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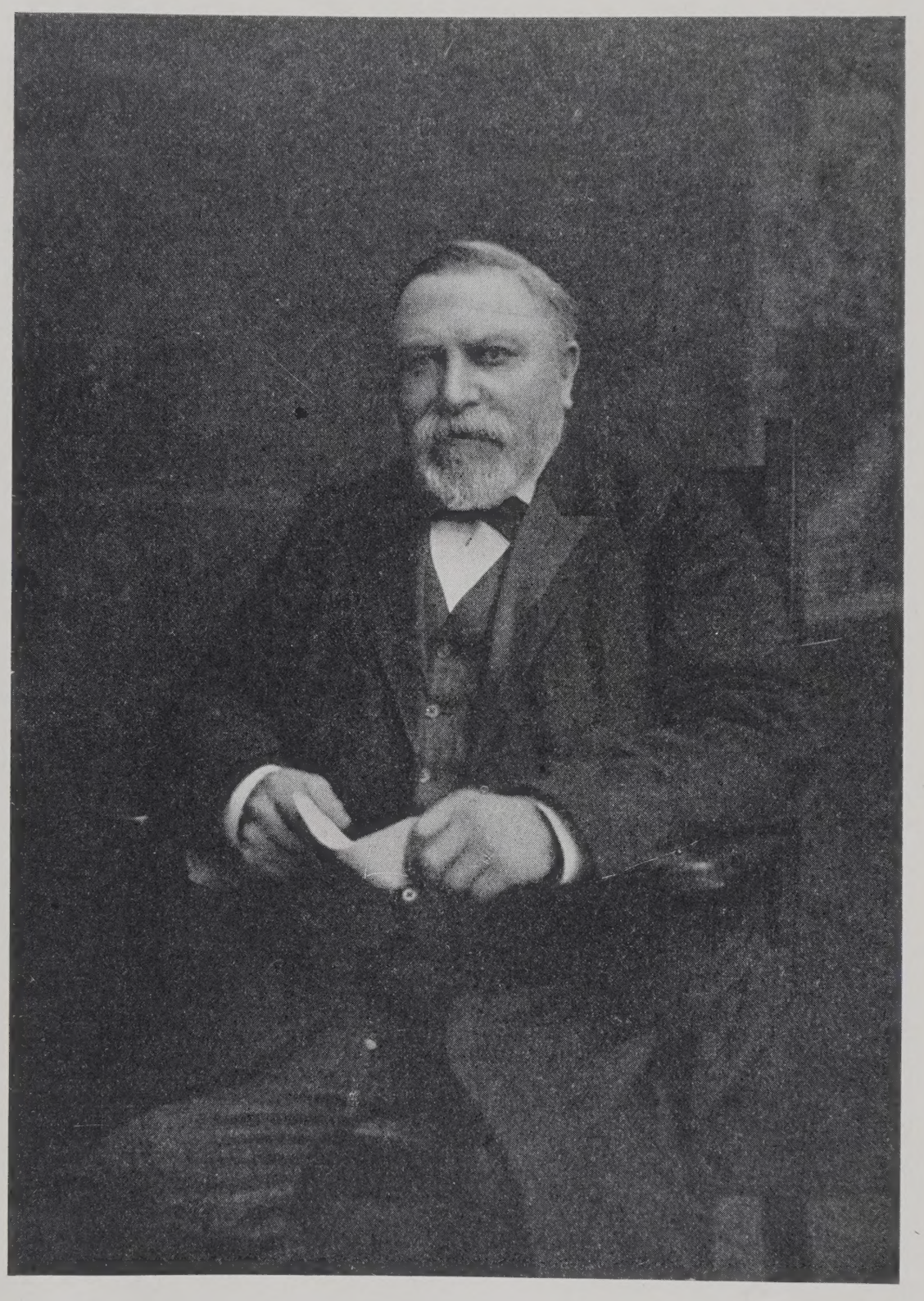

GEORGE PAUL, V.M.H., J.P., C.C.

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— TO —

GEORGE PAUL, V.M.H., J.P., C.C.

THE SEVENTY-FOURTH VOLUME OF "THE GARDEN"

Is dedicated.

AMONG those who have devoted their lives to horticulture, Mr. George Paul occupies an honourable position, and it is a pleasure to dedicate a volume of THE GARDEN to one who has done so much for the advancement of horticulture and Roses in particular. Born on December 8, 1841, Mr. Paul was subsequently for two years a pupil at the well-known firm of Mr. Charles Fisher of Handsworth, whence he joined his father at Cheshunt on September 29, 1860. In 1867 he succeeded his father as head of the business at Cheshunt, a position he has retained until the present day. As a raiser of new Roses Mr. Paul has done good work, Duke of Edinburgh, Lord Clyde, Sultan of Zanzibar, the first Hybrid Tea (Cheshunt Hybrid) and S. Reynolds Hole being a few that owe their existence to his efforts. He was one of the founders of the National Rose Society, and has from its inception until the present time occupied a position on the committee of that society. Mr. Paul also took a prominent part in the resuscitation of the Royal Horticultural Society, joining the Council when it left South Kensington and secured a temporary home in the London Scottish Drill Hall, and he also assisted in organising the first Temple Show. As an exhibitor and judge he has from 1861 up till the present year taken a foremost place at the leading shows throughout the country and superintended the magnificent groups shown by the firm at the Temple, Holland House, and National Rose Society's shows. During such a long and distinguished career Mr. Paul has known many famous men in the horticultural world, among them being Dr. Lindley, Sir Joseph Paxton, Dean Hole, Mr. Marnock, the Rev. Joshua Dix, Mr. Gibson of Battersea Park, and most of the leading nurserymen of two or three generations. The advance that has been made in horticulture during Mr. Paul's life is very great indeed, and he has seen the development of the Hybrid Tea, Polyantha and wichuraiana Roses. He remembers the growth of the florist's Begonias and Gladioli, having numbered among his friends M. Souchet, the founder of the modern Gladiolus, and Mr. John Laing of Forest Hill, the developer of the first-named flower. Mr. Paul acted as one of the jurors at the Universal Exhibition in Paris in 1889; at the Paris Quinquennial Exhibitions of 1905 and 1910; and at the great Ghent Exhibition of 1908. Since THE GARDEN was founded in 1871 Mr. Paul has contributed articles from time to time, especially in his younger days. He was one of the first to have the Victoria Medal of Honour in Horticulture bestowed upon him, an honour that was well deserved. In addition to his work in the interests of horticulture, Mr. Paul has for many years taken an active part in civic affairs, has long been a Justice of the Peace for Hertfordshire and senior member for Cheshunt on the Hertfordshire County Council, and since its commencement he has been a member of the Educational Committee of that body. In the latter capacity Mr. Paul's love of gardening has induced him to take a prominent part in the formation of school gardens throughout the county. We dedicate this volume to one who has devoted his whole life to the noble art of gardening, and hope that he may for many years be spared to continue the good and useful work that he has so willingly undertaken.

INDEX.

A.

Abelia floribunda, 363
Abies firma, 26
Acacias, 243
Achilleas, 254
Actinotis Helianthii, 633
Adenostyles albida, 622
Agapanthuses, treatment of, 604
Ageratum, treatment of, 566
Allamanda grandiflora, 472
Allotment flowers, 447
Alpine flowers under glass, 149, 174, 177, 181, 198, 223, 238; plants in window-boxes, 577
American blight or woolly aphis, 572, 584
Anchusa italica Dropmore variety, 278
Anemone blanda, 186; nemorosa Allenii, 247
Anemones, alpine, 138
Anguloa Cliftonii, 70
Annual flowers, a border of, 114
Annuals, 211; climbing, 161; for autumn sowing, 457; sweet-scented, 121
Antholyza paniculata major, 597
Apple Ard-Cairn Russet, 578, 585; Charles Ross, 4; Chelmsford Wonder, 596; Flower of Kent, 266; Lane's Prince Albert, 646; Mere du Ménage, 646; Red Victoria, 479; Rev. W. Wilks, 479; Round Winter Nonsuch, 497; scab disease, 484; tree diseased, 12; trees cankered, 491; twigs diseased, 108; Wagener, 210; William Crump, 46
Apples, gathering and keeping, 551; late dessert and culinary, 152; spotted, 12; the Crab, 267
Apricot and its culture, 496, 524
Arabis albida in the rock garden, 621
Arctotis grandiflora, 459, 495
Arenaria balearica, 266; montana, 302
Arum Lilies, 417, 477
Ascot garden, plants in an, 450
Asparagus beds, 234, 338, 536; how to prepare, 608
Aspidium angulare proliferum, 561
Association, Metropolitan Public Gardens, 161
Aster ericoides Perfection, 531; Novelty, 555; Peggy Ballard, 505
Astilbe Arendsii Salmon Queen, 382; Venus, 382
Astilbes, 233
Auricula Canary Bird, 247; Dorothy Cutts, 247; Mai, 247; Phyllis Douglas, 194; revival of the, 237; Roxburgh, 218; Victor, 218
Australian plant, an interesting, 633
Azaleas, 211, 251, 477; hardy, 563

B.

Barr, Peter, Memorial, 410
Beans, Broad, 140; culture of Runner, 190; Dwarf French, 240; French Climbing, 270; staking Runner, 304; trials of Runner, 614
Bedding plants, 542; suggestions for, 214
Beetroots, lifting and storing, 516
Begonia fuchsioides, 307; Gloire de Lorraine, 103, 175; Mrs. W. L. Ainslie, 354; Rochfordii, 626; Rose Queen, 274
Begonias, transplanting seedling, 105; tuberous, 181, 269, 489; tuberous-rooted, 126; winter-flowering, 561
Berberis coccinea, 574
Berried plants in the greenhouse, 609
Bifrenaria bicornaria, 274
Blackberries for bottling, 606
Blackthorn, double-flowered, 203
Blanching Leeks and Celery, 440
Blue border, plants for a, 531
Bog garden, 245; and its formation, 569
Boltonia asteroides, 438
Books—
"Algeria, Flora of," 47
"Alpine Flowers and Rock Garden," 590
Booklets, some dainty, 182
Catalogue, an instructive, 10
"Charm of Gardens," 590
"Chrysanthemums, The Culture of," 94
"Code School Garden and Nature-book," 590
"Daffodils," 554
"Fern Gazette, The British," 34, 160
"Garden Annual," 34
"Garden Fayre, The," 94
"Garden Planning," 626
"Gardens of Delight," 147
"Horticultural Directory for 1910," 46
"House and Garden," 383
"Ideal Garden, The," 206
"Lawns," 84
"Notes for Teachers, Descriptive," 206
"Orchids," 590
"Orchids for Everyone," 626
"Rock and Water Gardens," 283
"Root and Stem Vegetables," 554
"Rosa, The Genus," 382
"Roses, A Shilling Book on," 206
"Roses of the Old and New Worlds," 283
"Royal Horticultural Society's Classified List of Daffodil Names, 1910," 590
"Sweet Pea Note-book," 590
"Sweet Peas, A Book About," 34
"Sweet Peas, All About," 34
"Vegetables and Flowers from Seeds and Roots," 170
"Wall Pictures, Longman's," 94
"Wood and Garden," 383
Border, blue flowers for, 134; plants, 156
Bougainvillea dropping foliage, 384
Bougainvilleas and their culture, 17, 38
Bouvardias, 127, 215, 472
Box edging, how to plant, 576, 607
Brasso-Cattleya Wellesleyæ, 94
Briars, Hybrid Sweet, 315
British Fern Society, 410; fruit show, 521
Broccoli, 187; a useful early, 128; in spring, 270
Brussels Sprouts, 157; and Cauliflowers, 118; for winter and spring, 598; planting, 289
Bryonia dioica, 129
Buddleia variabilis gigantea, 454; pruning, 169
Bulbs in fibre, 514; in pots, 441; lifting, 342; planting, 517

C.

Cabbage, spring, 429; Winningstadt, 460
Cabbages for spring, 382; Savoy, 400; transplanting, 204
Cacti, 276; plague in Queensland, 197
Cæsalpinia Gilliesii, 435
Calandrinias, 113
Calanthe Cooksoniæ giganteum, 578; crocata, 182; densiflora, 554
Calceolaria integrifolia, 50, 75; violacea, 102, 122
Calendula Sulphur Queen, 382
Callicarpa purpurea, 623
Camellia not flowering, 147
Campanula, a well-grown, 548; lanata, 562; pyramidalis alba, 645; Vidalii, 402
Cannas, 99, 108; from seed, 157; in the greenhouse, 301
Capsicums, 127
Carnation Edith Waters, 306; Empire Day, 298, 312; Forester, 406; Lady Alington, 505, 638; Miss Tatton, 119; Mrs. C. F. Raphael, 247; Mrs. C. W. Ward, 578; Mrs. Crook, 638; Mrs. Everard Martin-Smith, 306; Mrs. J. A. Reynolds, 406; Mrs. Robert Berkeley, 382; Mrs. T. E. Henwood, 402
Carnation Queen Mary, 306; Regina, 555; R. F. Felton, 182; Rex, 638; Scarlet Glow, 531; Shasta, 531; the Perpetual-flowering, 581, 606; White House, 531
Carnations, 217; border, 52, 625; Malmaison, 388; seedlings failing, 183; Tree, 257
Carnivorous plants, two interesting, 646
Carrots, how to thin, 304; protecting autumn-sown, 599; winter and spring, 400
Catalpa and climbing Rose, 358; nearly dead, 355
Catasetum fimbriatum aureum, 531
Cattleya Adula, 479; Vale Bridge variety, 454; Artemis, 382; Basil, 531; dietrichiana, 354; Duce magnifica, 505; Dusseldorfei Undine Westonbirt variety, 247; hardyana Holford's variety, 454; Iris King Edward VII., 478; lawrenceana Mary Regina, 273; Lengæ, 505; lucida, 602; Mendelii King George, 354; Pearl McBean, 247; Princess Victoria, 273; Queen Maud, 273; Stuart Low, 354; Miranda Westonbirt variety, 70; Mossiæ Magali Sander, 274; o'brieniana alba, 382; percivaliana Westonbirt variety, 94; Robert de Wavrin Westonbirt variety, 182; Schröderæ The Prince, 118; Trianæ Magali Sander, 70; Warscewiczii Low's variety, 382; Othello, 406
Cauliflowers, 232
Ceanothus divaricatus, 423; thyrsiflorus, 303; veitchianus dying, 342
Celeriac, 223
Celery failing, 135; how to grow, 109; trenches, 180
Cestrums, 264
Cherries, Morello, 337; grafting, 35
Cherry, a beautiful flowering, 229
Chestnut shoot, an interesting, 181
Chestnuts, Spanish, decaying, 207
Chicory, 300
Chimonanthus fragrans, 66
Choisya ternata, 414
Christmas Roses, 453, 477, 637
Chrysanthemum Betty Spark, 505; Hollicot Golden, 505; Lady Furness, 626; Mrs. Gilbert Drabble, 626; Pearl White, 505; White, 478; Yellow, 478; inodorum, 473; maximum, 364; plant groups, 582
Chrysanthemums, 43, 66, 88, 106, 353, 404, 459, 486, 542; failing, 566; feeding, 417; new, 531, 542, 555, 578, 602; single, 582, 606, 619; potting, 263; stock plants after flowering, 600; trial of single, 138
Cineraria Feltham Beauty, 194
Cinerarias, 215; at Farnham Royal, 210
Clarkias as greenhouse plants, 451
Clay banks, the planting of, 409
Clematis alpina, 338; indivisa, 276; in New Zealand, 527; in open ground, 19; layering, 352; montana, new varieties of, 119
Clianthus Dampieri, 207; puniceus albus, 363
Cliffs, planting, by the sea, 487
Clivia King George, 306
Cœlogyne cristata, 60
Colchicum speciosum album, 525
Coleus, propagating, 104
Coleworts, 349
Collinsia bicolor, 155
Colour descriptions of flowers, 310; in the autumn garden, 533, 559
Columnea magnifica, 42
Colutea longialata, 527
Convolvulus mauretanicus, 549
Corn Salad in winter, 512
Corydalis bulbosa Halleri, 379; solida, 226
Cosmos Rose Queen, 382
Cotoneaster rotundifolia, 611
Couve Tronchuda or Portugal Cabbage, 548
Cowslip, the Jerusalem, 213
Crab Apple John Downie, 482
Crab, the Siberian, 3
Cratægus Pyracantha Lelandii, 98
Crinum purpurascens, 94, 112, 514
Crinums, 112, 160
Crocus Sieberi versicolor, 174; the fascination of the, 113, 129, 141, 153, 165, 177, 189, 201, 213
Crocuses, garden, 496
Croton Golden Ring Lynwood variety, 555
Cucumbers, a fine crop of, 424; in a frame, 133; in winter, 577; Ridge, 244
Currants, big-bud in Black, 168
Custard Marrows, 220
Cyananthus lobatus, 562
Cyanide of potassium, fumigating with, 86
Cyclamen, 47; Coum album, 379; from Epsom, 158
Cydonia japonica, pruning, 295
Cymbidium lowgrinum Rosslyn variety, 146
Cypripedium Alabaster magnificum, 22; Angela, 479; Atlas, 46; Bantam, 46; Britannia, 554; Charlesworthii Temeraire, 602; Curtisii Sander's variety, 354; Dante rotundiflorum, 650; Gaston Bultel, 650; how to repot a, 648; Iolanthe, 602, 609; King George V., 530; leeanum Excelsior, 94; Lord Wolmer, 71; Princess May, 554; Reginald Young, 554; Shogun, 505; Waterloo, 626
Cytisus Dallimorei, 274, 291

D.

Daffodil and Tulip notes, 164; Fire Dome, 190; in a tea-pot, 245; notes, 89, 101, 114, 130, 154, 225, 258, 388, 412, 425, 449; from New South Wales, 406, 644; of the future, 252; one aspect of the, 221; season, the, 193
Daffodils, 411; and Tulips at Vincent Square, 142; at Birmingham show, 241; at Vincent Square, 195, 202; for a border, 295; for rough grass, 330; Royal Horticultural Society's classification of, 601, 606, 619
Dahlia Flagstaff, 505; Orange Fire King, 274; the development of the, 481
Dahlias, new, 454, 478; trials of, 490
Daisies, Barberton, 31
Daisy, Alice, 337
Daphne Mezereum and its culture, 7; Mezereum Paul's White, 255
Dean, Mr. Alexander, V.M.H., 264
Delphinium Belladona semi-plena, 354; Lamartinii, 354; Purple Velvet, 330; Theodora, 330
Delphiniums, three good, 351
Dendrobium Duchess of Albany, 94; Mrs. Fenton Arnton, 118; Phalænopsis schröderiana album Sander's variety, 22
Dianthus petræus, 155; graniticus, 399
Digging competitions, 211; and trenching, 635
Disa Lacera multifida, 118
Disanthus cercidifolia, 574
Draba ciliata, 275
Dracæna australis, 358
Dry soils, plants for, 90; walls in winter, 610

E.

Edgings, Box and other, 87
Endive, Batavian and other, 647
Epi-Cattleya Nebo, 146
Eremuri, bed of, 314
Erlangea tomentosa, 46
Escallonia langleyensis, 351; philippiana, 377

Eschscholtzia Mikado, 622
Eucalypti in Britain, 250
Eucalyptus Gunnii, 250, 286, 311; pulverulenta, 551; seedlings, 506
Eucharis-growing, 342
Eupatoriums, 579
Euphorbia Characias, 87, 138; Wulfenii, 39, 62, 74, 87
Exhibition, the proposed International Horticultural, 185; schedule of, 618

F.

Fabiana imbricata, 363
Fence, plants for a rustic, 591
Fern spores, longevity of, 38, 63
Ferns, a group of, 258; Curly, 158; Filmy, 228; hardy, 254; Hart's-tongue, 390
Figs, a word about, 403, 410; against walls, 385
Finocchio or Florence Fennel, 83
Flower beds, 231; raising soil of, 558, 582; exhibitions, present-day, 173
Flowers, fruits and vegetables for exhibition, 285; seasonable work among, 633; the Queen of, 493; winter colours, 13, 50
Forestry Museum at Kew, 286
Forget-me-nots, 392
Foxgloves, self-sown, 435
Frames, ventilating, 93; and greenhouses, ventilating, 624
Francoa ramosa, 206
Freesias, culture of, 464
French gardening, 15, 74, 160
Fritillaria imperialis chitralensis, 146
Fruit, gathering, 465; planting, 1; trees, gross growth in, 472; and bushes for small gardens, 125; grafting, 115; grease-banding, 488; lifting and planting, 81; on lawns, 620; planting, 552; pruning and training, 44; root-pruning, 553; washing and spraying, 608
Fruits, some new, 426
Fuchsia Sylvia, 382
Fuchsias as pillar plants, 206; in winter, 517
Fungi, edible and poisonous, 286
Fungus, a remarkable, 447

G.

Garden, a deserted, 327
Geraniums, scented-leaved, 392
Gerberas, growing, 368
Gesnera Orange King, 531
Gesneras and their culture, 389
Gladioli, planting, 143
Gladiolus Europa, 430; failing, 442; Grafin Degenfeld, 430; Karl Luz, 430; King Edward VII., 354; Le Luna, 454; primulinus, 430; Rathline, 478; Safrano, 454
Glamis Castle, autumn garden at, 586
Gloxinias, 205; in a cool place, 14
Goldfish, disease in, 175
Gooseberries and Currants as cordons, 179, 560; on trellises, 28; protecting, 70; pruning, 595
Gourds, ornamental, 513
Grape Gros Guillaume, 530, 546, 571; Vine, summer ailments of, 297
Grapes, berries scalding, 453; colouring, 341; how to grow in ordinary garden soil, 4, 43, 62; thinning, 281
"Greek Lavender," 14, 26
Greenhouse shelves, plants for, 348
Grevillea alpina, 150
Grieve, Mr. James, 29
Gypsophila carminea, 382

H.

Hardy plants, interesting, 348
Heath garden in midwinter, 122
Heaths, propagating, 207; the hardy, 19
Hedychium, the, 389
Heimia myrtifolia, 248
Helianthemums, 596
Heligan Gardens, Cornwall, 300
Heliotropium Favourite, 306
Heracleum mantegazzianum, 526
Herbaceous border, 589; borders, 239, 578; plants, 405
Herbs, 244; planting, 256
Hidalgoa Wercklei, 334
Hillhouse, the late Professor, 99
Hippeastrum Calypso, 218; Cardinal Wolsey, 218; Gereant, 218
Hippeastrums, potting, 194
"Holland in Ireland," 478
Hollies, 259
Hollyhocks at Shrewsbury, 458; fungus-proof, 495, 535, 582
Horticulture in Scotland, 123, 223; in 1759 and now, 123
Horticultural societies, the value of, 445
Hot-beds, making, 92
Houlletia Sanderi, 182
Humea elegans, 42, 63
Hyacinth, revival of the, 185
Hyacinths, how to pot, 528
Hydrangea Hortensia, 257; Mme. Emilie Mouilliere, 247; Ornament, 247
Hydrangeas, how to propagate, 340; taking cuttings of, 260
Hypericum patulum, 620

I.

Ideal home exhibition, 208
Impatiens Holstii, 17
Indoor decoration, flowering plants for, 290
Inoculation of garden crops, 174
Insect friends and foes, 84; pests on plants and trees, 637
Institution, Gardeners' Royal Benevolent, 49
International Horticultural Exhibition, 545, 617
Iris alata, 645; albo purpurea colchesterense, 330; Fulvala, 330; hybrida Isoline, 306; Italia, 306; Kæmpferi, 368; Pavonia, 473; Spanish, in a Highgate garden, 633; stylosa, 122; failing to flower, 110, 150, 174; the Japanese, on a hill-top, 364; tingitana, 223, 350
Irises, 321; a garden of, 363; about, 307; Bearded, 438; Flag, 257; in bowls, 591; two new, 337
Ivy, planting and increasing, 20

J.

Japan-British Exhibition, flowers at, 373
Japanese Wineberry, 207

K.

Kalanchoe kewense Excelsior, 330
Kalanchoes and their culture, 361
Kales, the newer, for winter and spring, 5
Kerria japonica, 574
King Edward VII., the late, 237
Kirengeshoma palmata, 573, 601
Krelage, Mr. Ernest H., 212

L.

Lachenalias, 442
Lælia de Gusteana Thompsonii, 505
Lælio-Cattleya Golden Oriole tigrina, 454; Berthe Fournier magnifica, 478; Endora Mark Hambourg, 273; Firminii, 22; Golden Oriole superba, 530; Goldfinch Westonbirt variety, 146; luminosa magnifica, 274; Olivia, 578; Ortrude magnifica, 531; Pauline, 650; Trimyra, 182
Lapagerias, 141; not flowering, 419
Lawns, mowing, 257
Leaf-mining grub, fumigating for, 150, 175
Leeks, 217
LEGAL POINTS—
Gardener's notice, 420
Landlord and tenant, 218
Master and servant: Notice, 319
Trees, adjoining owners', 10
Valuation, 10
Leggy plants, treatment of, 56
Leptosiphon hybridus, 437
Lettuce Green's, Favourite, 406; Heartwell and Supreme, 406; Icehead, 406; Stag's-horn, 449; Sutton's Favourite, 437; White Favourite, 406
Lettuces, 268; for summer use, 140; in hot weather, 279
Leucojum, 101
Ligustrum Henryii, 531
Lilac, a hedge of, 7
Lilies failing, 455; hardy, 23; in pots, 192; late-flowering, 466
Lilium auratum, 192; giganteum, 142, 605; philadelphicum, 587; tigrinum, bulblets of, 603
Liliums in pots, 316; under glass, 169
Lily of the Valley as a pot plant, 28
Lily, the Madonna, 329, 453, 474
Lime in the soil, 375
Linaria bipartita alba, 203
Linum alpinum, 474
Liverpool Botanic Gardens, 336
Lobelia cardinalis, 523; Gloire de St. Anne's, 505; winter treatment of, 541; propagating, 132; Sam Barlow, 454
Loganberry, how to prune the, 452
London County Council Parks officer, 557, 570, 594
Lonicera hildebrandiana, 490; pileata, 194
Lowberry, treatment of the, 580
Luculia gratissima, 361
Lupine failing, 330
Lycaste peruviana, 274; Skinneri armeniaca, 46; Hellemen's variety, 194
Lychnis, increasing and growing the, 144

M.

Macleania insignis, 247
Magnolia fuscata, 303; Watsonii not flowering, 369
Magnolias dying, 183
Marguerite, culture of the, 636
Manures, liquid, 441
Maples, Japanese, 100
Marguerite Mrs. F. Sander, 274
Mealy bug on Vines, 86
Melon Early Favourite, 430; Golden Beauty, 454, 524; growing, 89
Melons, how to grow early, 4; late, 439
Mendel's Law, 445
Mertensia echioides elongata, 306
Mice, field, destroying, 250, 322
Michaelmas Daisies and their culture, 538
Mill-race changed into a rock garden, 415
Miltonia bleuana Hessle variety, 247, 277; Phalænopsis McBean's variety, 218; vexillaria lambeauiana, 354; Memoria Baron Schröder, 273; Snowflake, 306; Warscewiczii leucochlia, 650
Mint in boxes, 91
Moles, catching, 151
Montbretias, 529
Montanoa mollissima, 623
Morisia hypogœa, 379
Mushrooms, 296; how to grow clean, 601
Myosotis, 313

N.

Narcissi, forced, 163; forcing, 458; some new, 475; three new, 379
Narcissus Apricot Queen, 226; Blackwell, 130; Colleen, 247; Cooksoniæ, 247; Firetail, 462; Henry Irving, 174; Johnstonii King and Queen of Spain, 298; Poeticus going blind, 162; Poeticus Matthew Arnold, 218; Poeticus plenus, 275
Nasturtium, Peruvian, 55, 98
National Chrysanthemum Society's conference, 628
National Hardy Plant Society, 434, 470
National Rose Society's annual meeting, 617
National Sweet Pea Society's exhibition, a criticism of, 374; trials, 357
National Vegetable Society, 436, 493, 507, 618
Nectarine Humboldt, 403, 446
Nemesias and their culture, 130
Nemophila insignis, 367
Nepenthes nobilis, 555
Nepeta Mussinii, 413, 471, 534, 558
Nerine elegantissima Mansell's seedling, 555
Neviusia alabamensis, 203
New plants, 22, 46, 70, 94, 118, 146, 182, 194, 218, 247, 273, 306, 330, 354, 382, 406, 430, 454, 478, 505, 531, 554, 578, 602
Newnes, Sir George, Bart., death of, 298
Nitrate of soda, how to use, 529
Notospartium Carmichaelæ, 143, 338
NURSERY NOTES—
G. Bunyard and Co., 548
Ker and Sons, 638
Laxton Brothers, 578
Pennell and Sons, 566
R. Veitch and Sons, 530
Stuart Low and Co., 536

O.

Oak, old, in Kyre Park, 100
Odontioda Bradshawiæ Westonbirt variety, 554; Cecilia, 479; Charlesworthii Theodora, 247; gattonensis, 306; Goodsoniæ, 194; keighleyensis Fowler's variety, 22; King George V., 273; Royal Gem, 273; St. Fuscien Imperator, 306; Vuylstekeæ Walton Grange variety, 330
Odontoglossum ardentissimum Norman Cookson, 194; arnoldianum, 218; Black Prince, 118; Ceras, 118; Ceres Goodson's variety, 194; magnificum, 650; Plumpton Hall variety, 626; Circe, 554; crispum Magnum Bonum, 247; St. Fuscien, 218; eximium Emperor, 274; eximium E. C. Rogerson, 118; Empress of India, 273; Gladys H. W. Cheal, 182; Memoria King Edward VII., 273; Promerens, 273; regale rosefieldiense, 218; Rossianiæ rubens, 218, 238; Rouge Dragon, 626; splendens, 118, 141; thompsonianum Gatton Park variety, 182
Olearia macrodonta, 448
Oncidium Mantinii Lowii, 430; Sanderæ, 382
Onions, 429; bending down, 341; thinning, 328; transplanting, 204, 489
Opuntias, Spineless, 88
Orchard house, 227
Orchards, care and management of, 52, 83, 125, 188
Orchids, notes on: Cattleya, the labiata section of, 277; Dendrobiums, 128; Disas, 572; Epidendrums, 487 Medusa's Head, 52; Miltonias, 348; Oncidiums, 400; soil for, 634; Zygopetalum Mackayii, 6
Osmunda palustris crispato-congesta, 247

P.

Pæonies, herbaceous, 509, 546; Tree, position for, 23
Pæony, an old Tree, 398
Paint, use of green, 173
Palms failing, 543
Pansies, how to increase, 428; Tufted, in the rock garden, 18
Pansy blossoms, removing spent, 317
Parkinson, John, 288, 300
Parks, spring lessons from the, 197
Parsley, early, 40
Parsnips for flavour, 191
Paths, how to make garden, 85; shrubs for bordering, 134
Pea, Exhibition, 430; Hobday's Essex Wonder, 279; Magnum Bonum, 430; Moneymaker, 406; Prestige, 406; Prince of Peas, 406; Satisfaction, 430; Seedling No. 223, 479; the Shamrock, 625; Windsor Castle, 430; Yorkshire Hero 430
Peach trees dropping buds, 184; spring treatment of, 133
Peaches and Bananas, 427; and leaves dropping, 394; and Nectarines, 68; autumn treatment of, 463; in an unheated greenhouse, 105
Pear tree, pruning, 32
Peas, Autocrat and Gladstone, 582; early, for amateurs, 82; garden, 25; late, 300; mildew on, 212; new varieties, 599; some good, 449; some good late, 620; Sugar, 83
Pelargonium White Queen, 306
Pelargoniums, 375; in winter, 517; potting, 342; scented-leaved, 112
Pentstemon Hartwegii, 2; Myddleton Gem, 55
Pentstemons, 217; propagating, 476
Perennials, border of, 10; how to increase hardy, 588
Perry, Mr. Amos, 224
Pescatorea Camellosa, 382
Petunias, 347
Phaio-Calanthe Schröderæ, 146
Phaius Cooperi, 505
Phalænopsis casta superbissima, 194
Philesia buxifolia, 375
Phlox Canadian, Perry's variety, 231; Elizabeth Campbell, 454; Ellen Willmott, 505; Frau Antonin Buckner, 406; Phlox rœmeriana, 2
Phloxes, herbaceous, 145; planting, 503; some white, 394
Pineapple Smooth Cayenne, 608
Pines, destruction of, 325
Pinks on a dry wall, 486; propagating, 329
Plane tree disease, 262, 287; as a danger to health, 346
Planting North and South, 452, 495; season, hints for, 448
Plants and flowers, seasonable, 632; for carpet bedding, 11; interesting hardy 348; propagating, 116
Plum, the Myrobalan, 179
Plums, 53
Plunging pot plants, 312
Poinsettias after flowering, 103
Poisonous plants, 199, 239, 250, 274
Polyanthus Ladham's Brilliant, 247
Polyanthuses, 5; and Primroses, how to increase, 380; from seed *versus* division, 18; late-sown, 253; Mr. J. Crook's, 262
Polypodium Schneideri, 17; vulgare, 46; cambricum, 71
Pot plants, soil for, 489
Potato and root crops of Great Britain, 618; Dalmeny Early, 479; degeneration of the, 334, 359; Den's Favourite, 406; disease, a little-known, 560; Faithlie, 406; is it degenerating? 397; Selected Ashleaf, 406; Snowdrop, 16, 38; Walker's Seedling, 406; Webb's First Crop, 449
Potatoes, 64; artificial manure for, 160; earthing-up, 230, 262, 316; manures for, 95; seed, 635; some wonderful, 512
Potentilla, how to grow, 156
Poterium obtusatum, 434
Potting plants too deep, 317
Primroses and Polyanthuses, 199; doubles, reverting, 271, 298

Primula Forbesii, 361; ciliata General Stewart, 218; obconica, 179, 223; grandiflora, 200; pulverulenta, 347, 386; sinensis, 124; Unique, 271
Primulas, Chinese, 193; and Persian Cyclamens, 97; seedling Chinese, 135
Pruning, summer, 360, 364
Pteris aquilina, 365
Pulmonaria officinalis, 213, 222, 250
Pyrethrum Snow White, 306

Q.

Queen of Autumn, the, 557
Quince branch for inspection, 148; the, 153
Quinces, 186

R.

Radishes for winter, 461
Ramondia pyrenaica, 327
Ranunculus Evening Star, 306, 313; Lyallii, 379, 399, 435
Raspberries after fruiting, 412, 483; and Blackberries for bottling, 571; pruning and planting, 8
Raspberry canes, thinning out, 523
Reading, annual flowers at, 418
Retinosporas, variation in, 331
Rhododendron Alice, 274; Juliana, 274; primulinum, 182
Rhododendrons, hardy, 291; uncommon, 345
Rhus typhina laciniata, 274
Robinia Kelseyii, 325, 306
Rock Cress, double-flowered, 230
Rock garden, 28, 210; a pretty, 350; and dry walls, 188; at Crowborough, 227; dwarf trees and shrubs for, 611; Iberis and Sempervivums in the, 573
Rockery and pond, 214; a tangled, 201; making a small, 491
Rockfoils, 55
Romneya Coulteri in winter, 407
Roof gardens, 166
Room plants, 180
Root crops, 484; pruning, 463
Rosa bracteata Maria Leonida, 315; Freda, 330; multiflora Flame, 382; pimpinellifolia, 598; rugosa, rare varieties of, 279
Rose annual, 209; Antoine Rivoire, 323; Austrian Copper, 167; beds, filling up gaps in, 176; Blush Rambler, 501; Climbing Leuchtstern, 42; common enemies of the, 502; Conrad F. Meyer, 5; Danæ, 497; Daphne, 454; Dorothy Perkins, 54; as a standard, 575; Duchess of Westminster, 274; Entente Cordiale, 307; Excelsa, 274, 315; festival, a, 310; Frau Alfred Mauthner, 414; garden, 31, 54, 67, 90, 100, 115, 131, 146, 155, 167, 176, 194, 200, 214, 224, 229, 246, 255, 279, 289, 307, 315, 339, 349, 362, 378, 390, 401, 414, 426, 438, 451, 461, 485, 515, 524, 537, 550, 562, 575, 598, 609; a national, 494; by the sea, 485; plan of, 438; General Gallieni, 272; General Macarthur, 546; growing in West Indies, 609; near London, 40; Harry Kirk, 353; hedge, 391, 401; hedges, 498, 515, 537; heps on fruits, 353; Jessie, 155; jottings, 91; Juliet, 215, 354, 500; Lady Hillingdon, 147; Lena, 362; Maréchal Niel, 176; Mary Countess of Ilchester, 354; Minnehaha, 401; Mme. Edmée Metz as a standard, 583; Mme. Plantier, 439; Mrs. A. R. Waddell, 635
Rose Mrs. Foley Hobbs, 354; Mrs. Herbert Stevens, 486, 505; Mrs. James Ferguson, 524; names, the spelling of, 123; notes from America, 497; pergola, a, 391; pergola at Stratfieldsaye Rectory, 562; Rambler Trier, 255; Réné Collette, 451; show, the autumn, 469; sports, climbing, 272, 339; Tea Rambler, 414; the Altai, 494; the Lyon, 250; terms, explanation of, 159; wichuraiana Diabolo, 391; François Fouçard, 167; Leontine Gervais, 362; Rose Delight, 414; William Allen Richardson, raiser of, 311; yellow, for heated greenhouse, 12; yellow Rambler, 11
Rosemary, 281; a veteran, 620
Roses, a chat about, 501; a plea for old, 500; after flowering, 315; an amateur's, in Ireland, 647; and caterpillars, 175; artificial manures for, 111; as coat flowers, 31; as pot plants, 622; at railway stations, 411; Australian analysis of, 194; Banksian, 315; best six for general use, 138; Boursault, 339; Christmas, 9, 23; crimson, 378; delicate, 1908-9, 299; disbudding, 292; fragrant, 71; for beds, 349; for market, 504; for new beds, 105; for potting up, 11; for table decoration, 511; for unsightly corners, 18; Gardenia and Königin Carola, 522; Hybrid Tea, as half-standards, 131; in cold greenhouse, 59; in pots, 246; mildew-proof, 167; Nabonnand's, 635; new, 505; new, for forcing, 598; new, of the year, 426, 451, 461, 471, 475, 485, 499, 515, 525, 537, 550, 562, 575, 585; on banks, 362; on walls, 229; planting, 540; planting, under glass, 17; popular market, 5; protecting standard, 54; pruning, 100, 195; rambling types of, 499; scent of, 523, 583; single and semi-double, 623; selections of, 494; seven perfect, 401; single Irish, 117; some early, 294; some fragrant new, 622; standard, 215; standard, from cuttings, 362; strong *versus* weak, 610; suggested exhibition of pot, 186; sweet-scented, 155, 470; Tea and Hybrid Tea, with erect blooms, 12; in towns, 339; under glass, 647; weeping, 414; winter, for market, 535
Rubbish, how to dispose of, 9

S.

Sagittaria japonica flore-pleno, 67
Saintpaulia ionantha, 103
Salads, summer, 240
Salsify, 177
Salvias, 453
Sand, uses of, 565
Sarracenia Willmottæ, 274
Saunders, G. S., the late, 208
Saxifraga Boydii and its varieties, 141; Fortunei, 622; Milesii, 314; paradoxa, 462, 482, 510; pyramidalis, 266; scardica obtusa, 147
Saxifragas, summer-flowering, 325
Scarborough Lily, 432
Schizanthus grandiflorus Veitch's strain, 247; seedlings, 529
School gardening, 387
Scilla italica, 278
Scorzonera, 177
Seed drills, art of making, 180
Seedlings lost through frost, 625
Senecio glastifolius variety, 382
Shallots, lifting and storing, 381
Shortia uniflora grandiflora, 147
Shrewsbury Show, 421
Shrubbery, current work in the, 611
Shrubs and plants, how to protect, from frost, 7; choice, 93; evergreen, for small gardens, 19; for a north wall, 419; for an island, 603; for forcing, 593; for peaty soil, 395; for sandy river bank, 603; late-flowering, 433; planting evergreen, 564; pruning, 11, 100; summer-flowering, 309, 386; with coloured leaves, 376
Silver-leaf disease, 521, 559
Skimmia japonica, 229
Skimmias, 95
Slugs, 444
Smoke nuisance from burning leaves, 110
Snowdrop, Atkins's, 154
Snowdrops, raising from seed, 137
Sobralia Charlesworthii, 273; Cliftonæ, 218
Society, National Vegetable, 318
Soil fertility, increasing, 458; productiveness, 494
Solanum crispum, 65
Solidago spectabilis, 505
Sophro-Cattleya Doris Cobb's variety, 578, 585
Sophro-Lælio-Cattleya Althea, 602; Hon. Mrs. Barbara Wilson, 194
Sparmannia africana, 302
Spartium junceum, 415
Spinach, how to grow, 171; summer, 281; winter, 584
Spiræa discolor, 40, 389
Spring flowers, 205
Stenanthium robustum, 513, 534
Stocks, a new race of, 293
Stokesia cyanea, 549
Stopping and repotting plants, 317
Stove plants, repotting, 145
Strawberries, beds for, 353; Countess and Fillbasket, 483; in pots, 359; late, 439, 482, 522; layering, 294, 312; watering, 265
Strawberry, its culture and varieties, 377; Mark Twain, 330
Suburban garden, a, 412; a border in, 366; notes from a, 416
Succulents, a group of, 266
Summer-house, a gorgeous, 610
Surrey garden, notes and queries from a, 265, 276
Swede, the garden, 128
Sweet Pea chat, 6, 30, 54, 76, 102, 130, 154, 178, 201, 226, 253, 277, 302, 326, 351, 378, 401, 424, 450, 473, 496, 526, 548, 573, 597, 621, 644; Earl Spencer, 382; Elfrida Pearson, 382; Etta Dyke with six flowers on a stem, 139; Evelyn Hemus, 38, 62, 86; fertilisation, 27, 31; flower sprays, length of, 386; George Baxter, 151; Iris, 382; Ivanhoe, 330; Marjory Hemus, 306; Marion Cuthbertson, 382; Mrs. Charles Foster, 77; Mrs. F. A. Wellesley, 382; Mrs. Hugh Dickson, 379; National, Society's Annual, 73; a new, 103; Paradise Cerise, 306; Prince of Orange, 306; stem with six flowers, 162; Sunproof Crimson, 330
Sweet Peas, a criticism, 398, 410, 422, 434, 446, 458; at Kelvedon, 460; at Temple Show, 278; at Wem, 82; best twelve, 107, 123, 151, 187; classification of, 518; for garden decoration, 77; garden, 360; gathering, packing and exhibiting, 78; in the North, 63; germination of, 77; planting out, 216; growing on fish-netting, 79; raising, in boxes, 80; in shady places, 157; selecting, for exhibition, 367; Telemly, 251; three popular, 227; plants to use with, 201
Sydenham, Robert, a day with, 58
Symphoricarpus mollis, 531
Synthyris reniformis, 165
Syringa Bretschneideri, 314

T.

Table decoration, a unique, 512
Tacsonias for the cool greenhouse, 585
Temple Show, new plants at the, 273
Thomson, David, the late, 174
Thuya gigantea, 65
Tomato Carter's Sunrise, 171; fruits in spring, 589
Tomatoes, 405; feeding, 388; new, 455
Town or street trees, 334
Trees and shrubs in suburban gardens, 322; planting, 11; for towns, 286
Tropæolum tuberosum, 55, 150; planting, 193
Tulip, the May-flowering, 261
Tulipa kaufmanniana aurea, 241
Tulips at the Temple Show, 294; notes on, 526, 542; storing, 383
Turnip Dobbie's Golden Ball, 212; flea beetle, 300
Turnips, 313; early, 83, 140; hints on growing, 341; thinning, 329; yellow-fleshed, 424

V.

Vanda cærulea Blue Beard, 626; Sanderæ, 602; Westonbirt variety, 430
Vegetable Marrows, 157, 280; good, 174
Vegetables, preserved, 560; some good winter, 16; the cooking of, 594
Veitch, Mr. P. C. M., 632
Ventilating greenhouses and frames, 613
Viburnum Henryii, 505
Vine rods, cleaning, 625; summer ailments of the, 298, 324; the Kippen, 582
Vinery, the amateur's, 70
Vines, 429; making a border for, 567; mildew on, 417; planting young, 111, 150
Viola cornuta purpurea, 110
Violet La France, 181
Violets, 381; in frames, 613; not doing well, 59; some beautiful, 255
Violettas, the, 303

W.

Walks, planting paved, 26
Wall trees and hardy climbers, 612
Wallflowers, 242
Walls, dry, in winter, 610
Wasps and Cotoneaster, 274, 311
Water, garden, a, 267; Lilies, 249; plants manuring, 462
Watering plants, 305
Weeds, some desirable, 374
Willow, a little-known, 621
Window-boxes, 269
Winter flowers, 601
Wireworm and Tomatoes, 296
Wistaria multijuga, 551
Wistarias, unusual methods of growing, 574
Witsenia corymbosa, 2
Woburn experiments, 333
Woodland flowers in autumn, 469
Woodlice, 207

Y.

Yew, Holly and Beech hedges, 7
Yucca recurvifolia, 18

Z.

Zygo-Colax Charlesworthii rubida, 22

ILLUSTRATIONS.

A.

Achillea argentea, 254; ageratifolia, 254
Actinotus Helianthii, 634
Alpine house at Kew, 178
American blight on young Apple shoots, 572
Anchusa italica Dropmore variety, 278
Anemones from Parkinson's " Paradisus," 301
Annuals, a border of, 114
Apple Ard-Cairn Russet, 585; attacked by scab, 483; Chelmsford Wonder, 599; Lane's Prince Albert, 645; William Crump, 46
Apricot tree, 81
Arabis albida in the rock garden, 620
Arctotis grandiflora, 461
Arenaria montana, 302
Asperula hirta, 28
Aspidium angulare proliferum, 561
Aster D. B. Crane, 537; Delight, 539; Mesa grandiflora, 539; Perfection, 538
Auricula Phyllis Douglas, 202

B.

Banana, the red, 426
Beans, how to stake Runner, 305
Beetroots, lifting and storing, 516
Begonia Gloire de Lorraine, 102
Boltonia asteroides, 438
Border in Chalkwell Park, 485
Box edging, how to plant, 576
Briar, Hybrid Sweet, Catherine Seyton, 315
Bryonia dioica, 129

C.

Cabbage Winningstadt Improved, 460
Cabbages and Onions, planting, 204
Cacti, Spineless, 88
Calandrinia grandiflora, 113
Calceolarias, herbaceous, at North Collingham, 289
Campanula lanata, 563; pyramidalis alba, 548, 645; Vidalii, 402
Candytuft, an edging of, 416
Cant, Mr. Frank, 570
Capsicums for the greenhouse, 127
Carnation Empire Day, 312; house, 536; Mrs. T. E. Henwood, 401
Carnations, Malmaison, 389
Carrots, how to thin, 304
Ceanothus divaricatus, 425; thyrsiflorus, 363
Chestnut shoot in water, 181
Chrysanthemum Caledonia, 66; Eureka, 89; inodorum Bridal Robe, 472; Mrs. W. Parker, 30
Chrysanthemums after flowering, 600; how to retain the buds of, 404
Clematis indivisa, 527
Colchicum speciosum album, 525
Coleus, increasing, 104
Collinsia bicolor, 155
Columnea magnifica, 42
Convolvulus mauritanicus, 549
Crinum purpurascens, 112
Crocus aerius, 212; aureus lacteus, 126; chrysanthus, a feathered seedling of, 140; hyemalis Foxii, 188; Korolkowii Dytiscus, 153; lævigatus Fontenayii, 176
Cucumbers in a small garden, 424
Currants, big-bud in Black, 168
Cypripedium Iolanthe, 609
Cypripediums, how to pot, 648
Cytisus Dallimorei, 291

D.

Daffodil, Killara, a new Australian, 644
Daffodils, a box for carrying, 125; at Olton, 253
Daisy, a double-flowering, 339
Daphne Mezereum Paul's White, 255
Dean, Mr. Alexander, V.M.H., 263
Dionæa muscipula, an insectivorous plant, 646

E.

Eremuri at Manor House, Eastbourne, 314
Erica lusitanica, 279
Escallonia langleyensis, 351
Euphorbia Wulfenii and Yuccas, 40

F.

Ferns, a group of, 258; Filmy, 228; Tree, in the open, 300
Flax, alpine, 475
Foxgloves, self-grown, 435
Frames and greenhouses, ventilating, 624
Freesias and Fritillarias, culture of, 464
Fruit, collection of dessert, 531; trees, grease-banding, 488; planting, 552; pruning and training, 44

G.

Galanthus Atkinsii, 154
Geraniums, scented-leaved, 393
Gladiolus, planting, 193
Glamis Castle Gardens, 586, 587
Glory Pea in South Devon, 364
Gourds on pergola, 514
Grapes at British Fruit Show, 530; first-prize exhibit, 43; prize, grown in ordinary soil, 4
Grieve, Mr. James, 29
Gunnera manicata at Ascot, 451

H.

Haarlem Jubilee Show, 179
Helianthemums, new and old, 596, 597
Heracleum mantegazzianum, 526
Herbs for the garden, 244
Hot-beds, 92
Hyacinth, a floriferous, 240
Hyacinths, potting, 528
Hydrangea Hortensia, 257; in an Ascot garden, 450
Hydrangeas, how to propagate, 340

I.

Iberis and Cobweb Houseleek in rock garden, 574
Impatiens Holstii, 17
Iris albopurpurea colchesterense, 336, 363; Fulvala, 337; Kæmpferi, 365; the Peacock, 473; tingitana, 349
Irises, a border of Spanish, 633; Bearded 439
Ivies, planting and propagating, 20

K.

Kirengeshoma palmata, 573
Krelage, Ernest H., 211

L.

Leeks and Celery, how to blanch, 440
Leggy plants, treatment of, 56
Leptosiphon hybridus, 436
Lettuce, how to grow, 268; Sutton's Favourite, 437
Lilac, a hedge of, 7; Californian, as a wall plant, 303
Lilium auratum in pots, 192; giganteum, 142
Lily, the Madonna, 474
Linaria bipartita alba, 203
Lobelia, propagating, 132
Loganberry, how to prune the, 452
Lychnis, increasing and growing, 144

M.

Marguerites, how to grow, 636
Melon Golden Beauty, 524
Midland Daffodil Show, 246
Mill-race changed to a rock garden, 415
Miltonia bleuana Hessle variety, 277
Montanoa mollissima, 623
Myosotis in a pot, 392

N.

Narcissus Anchorite, 242; Apricot Queen, 226; Blackwell, 124; Challenger, 242; Fire Dome, 191; Firetail, 462; in a teapot, 245; King Edward VII., 515; Princess Juliana, 64; W. P. Milner, 152; White Star, 243
National Sweet Pea Show, 361; Society's outing, 376
Nectarine Humboldt, 403
Nemesias, a bed of, 131
Nemophila insignis, 367
Nepenthes ventricosa, one of the Pitcher Plants, 647
Nepeta Mussinii, 413
Notospartium Carmichaeliæ, 143, 338
Nymphæas, 267

O.

Oak, old, in Kyre Park, 100
Odontoglossum house at Craighead, Bothwell, 264; Rossianiæ rubens, 239; splendens, 141
Olearia macrodonta, 448
Onions, thinning, 328; transplanting, 205
Orchid, Medusa's Head, 52

P.

Pæony, an old Tree, 400; Tree, 325
Page-Roberts, Rev. F., 498
Pansies, how to increase, 428
Pansy blossoms, removing spent, 317
Parkinson's " Theatrum Botanicum," 288
Paul, Arthur William, 324
Pea Carter's Daisy, 128
Peaches and Nectarines, pruning, 68; packed for market, 427
Pear tree, pruning, 32
Pelargoniums, scented, 112
Pemberton, Rev. J. H., 618
Penstemons, how to propagate, 476
Perennials, how to increase hardy, 588
Pergola, a Rose, after four years, 31
Perry, Mr. Amos, 225
Phlox, Canadian, Perry's variety, 231
Pineapple Smooth Cayenne, 608
Pinks on dry wall, 487
Planting herbs, 256
Plants, raising, 116
Plum Grand Duke, 53
Polyanthuses and Primroses, increasing, 380
Polypodium Schneideri, 17
Potato Snowdrop, a good crop of, 16; Webb's First Crop, 449
Potatoes, diseased, 560; earthing up, 316; Provost and Admiral, 512
Potentilla, how to propagate, 156
Primula obconica gigantea, 200; Unique, 271
Pulmonaria officinalis, 213

R.

Ramondia pyrenaica, 327
Ranunculus Evening Star, 313; Lyallii, 379
Raspberries, pruning and planting, 8
Rock Cress, increasing, 230
Rock garden, a tangled, 201; at an exhibition, 177; at Crowborough, 229; exhibit, 219; in Scotland, 350
Rockery at Bishopstone Rectory, 215
Roof garden, a, 166
Rosa pimpinellifolia, 598
Rose Blush Rambler, 501; Caroline Testout, a bed of, 391; Conrad F. Meyer, 5; Danae, 497; Dorothy Perkins, 54, 500, 561; a weeping tree of, 575; François Fouçard, 167; garden in Chalkwell Park, 484; Innocente Pirola, 499; Juliet, 214; Mrs. David McKee, 115; Mrs. Herbert Stevens, 486; Mrs. James Ferguson, 524; pergola, 390; pergola in the Rev. F. Page-Roberts' garden, 562; some enemies of the, 502; Tea Rambler, 414
Rosemary, a veteran, 621
Roses and Clematis, how to layer, 352; Christmas, and hardy Ferns, 635; how to disbud, 292; how to plant, 540; rambler, 91

S.

Sagittaria japonica flore-pleno, 67
Saintpaulia ionantha, 103
Saxifraga and Schizanthus for house decoration, 290; burseriana, 55; cochlearis, 326; Faldonside, 141; Fortunei at Kew, 622; paradoxa, 463; pyramidalis, 266
School garden, 387
Seed drills, the art of making, 180
Sempervivum Funckii, 90
Shortia uniflora grandiflora, 164
Shrubs, planting evergreen, 564
Snowflake, the Summer, 101
Solanum crispum, 65
Sophro-Cattleya Doris Cobb's variety, 584
Spiræa discolor, 41
Stenanthium robustum, 513
Stock Admiration, 293
Stocks edged with Alyssum, 417
Stokesia cyanea, 550
Strawberry Laxton's Reward, 377
Suburban garden, a, 412
Succulents, a group of, 265
Sweet Pea Etta Dyke, a spray of, 139; Kathleen MacGowan, 76; Mrs. Charles Foster, 77; Mrs. Hugh Dickson, 378; spray, 367; two types of flowers, 82
Sweet Peas, an avenue of, 6; autumn-sown, 78; 11 feet high, 74; growing on fish-netting, 79; planting, 216; raising, 80; Télemly, 252
Synthyris reniformis, 165

T.

Table decorated with Water Lilies and Irises, 512
Thuya gigantea, 65
Todea superba, 227
Town garden border, 366
Tropæolum tuberosum, planting, 193; tubers, 52
Tulipa kaufmanniana aurea, 241
Tulips at " Holland in Ireland," 478

V.

Vegetable Marrows, 280
Vegetables, prize exhibits of, 506, 507
Veitch, Mr. P. C. M., 632
Violas in rock garden, 19
Violets, La France, 181

W.

Wall climbers, how to plant, 612
Wall, dry, in November, 610, 611
Walls, dry, 189
Wistaria multijuga, 551

Y.

Yucca recurvifolia, 18

COLOURED PLATES.

Apple Rev. W. Wilks, 572
Clarkia Firefly, 451
Dahlia Orange Fire King, 274
Dahlias, single-flowered, 427
Damson Merryweather, 527
Delphiniums, 351
Eschscholtzia Mikado, 622
Gerberas, new hybrid, 31
Narcissi, four new, 402
Narcissi, some new, 474
Narcissi, three new, 379
Pansies, Violetta, 303
Pentstemon Myddleton Gem, 55
Polyanthuses, 5
Primula obconica, 179
Rose Juliet, 500
Rose Mrs. Edward J. Holland, 551
Rose Jessie, 155
Sweet Pea Paradise Apple Blossom, 597
Sweet Peas, 327
Sweet Peas, three new, 103
Sweet Peas, three popular, 227
Sweet Peas, some of the newer, 78
Rhododendron Dr. Stocker, 203
Violet Devoniana, 255

THE GARDEN.

No. 1989.—Vol. LXXIV. January 1, 1910.

CONTENTS.

Planting Fruit 1
Notes of the Week .. 2
Correspondence 2
Gardening of the Week
For the South and South Midlands .. 3
For the North and North Midlands .. 3
Fruit Garden
How to grow fine Grapes in ordinary garden soil 4
Apple Charles Ross .. 4
How to grow early Melons 4
Kitchen Garden
The newer Kales for winter and spring use 4
Rose Garden
Popular market Roses 5
Rose Conrad F. Meyer 5
Coloured Plate
Polyanthuses 5
Flower Garden
Sweet Pea chat 6
A Sweet Pea avenue .. 6
Greenhouse
Notes on Orchids .. 6
Greenhouse
Calceolaria integrifolia 6
Trees and Shrubs
How to protect tender shrubs and plants from frost 7
A hedge of Lilac .. 7
Yew, Holly and Beech hedges 7
Daphne Mezereum and its culture .. 7
Gardening for Beginners
Garden work week by week 8
Pruning and planting Raspberries 8
The best way to dispose of garden rubbish 9
The Town Garden .. 9
Books 10
Legal Points 10
Answers to Correspondents
Flower garden 10
Trees and shrubs .. 11
Greenhouse 11
Rose garden 11
Kitchen garden 12
Fruit garden 12

ILLUSTRATIONS.

Prize Grapes grown in ordinary garden soil 4
Rose Conrad F. Meyer 5
Polyanthuses .. .. Coloured plate
An avenue of Sweet Peas 6
Lilac grown to form a hedge 7
Pruning and planting Raspberries 8, 9

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

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PLANTING FRUIT.

Selection of Kinds.

ALTHOUGH it is usually said that the planting of all kinds of hardy fruits may be successfully accomplished from the middle of October until the end of the following March, and even in May if it comes to the push, the grower who spares no efforts to finish all the work before Christmas is wise. Up to the last week of November, at any rate, the soil still retains a certain amount of warmth from the summer and autumn sun, and this of itself is a material advantage, since it encourages the roots to secure a start, and thus the tree will become established quicker and make far better progress in the following spring. Again, autumn planting is advantageous, because we almost always get the worst weather in the early months of the year, and trees not in position when the commencement of January arrives may have to remain heeled in for some considerable time before the conditions are suitable for planting. In all gardens I would urge that the operation shall be pushed forward with the utmost speed, as I am convinced that this will tend to the benefit of the trees and also, as a natural consequence, of the planters.

Acting under the instructions of the Editor, I am about to compile, for the assistance of those readers of The Garden who require help in this direction, lists of varieties of the most important hardy fruits, and it may be well to preface them by the remark that the selections are made of those which are known to succeed in practically all gardens and that can be readily procured from any of the leading fruit nurserymen who advertise trees in these pages. No attempt will be made to push forward the newer and more expensive sorts, which have not yet had time to prove their capabilities in many gardens and different soils.

It is assumed that proper care and attention have been devoted to the preparation of the soil, and that nothing remains to be done except the actual planting. In all instances, the most suitable soil is a sound loam; but that for stone fruits, including, of course, Cherries, Damsons and Plums, must contain a fair percentage of lime; while for Black Currants one would, if one were able to do so, give the preference to a rather stronger soil than for their Red and White relatives, or for Gooseberries. Provided, however, that the soil is thoroughly cultivated and the trees receive correct management at all periods of the year, one need not worry one's self greatly as to the precise constituents of the land at command.

There is just one point which may well be particularly emphasised, and it is that after the formation of the places in which the trees are to go it is essential that a little fresh soil shall be put in so that the lower roots may not come in contact with the inferior soil in the lower level. As it is always possible to plant the small fruits earlier than the larger ones, these will have attention first; it is wise to get them in quickly so that full power can be put on the Apples and Pears when they come along.

Raspberries.—This is a fruit that invariably meets with full appreciation, and it might certainly be more extensively planted by amateurs; further than this, it ought to be grown as though it were a plant of value, and not neglected until the plantations become like thickets, as is occasionally seen. No attempt should be made to secure a crop in the season after planting, as this will so weaken the plants that they will not thrive for some time subsequently; far better cut them down to within 6 inches or 8 inches of the surface so as to allow abundance of time for perfect establishment during the first year. In succeeding seasons they will yield heavily and regularly, provided that they are carefully cultivated and the weather does not prove absolutely unfavourable to fruiting. The finest variety for general purposes is Superlative, but if two or three are desired, Norwich Wonder and Baumforth's Seedling might be added. Leaf-mould is excellent for incorporation in the soil in which it is intended to plant Raspberries.

Currants.—During the past few years Black Currants have fallen upon evil days, and there are now many amateurs who hesitate to plant them for fear that the plants will fall a prey to the dreaded mite and be ruined. This, however, should not be the case, for although there may, and probably will, be losses, the bushes will bear some crops, and it is not easy to secure an over-abundant supply of this invaluable fruit. The finest variety at the present time is, no doubt, Boskoop Giant, but it will receive the attentions of the big-bud mite as well as others if the enemy is in the neighbourhood. Two others of splendid quality are Lee's Prolific and Baldwin's. Three satisfactory Reds are Red Dutch, Raby Castle or Victoria and La Versaillaise. Of these, the second-named will hang very late if the plants are trained in cordon form on a north wall. As a White, one might well give the preference to the old White Dutch, but there is a form of it with much cut leaves which bears more heavily and produces finer fruits. The Red and White varieties are suitable for single stem or cordon training, but not the Blacks.

Gooseberries.—Grown either in the form of bushes or single or many-stemmed cordons, these are among the most useful fruits of our gardens, and are always worthy of the most intelligent culture. Six excellent varieties for culinary purposes are Crown Bob, which must have a deep and thoroughly good soil if it is to show its full qualities; Keepsake, Lancashire Lad, Whitesmith, Whinham's Industry and Warrington—the last-named will hang very late on a north wall or in a cool position provided, of course, that the fruits are protected from the birds. Crown Bob, Warrington and Whitesmith are of fine flavour when ripe and may be used for dessert. For the latter purpose, however, Early Sulphur, Red Champagne, Snowdrop, Langley Beauty, Langley Gage and Golden Gem are much to be preferred. In all instances it is wise to take half the crop green for use and leave the remainder to finish.

Cherries.—Those amateurs who have a rooted objection to birds securing more than their fair share of the fruit grown in the garden will probably decide to forego the pleasure of growing their own Cherries; but the inclusion in the general collection of one or two trees each of Early Rivers', Black Eagle and Bigarreau Napoleon will make most welcome additions to the dessert if the birds are prevented from taking all the fruits. For cooking the Morello is the most generally satisfactory; it should be grown on walls and trained in the same manner as Peaches. If a form of Morello is required for culture as a bush, then the Wyedale ought to be chosen, but it is not quite so good.

Plums and Damsons.—One might very easily make a wide selection of Plums, but I shall assume that four varieties will suffice in the culinary section and three in the dessert, leaving those who require a greater number to write specially to the Editor for further selections. For cooking, then, choose Early Prolific, or, in districts where it is known that this variety does not succeed, Czar, Victoria (the finest general purpose Plum in cultivation), Pond's Seedling and Monarch. Excellent dessert varieties are Rivers's Early Transparent (it is important to get Rivers's as there are inferior forms), Jefferson and Coe's Golden Drop. The last-named is one of the most delicious of all fruits when it is allowed to hang late on the tree and has become a little wizened in the store. As a Damson, Bradley's King is very fine, but the Prune Damson is also well worth a place if two sorts are wanted.

Apples.—We now come to the most important of all hardy fruits, and it may be well to say that wider selections will readily be given if they are asked for; and further, that those named are not necessarily the only ones that are worth growing in gardens; on the contrary, any grower could make up an equally satisfactory list. Taking the cooking varieties first, we might have for culture as bushes or half-standards Lord Grosvenor, Stirling Castle (this must not be allowed to stunt itself by excessive crops in the early stages), New Hawthornden, Hormead Pearmain, Lane's Prince Albert and Newton Wonder. For standards, Ecklinville, Grenadier, Warner's King, Lord Derby (in the South, but not so good in the North), New Northern Greening, Bramley's Seedling and Newton Wonder. Wellington is, of course, a grand Apple, but it is extremely prone to canker in practically all soils. For dessert, as bushes or half-standards, there are Beauty of Bath, James Grieve, King of the Pippins, Cox's Orange Pippin, Cockle's Pippin and Court Pendu Plat; while as standards one can recommend Devonshire Quarrenden, Worcester Pearmain, Cox's Pomona, King of the Pippins, Cox's Orange Pippin and Gascoyne's Scarlet Seedling. Allington Pippin is well entitled to a place, especially where Cox's Orange does not thrive, and those who do not fear the canker will undoubtedly find a place for the old Ribston, which is of excellent flavour.

Pears.—As culinary varieties have had the preference in other kinds, we may retain the order. As a rule, only one stewing Pear is necessary, and this should be Catillac. Dessert varieties are, however, more difficult to choose, for there are many of superlative merit. For bushes have Williams's Bon Chrétien, Louise Bonne of Jersey, Pitmaston Duchess, Comte de Lamy, Emile d'Heyst and Josephine de Malines. Neither Williams's nor Pitmaston Duchess is of the finest quality, but one scarcely feels justified in omitting them. For culture as trained trees on walls there are Beurré Superfin, Doyenne du Comice, Marie Louise, President Barabé, Le Lectier and Marie Benoist. A variety of superb flavour is Thompson's, but the tree is not the best of growers and the fruits are decidedly ugly in shape. Excellent varieties for standards are Jargonelle, Williams's Bon Chrétien, Beurré d'Amanlis, Pitmaston Duchess and Emile d'Heyst.

FRUIT-GROWER.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 11.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1—5 p.m.

"The Garden" Calendar for 1910. With this issue we are presenting our usual calendar, which we hope will be useful to gardeners and others who exhibit at the leading shows, the dates of which, as far as possible, are given. We take this opportunity of thanking all those who have kindly forwarded the dates of the shows for this purpose. Since the calendar went to press we have received dates of several other shows which, of course, could not be included.

Societe Francaise d'Horticulture de Londres.—We are informed that the annual dinner of this society will take place at the Café Royal, 68, Regent Street, on January 29, and that on this, the twenty-first anniversary, the chair will be occupied by M. Philippe de Vilmorin. Full information respecting the said banquet may be obtained from the president of the society, Mr. George Schneider, 17, Ifield Road, Fulham Road, S.W.

Glasgow Seed and Nursery Trade Association.—The annual dinner of this association was held in Fergusson and Forrester's, Glasgow, on the evening of December 18. There was a large attendance, presided over by Mr. Alexander Cross of Knockdon. After the usual loyal toasts, that of "The Glasgow Corporation" was proposed by ex-Deacon Convener Macdonald, and was coupled with the name of Mr. James Whitton, Superintendent of Parks, who briefly replied. The toast of the evening, that of "The Seed and Nursery Trade," was proposed by Sir J. Ure Primrose, who gave a capital speech, in the course of which he referred to the enterprise of the trade. The chairman replied. The remainder of the evening was happily spent with toast and song.

Presentation to Mr. T. Swift.—Mr. Thomas Swift, the head book-keeper to Messrs. Hurst and Son, 152, Houndsditch, is retiring at the end of this year, after upwards of forty years' service. On the 17th ult., at the office, the members of the staff and two gentlemen, Messrs. J. S. Johnson and D. Fairley, who were connected with the firm for many years, presented him with a silver centre-piece and two silver vases as a mark of their esteem and goodwill. In the evening some members of the staff, numbering twenty-two, entertained him to dinner at the London Tavern, Fenchurch Street. An excellent repast was provided, and afterwards a capital programme of music was contributed almost entirely by members of the staff, including Messrs. V. F. Cummings, J. E. Dixon and F. Wheeler, and a feature of the evening was a selection from Dickens's "Christmas Carol," splendidly recited by Mr. R. C. Tucker, an old member of the staff. The dinner was presided over by Mr. T. N. Cox, who was supported by Messrs. William and Edward Sherwood.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Witsenia corymbosa.—This beautiful South African Irid, which was the subject of a recent note in THE GARDEN, used, as stated by your correspondent, to be fairly common in greenhouses when hard-wooded plants were popular. Bearing on this, I recently came across a note in "The Floricultural Cabinet" for 1845, in which—speaking of the exhibition of the South London Floricultural Society, held in the Surrey Zoological Gardens on September 17—mention is made of a specimen of Witsenia corymbosa, shown by Mr. J. Bruce of Merton, bearing a multitude of its azure-coloured flowers, the specimen being 3 feet high and 3 feet across. At the same show Lisianthus russellianus is referred to in the following terms: "A number of fine plants of Lissianthus russellianus was exhibited by Mr. James Cuthill of Camberwell, each growing to a height of near 4 feet, and freely adorned with their superb purple blossoms. The branches of the plants, to the number of eight or ten, were spread out to the sides of the pots and trained to sticks placed around the margin, and the luxuriant appearance of all the plants testified to their judicious treatment, for which Mr. Cuthill has become so renowned." When the system of heating then in vogue is taken into consideration, one is forced to the conclusion that in those days cultivators took more pride in the successful culture of difficult subjects than they do now. Flowers to cut from in plenty, preferably large ones, seems to be the principal consideration at the present time. I venture to think that not a single exhibit at the last Temple Show required such unremitting care to bring it to perfection as did these specimens of Lisianthus.—H. P.

Pentstemon Hartwegii.—For many years gardeners throughout the country were given to understand that P. gentianoides was the parent of the many beautiful garden varieties of Pentstemon. In 1838 Lindley published a coloured plate of it in the *Botanical Register* for that year, t. 3, under the name of P. gentianoides, and other plates appeared soon after. There was already a species of Pentstemon named P. gentianoides, so that a new name for the plant became necessary. Hartweg made a collection of plants in Mexico, and among them were specimens of this species, which Bentham named P. Hartwegii in compliment to the collector. In the original or unimproved form it is the most handsome species I have seen, on account of the bright colour of the flowers, their profusion, the robust and freely branching habit of the plant, and to this may be added its hardiness. Under the name of Newbury Gem a plant is now widely distributed in gardens which hardly, if at all, differs from the first coloured illustrations of P. Hartwegii. Those who grow it describe the colour somewhat differently, as brilliant scarlet, glowing scarlet, crimson scarlet, rich crimson, and the *Botanical Magazine*, t. 3661, describes it as dark red-purple. It was originally discovered by the travellers Humboldt and Bonpland on the sloping sides of Toluco, Mexico, at an elevation of 11,500 feet, which accounts for its hardiness in this country. The first specimens grown in Scotland reached a height of 3 feet to 4 feet, and freely branched. The White Newbury Gem and the so-called P. campanulatus albus are merely albinos of P. Hartwegii.

Phlox rœmeriana.—With the exception of P. Drummondii, all the species of Phlox in cultivation are perennials. Annual species of many plants, coming from countries with a slightly warmer climate than ours, are valuable, because we can grow them more or less entirely in the open during the summer season, whereas perennials, including bulbs, coming from such countries often prove troublesome and require protection of some sort or other. P. Drummondii could be grown entirely in the open air, but it is highly popular, and for that reason is very often started in heat and later on transferred to a cold frame like Stocks and China Asters, in order to hasten growth and give a longer season of flowering. Taking these things into consideration, it is surprising that P. rœmeriana has not been introduced to cultivation, though described as long ago as 1848. It grows on the prairies in light soils in Brown County, West Texas, and forms a graceful plant, 3 inches to 6 inches high when in full bloom. Though dwarf, it branches freely from the base, thus covering a

considerable amount of space. Each ramification ends in one to three or more flowers, 1 inch in diameter and of a lilac purple, while the spathulate or linear leaves are only 1 inch long, indeed, often only half that length. Under cultivation, no doubt, all parts of the plant would be larger, and in the hands of the florist it would probably vary in colour like the other annual Phlox.

The Siberian Crab.—There is a fair wealth of trees and shrubs that would retain their berries through the autumn and winter if it were not for the birds, which are very fond of certain kinds and greedily devour them almost as soon as they are ripe. This applies particularly to the species of Cotoneaster and Barberry, while the fruits of the common Hawthorn, the Fire Thorn and Holly are passed over till the last or till severe weather drives the thrushes to forage for berries of any kind. The Siberian Crab (Pyrus baccata) is very little molested by any of our birds, so that the small Apples usually hang thickly upon the trees, as they do at present, till severe frost softens the fruits, after which they soon become discoloured and drop or get blown down by the wind. At present they are bright red and glossy, closely resembling Cherries, on the leafless trees. This resemblance is due to the calyx falling at an early period of growth, thus leaving the top of the fruit smooth and clean. Of the several synonyms with which the species is encumbered, one is Malus cerasifera, meaning the Cherry-bearing Apple, which would have been a very appropriate name if Linnæus had not previously described it as Pyrus baccata, the berried Pyrus. In April and May the profusion of large white flowers suggest a Pear rather than an Apple, but the red fruits compensate for this when they colour in autumn. They are over three-quarters of an inch in diameter, and, therefore, much larger than the fruits of several of the Japanese Crabs.—J. F.

Sweet Pea fertilisation.—In reading over your report of the papers and following discussion on the subject of waved Sweet Pea fertilisation, at the recent meeting of the National Sweet Pea Society, I do not observe that anyone raised the question as to the connexion, if any, with the waved standard form and the elongated style or pistil of the flower. Is there anything in the formation of the standard that induces this wavy structure and yet at the same time affects the style also? Nothing seems ever to have been shown as to the causes which led to this, one may say, deformed floral formation. Again, has anyone at any stage in the growth of waved forms enveloped a few plants in a covering of muslin, cutting out any rogues the moment they are seen, and then testing the seed the following year to note results? Clearly, in such case, if the product was mixed it could not be the product of insect agency, and, if the muslin was of very fine texture, hardly of pollen wafted on the wind from other varieties. Were in such case the product mixed, would it not be fair to assume that lack of reproductive consistency was due to heredity rather than to some external causes? That Sweet Peas were, prior to the introduction of the Spencer type, so true to character as seedlings naturally leads to the assumption that in creating the waved standard there was a kind of dislocation of the natural form and character of the plant, and that between that dislocation and the lack of consistency there must be some connexion. I shall be told that some—a few, at least—of the named Spencers now come true. I would like to have absolute assurance of that. But if such be the case, is the waved form in the flowers of those varieties less marked than is the case with the flowers of those which habitually come untrue? It is odd that no such irregularity affects edible Peas as a rule. A few may produce rogues until by careful selection absolutely fixed, but they do not seem to go on producing criminals for ever. A very interesting subject is here suggested.—D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

ANY Grapes that are still hanging should now be cut to allow the Vines to be pruned, also to give them a rest. Cut the bunches with sufficient wood for bottling and place them in an airy fruit-room. When pruned, rub off any loose bark that may be easily removed by the hand and give the rods a thorough washing with a fairly strong solution of Gishurst Compound. Well wash the house with a soft soap emulsion. All ironwork and wires should be painted with neat petroleum and the walls whitewashed. When all cleansing operations are completed, remove the top of the border to the uppermost roots and give a top-dressing of good loam that has had a liberal quantity of bone-meal or fertiliser mixed with it. Should the roots be all inside, the border must have a thorough watering.

Pot Vines.—Where these are grown they should be started at once. Plunge the pots in heating material of a temperature of 65° to 70°, and bend the rods round to induce the buds to break more regularly. A night atmospheric temperature of 50° is quite sufficient to commence with, and keep the Vines syringed on bright days.

Plants Under Glass.

Perpetual-flowering Carnations.—These will now be flowering freely, and careful attention must be given in the way of watering and airing. A batch of cuttings should be got in, using short, sturdy side shoots, obtained by pulling them off the stems. A very simple and easy plan for rooting these is to insert them in a 3-inch pot filled with clean sand and place them in a propagating or Cucumber house.

Primulas.—Careful watering is necessary to grow Primulas successfully, giving them plenty of air on bright days; a buoyant atmosphere suits them best. The stellata varieties are very useful for conservatory decoration, also P. kewensis is a good plant for winter flowering.

Hardy Fruit Garden.

Pruning.—With the exception of Peaches and Nectarines, all pruning should be pushed on. In cases of old wall trees, where the spurs have been allowed to get crowded, it is best to reduce them considerably, cutting them off close to the main branches. Thin out the middles of orchard standards to allow free access of sun and air. Morello Cherries that had their summer pruning properly attended to will only require to have some of the old wood cut out to make room for the young fruiting wood. All fruit trees should have a thorough washing of some good insecticide. A knapsack sprayer is very useful for this work, and where trees are infested with American blight, soluble alkali is very effective.

Kitchen Garden.

The work in this department depends a great deal on the weather. During frosty spells manure can be wheeled on the ground, and when the weather is open digging and trenching must be proceeded with. All newly turned ground should be left lying rough, to allow the air and frost to penetrate it. A sowing of Peas may be made in light soils on warm borders, choosing the first opportunity when the ground is in working condition. Sutton's Little Marvel and Chelsea Gem are two excellent varieties for early use. Give a coating of red lead before sowing, to protect the seed from mice. Seed Potatoes that are required for frame planting should be set up in boxes to sprout, keeping them near the light to induce sturdy growth.

E. C. Pooley.
(Head-gardener to C. Bowes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Indoor Garden.

Tomatoes.—Now is a good time for sowing the main crop of this valuable vegetable, as plants raised thus early will give ripe fruits by the end of May, and with skilful handling will continue to give a steady supply until well into October. Of course, it must be made plain that it is only where a suitable temperature can be relied on that early sowing is recommended. A steady temperature of 60° to 65° is essential, for the Tomato in its earlier stages quickly resents cold. Sow thinly in pans of light soil, plunge in gentle bottom-heat, and in a few days germination will take place. As soon as through the soil, remove to a shelf close to the glass, and see that the soil is never allowed to become dry.

Chrysanthemum Cuttings.—The bulk of the cuttings that are to produce plants for large blooms will by now have been secured, although a few varieties are best if propagated during January or February. For instance, Mrs. A. T. Miller and Mrs. E. Beckett always give the finest blooms on the early crown buds, and if these varieties are rooted too early the first buds are produced much too soon, and must be rubbed out, or else the bloom expands long before it is wanted.

The Vineries.—Houses that were started in November or December should now have a little more warmth, but too high a temperature is to be avoided. Other houses that are to be started now must be kept close, and a little warmth given in the pipes, which can gradually be increased as outside conditions improve. The later houses must now be pruned and thoroughly cleaned. It is very bad practice to prune Vines just before starting them into growth, as I have seen some growers do. Bleeding is almost certain under these conditions, whereas if the pruning is done as soon as the wood has become thoroughly ripe, the wounds get perfectly healed before the sap rises. After cleaning a vinery the borders should have a top-dressing of fresh loam and some good artificial stimulant. First remove a few inches of the exhausted surface soil, taking care not to damage the roots. The new soil should be beaten down with the back of a fork, and if poor, a mulching of old rich manure spread over it.

Cold Frames.

Bulbs.—Remove these as required to keep up supplies, and always give all the light possible to those left in the frames. Give air also on all favourable occasions, but mat securely in frosty weather.

Other Occupants.—Look over stocks of bedding plants at frequent intervals, removing dead leaves and weeds. Mice often attack Carnations, Violas and other plants at this season; so a careful look-out should be kept for these little pests. Slugs, too, are often troublesome, and must be hunted for at night and destroyed.

Kitchen Garden.

Digging.—With the very inclement weather most of us have experienced, work is very much in arrears; therefore no favourable opportunity must be lost to get this important work pushed forward. If the manure was wheeled on during the hard frost, the digging will be got through much more rapidly. Be sure to leave the surface as rough as possible.

Trenching.—In numbers of gardens there is but little time in which to thoroughly trench the soil as it ought to be done. It is best to try and trench part of the garden every season. Double digging or bastard trenching is a very good substitute and, in many soils, is equal to actual trenching. I strongly advise that the plot to be sown with Peas be double dug or trenched, as experience has shown me that this will increase the yield by quite 50 per cent., while the quality is very greatly improved also.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE FRUIT GARDEN.

HOW TO GROW FINE GRAPES IN ORDINARY GARDEN SOIL.

I WOULD like to say at once that I should not prefer to plant Vines in ordinary garden soil if I had the opportunity of using good fibrous loam. In many instances, however, amateurs in towns are unable to procure nice fibrous loam, except at a price which is quite prohibitive. Let me say further, that those persons so situated as to be able to command an unlimited supply of the best fibrous turf without going to any expense beyond that of the necessary labour entailed in cutting it should make very good use of such a valuable aid to the successful cultivation of flowers, fruits and vegetables.

Notwithstanding the fact that thousands of amateurs are not in a position to obtain suitable loam for growing Vines in, they must not be disheartened, but make an attempt to grow them in ordinary garden soil, as the writer has done, the accompanying illustration of the bunches of Grapes obtained proving how successfully the Vines may be thus grown if proper cultural attention is bestowed on them. The bunches are prize ones, cut from Vines planted in light sandy and gravelly soil. No attempt has been made to grow the Vines specially for the purpose of producing exhibition Grapes, as each rod, the third year of cropping, bore about 15lb. weight of Grapes. They have been cropped according to their strength. The wood is strong and well matured, the young leading rods being as thick as the average forefinger and bearing five or six eyes or buds per foot run of rod, which fact proves that the wood has been produced under good cultural treatment.

There are twelve Vines in one span-roofed house, namely, three Alicante, three Black Hamburgh, two Muscat of Alexandria, two Gros Maroc and one each of Lady Downe's and Madresfield Court. All the varieties are as satisfactory as these shown in the illustration, with the exception of Muscat of Alexandria, which did not set well enough to please me nor did it colour well; but the week that the Vines were in flower there was no sunshine, and a Peach tree blocked out the light and so interfered with the colouring. I have planted sixteen Vines in another house, namely, six of Black Hamburgh, eight of Alicante and two of Muscat of Alexandria, and these Vines are promising well. The first year after planting I do not allow the Vines to bear, and the second year they are cropped according to their strength and fed moderately. All the Vines are planted inside the houses, and the roots can ramble at will in the outside borders. In order to build up the Vines I do not hesitate to prune the young rods hard back each year. Furthermore, plenty of air is admitted whenever the weather is fine.

The bunches shown in the illustration are nearly of the same size and shape, but one shoulder of the bunch on the right does not show. The berries also are of the same size and bear a dense blue-black bloom. The stand on which the bunches are placed measures nearly 2 feet 6 inches in length.

Bournemouth. GEORGE GARNER.

[We had the pleasure of seeing these Grapes growing in September, and were surprised at such results being obtained from Vines planted in ordinary garden soil of medium quality only.—ED.]

PRIZE GRAPES GROWN IN ORDINARY GARDEN SOIL.

APPLE CHARLES ROSS.

INTENDING planters should make a note of this variety. When first sent out the fruit was considered too large for dessert by some growers. I find as the tree gets older the fruit does not develop to such a large size as it does on quite young trees. It is a splendid cropper both on the espalier and in bush form, and the fruit colours well on either. I have not tried it as a standard. It is a much better grower with me than Cox's Orange Pippin, one of its parents, and the flavour is almost as good. It is in season just before Cox's Orange Pippin.

Sopley Park, Christchurch. J. MURRAY.

HOW TO GROW EARLY MELONS.

To have ripe fruit at the beginning of May, seeds of a reliable sort should be sown at once. Fill 3-inch pots with loamy soil, which should be warm, with a little finely broken mortar rubble mixed. Sow two seeds in each pot, so as to be on the safe side in case one fails to germinate, eventually removing the weaker one. Plunge the pots in a bottom-heat of 80° till the seedlings are well through, then place them on a shelf near the glass to encourage a sturdy growth. Some people prefer fruiting their earliest Melons in pots, but we find the ordinary bed most satisfactory. As the earliest crops benefit by a hot-bed, the material should be prepared at once of well-fermented leaves and stable litter in equal parts. In forming the bed the fermenting material should be raised, so as to allow for a bed of soil 18 inches wide by 9 inches deep, the latter being brought within a few inches of the trellis. It is important to make the soil firm; a loose-rooting medium is conducive to soft, pithy growth, which is very liable to canker.

THE KITCHEN GARDEN.

THE NEWER KALES FOR WINTER AND SPRING USE.

FROM October to May the Kales or Borecoles are an important crop, and the additions of late years have made the task of securing a good supply an easy one. We now have some very fine Kales, and I will enumerate a few of the best.

Hybrid Hearting Kale.—This is an entirely new form of branching Kale, and a most valuable addition to the winter vegetables. The plants are large and produce a great number of shoots, and after severe weather are most valuable, as the shoots are delicate and produced in abundance. This form differs from the older Scotch forms or Green Curled, and in appearance somewhat resembles Couve Tronchuda, having a prominent midrib, but this, though larger, is of excellent quality.

Arctic Curled Kale.—These I referred to a season or two back, and even now they are not grown nearly so much as they deserve. They are most valuable for amateurs or those who have none too much space, as they are very dwarf and produce large masses of curled green leaves of splendid flavour. Like all the Borecoles, to get them at their best they should be boiled slowly and with plenty of water, so that they are not at all crowded. These are in season from December to April, and grown on a north border I have had them well into May, planting the previous July.

Sutton's A1 Kale.—This Kale is similar to the Scotch, and, like the last-named, the leaves are densely curled; but the growth is different, and in this respect somewhat resembles Brussels Sprouts, having a strong stem with closely packed small shoots emanating from it and a large head at the top. It is very hardy, and I do not know of any winter vegetable that surpasses it in quality.

Kale Favourite.—This Kale closely resembles the Asparagus, and is much liked in the northern parts of the kingdom for its hardiness. The plant, when well grown, produces an enormous quantity of sprouts, which are somewhat like Asparagus when cooked and are later than the ordinary Kales. Last season, after a severe winter, this variety was one of our best spring vegetables, and it yielded a great quantity of material.

Drumhead Kale.—A distinct type of vegetable, and very hardy indeed. I think this an excellent introduction where variety in vegetables is valued, and there is a great gain in having variety at this season. This Kale in growth closely resembles a Drumhead Cabbage, hence its name; but this only concerns its shape, as the leaf is large, having a broad midrib, which can be cooked separately. The heads cooked whole are excellent, and the plant branches freely after they are cut.

New Sprouting Kale.—Here we have a distinct type of Kale, in some particulars resembling the older Scotch form, but with a denser growth and more productive in the way of side growths. It is not at all coarse, as when well grown the plants only reach 15 inches to 18 inches in height, but are broad and dense, therefore requiring ample room. It is very hardy, and I have never seen it injured by severe frost. It remains good a long time in the spring before it attempts to run to seed. When cooked the flavour is excellent.

Carter's Drumhead Kale. — This valuable winter vegetable is a recent addition to this class of vegetables, and, unlike the other Borecoles, has a solid head which, when cooked, is equal in quality to an early spring Cabbage. The plant is dwarf and of easy culture, having broad, curled leaves, and every part is usable.

G. WYTHES.

THE ROSE GARDEN.

POPULAR MARKET ROSES.

WE have many Roses which neither the florist nor the public ever tires of that possess the double merit of being popular and profitable. To look at a field of Roses in bloom from July onwards, or to see the beautiful examples of the flowers that are staged at the leading exhibitions, the uninitiated might reasonably conclude that a dozen or score might be taken haphazard from a stand that would serve any purpose for which a Rose might be required. Exactly the opposite, however, is the fact. It may be that the Rose will not force well or that it is wanting in freedom of flowering, it may be thin-petalled or lacking one of the more popular shades of colour, it may be weak in growth or a little worse than something else already on the market; but whatever its defects may be, one thing is certain, viz., that the market florist will quickly find it out and just as promptly discard it, even though the stock may run into hundreds or thousands. At the same time, the market-man is ever sufficiently alert to know a good thing when he sees it, and instances such as these, if not numerous or commonplace, occur from time to time. Those lovely Roses Richmond and Liberty are cases in point, while the flowers are so delightful, both in colour and form, when the plants have been well grown or gently forced that they command general attention. Not, indeed, for many years has there appeared a pair of novelties that so completely captivated the market-men as these, while the subsequent behaviour of the varieties has fully borne out what was expected of them. In short, the best tribute that a market Rose, Carnation, or Chrysanthemum can possibly have is in the fact that it is still grown, and to be this the variety must be in demand. With careful and steady forcing the plants yield beautiful blooms, and the trusses, being freely disbudded, provide flowers fully large enough for any ordinary uses at home. In the early forcing of the Rose it is found that those varieties having long, tapering buds are most quickly responsive, while those with full flowers and where the petals may to some extent overlap do not so quickly answer to the call made upon them. That delightfully fragrant Rose La France, although a popular favourite at one time, has the defect of great fulness, coupled to which are flowers having tightly placed petals that go to make up the somewhat cone-shaped flowers, and which require sunlight to assist them to expand. From the market-grower's point of view and for earliness in particular, La France, when hard forced, produces its flowers upon a very long and weak peduncle or footstalk, and the support necessary to keep the rather heavy flowers erect has a disfiguring effect generally. At the same time, given much time to develop, the variety will appear in a greatly improved condition in several ways, and when well grown it commands attention.

The large, if scentless, white-flowered Frau Karl Druschki is another that requires much time to develop its fulness. A type of flower valuable alike for its clear pink colour, fragrance, form, firm, long, strong and leafy stems, is the well-known Mrs. John Laing, and when to the foregoing good qualities is added its great charm when seen under artificial light, there is no need to ask questions concerning its popularity. Its best flowers, however, are not obtained, as many suppose, from maiden plants, but from older examples, and not infrequently from such as are planted out in beds under glass. If pot-grown the variety should be treated most liberally, not gorged with organic manures or poisoned by strong overdoses of chemical manures, but regarded rationally and accorded the requisite assistance to perform its functions in due course. Liberal pot-room with firm potting are most essential, not only to this, but to all classes of Roses grown in pots. Loose potting, careless watering and overdoses of manure, with much heat, are among the chief items that bring failures where successes only should be found. All early forced Roses are very tender and highly susceptible to the changes of the weather, though, perhaps, this applies most of all to the Teas and the red-flowered class, of which Captain Hayward and General Jacqueminot may be taken as the long-stemmed and popular button-hole varieties respectively. Mme. Abel Chatenay still holds a high place, though the newer Joseph Lowe, a shapely pale pink sport from Mrs. W. J. Grant, is making great headway, and by some is expected to displace the older variety. In my opinion there is room for both. It is worth recalling, however, that, at the recent autumn Rose show of the National Rose Society, Joseph Lowe, in a superb table arrangement, took first place, though it must be recorded, in justice to the other variety, that the blooms were by no means the finest coloured I have seen. As I have said, there is room for both, but the two should not appear in any one arrangement. Such indispensable and popular sorts as Niphetos, Perle des Jardins, Bridesmaid, The Bride and others are still with us, and likely to remain so, not because of any shortage of novelties, but because the latter, delightful as they are on the exhibition board or in the garden, fall short, in some way or another, of those attributes which go to make a popular and profitable market Rose.

E. H. JENKINS.

ROSE CONRAD F. MEYER IN THE REV. F. PAGE-ROBERTS'S GARDEN.

ROSE CONRAD F. MEYER.

THIS is one of the most beautiful of Roses, the first almost to greet the early summer. The flowers are large, very sweetly scented, and soft rose in colour. A correspondent writing about it recently says: "The great silvery rose, sweetly scented flowers are produced in wonderful profusion. This Rose can be trained on a pillar or over an arch, but is seen at its best when allowed to form a free bush. If planted as a hedge it must be given plenty of room; to try and keep it within bounds by interfering with its great prickly shoots would take away half its charm. A few old growths should be removed each year; beyond this little pruning is necessary." The plant represented is in the garden of the Rev. F. Page-Roberts, rector of Stratfieldsaye, and the photograph was taken by Miss Dorothy Page-Roberts.

COLOURED PLATE.

PLATE 1390.

POLYANTHUSES.

THE origin of the garden Polyanthus is somewhat uncertain, some authorities claiming that it is a form of Primrose, others that it has been evolved from the Oxlip. Judging from the erect "pips" and strong stems of a really good strain, one would be inclined to favour the latter view, even if there were not the evidence of the sharply toothed calyx, which is distinctly a characteristic of the true Oxlip rather than of the Primrose. Whatever their origin may be, however, we can all agree as to the beauty and value of these delightfully fresh spring flowers.

There are few flowers of which we have not improved forms largely due to the endeavours of Messrs. Sutton, and the Polyanthus family is one that has been most successfully taken in hand by the Reading firm. In the coloured plate we show one of their fine strains being grown for seed. The plants display great vigour and a wealth of flowers, hardly two plants being identical in colouring. Coming into bloom so early in the year, Polyanthuses are all the more welcome, and in an extensive garden one can hardly have too many of them. They are charming for shaded walks and the wild garden, as well as for the more usual planting of beds and formal edgings. Even in the smallest garden there are sure to be some shaded spots in which Polyanthuses would thrive.

The seed is usually sown too late. April and May are none too early to ensure good strong plants for putting into their flowering quarters in the autumn. By such a sowing sometimes a whole season is gained, and a little attention in watering and stirring of the ground in the early stages of growth is more than repaid by the larger trusses of flowers the first spring. The plants are liable to deteriorate the third year, and it is well, therefore, always to have some seedlings, which give much finer and more numerous flowers than old divided plants.

THE FLOWER GARDEN.

SWEET PEA CHAT.

THE PAST YEAR.—I wonder whether the year 1909 brought complete satisfaction to any single individual who swears allegiance to the queen of annuals? It is more than doubtful, for a more generally wretched year could scarcely be imagined. From the time that the seeds were sown in the spring until the frosts came in the autumn there was something wrong, and only those who find their keenest enjoyment in grumbling were genuinely happy. However, the season of flowering brought its compensations, for many rows and clumps were really superb, and continued to blossom for an exceptionally long period. Some of the most favoured varieties failed to live up to their reputations owing to the almost persistent wet, but with better climatic conditions during the present year they may possibly regain them.

THE OPENING YEAR.—We are on the threshold of another year, and the opportunity may be taken of wishing all Sweet Pea lovers all the good that they wish themselves. Doubtless many mistakes were made last season, and the wise ones who were industrious enough to make careful note of their errors will find it easy to avoid them in their future operations. I have heard murmurs against the plant because disease has appeared in a few places, and there are those who have expressed their firm determination not to grow Sweet Peas again; but they will never live up to such a New Year's resolution for more than one year (if they manage that), for the very simple reason that they cannot find another plant to take its place. This annual is unique; there is no other plant which even remotely resembles it, and indisputably there is no other that will bring such generous returns for the outlay in labour and money. There is a general consensus of opinion in the minds of those who are most competent to judge that the Sweet Pea is not yet on the flood-tide of popularity and prosperity, but that it will continue to increase in universal esteem for many years to come. Let us all hope that this will be so.

THE NATIONAL SOCIETY.—Although it is barely ten years since this society was instituted, it has grown so vigorously that it is now practically 1,000 strong and has no fewer than 100 societies in affiliation. This success can only be explained by the fact that its officers and committees have ever kept steadfastly in front of them their duty—the popularisation of the flower by every legitimate means within their power. The society's publications have always been of real value as well as of interest, and its exhibitions have been splendid examples of what such gatherings should be. All lovers of the flower who are not yet members of the National Sweet Pea Society should join at once.

ORDERING SEEDS.—The weather in the autumn was so extremely unfavourable for all cultural operations that many of the most ardent advocates of sowing at that season of the year failed to do so, and also deferred the ordering of their seeds. The crops of the majority of the choicer varieties were so poor that everyone was recommended to purchase early in the autumn, or at least to place their orders so that the sorts they particularly wished should be kept for them. It is, however, practically certain that far fewer seeds were distributed or ordered last autumn than was the case in the preceding season, and the natural result of this is that all the leading specialists still hold fairly good stocks of most varieties, though some of the very scarcest are almost completely sold out. Sowing will be general from the end of the present month onwards, and purchasers are strongly advised to place their orders at the earliest possible moment so as to ensure prompt delivery. It must be borne in mind by those who place Sweet Peas first in importance that most seed merchants deal also in general flower and vegetable seeds; that the orders for these come in by the thousand in January and February; that they are executed in the order in which they are received; and as most seedsmen manage to get two or three weeks behind the orders, it follows that one may have to wait some time before receiving one's seeds. This always causes a feeling of irritation and may prejudice the prospects of success, and for these reasons buyers are urged to send off their orders forthwith.

SPENCER.

AN AVENUE OF SWEET PEAS IN MR. E. TESCHEMACHER'S GARDEN.

A SWEET PEA AVENUE.

SWEET PEAS look very pretty when grown on either side of a walk. The accompanying illustration shows the end of a Sweet Pea avenue, the plants being over 10 feet high. From these rows a bunch of 2,000 blooms was gathered one day early in August. Needless to say, the ground was very deeply dug before sowing, but no water was given to the plants

E. TESCHEMACHER.

THE GREENHOUSE.

NOTES ON ORCHIDS.

ZYGOPETALUM MACKAYI.

ZYGOPETALUM is a genus which contains several examples of handsome and free-growing Orchids, but the one quoted above stands out above all others, whether we look upon it from the decorative standpoint, its vigorous growth or its free-flowering qualities. The pseudo-bulbs are round or ovoid, and the arching leaves are from 1 foot to 2 feet long, while the strong, erect flower-spikes usually attain a height of 30 inches and stand well above the foliage. Each flower measures about 3 inches from the base of the lip to the top of the uppermost sepal, the former being broad, white, streaked and marked with violet-purple. The petals are light yellowish green and spotted with purple-brown.

It is an autumn and winter flowering plant, and immediately the scapes are removed repotting can be taken in hand. A suitable rooting medium consists of good fibrous loam, one-half, and the remainder made up of fibrous peat or Osmunda fibre, chopped sphagnum moss, partly decayed Oak leaves and broken charcoal in equal proportions.

Ordinary flower-pots are best for all Orchids with fleshy roots, and ought to be quite clean and filled one-fourth of their depth with potsherds for drainage; over this is laid a thin layer of loam, when it is ready to receive the plant. Where the cultural conditions have been correct, very little disturbance at the base will be necessary beyond removing the drainage and any sour soil from the surface. A pot about two sizes larger should be chosen and the soil pressed moderately firm, and when the operation is finished the roots must be half an inch below the rim to allow sufficient space for watering, as Zygopetalum Mackayi enjoys plenty of moisture when in a state of activity. The temperature should fluctuate between 50° Fahr. and 65° Fahr., the former during the winter period and the latter for the summer months. Many growers place the plants in the cool house among the Odontoglossums, and I have seen some good specimens cultivated with the Cattleyas; but in whatever house they are placed, a shady spot is essential throughout the hottest part of the year. When the season's growth is completed, less water is needed, but the roots must not be allowed to become dry so as to cause the pseudo-bulbs to shrivel, or the flowers will suffer later on in consequence.

The new shoots should be examined occasionally for thrips, and if they make their appearance the plants may be dipped in a weak solution of XL All liquid insecticide or the house should be vaporised. Annual repotting is not advisable; in fact, every third year will be ample if these directions are judiciously carried out, and the cultivator will be rewarded with a display of bloom which will remain in full beauty for several weeks if the atmosphere is not excessively charged with moisture.

SENTINEL.

CALCEOLARIA INTEGRIFOLIA.

THIS is a very beautiful and attractive plant which, if given a warm position and a little

protection till established, will stand the winter outdoors in the Southern Counties, for as the wood gets older it becomes hardier. It is not grown as much as it deserves to be, for it is very showy when in flower. In colour the flowers are a rich yellow, and although the individual blooms are not large, the size of the truss makes up for that, and it remains in bloom till late in the autumn. E. C. POOLEY.

Gnaton Gardens, Plymouth.

TREES AND SHRUBS.

HOW TO PROTECT TENDER SHRUBS AND PLANTS FROM FROST.

OWING to the excessive amount of rain and the mildness of the weather experienced in many parts of the country, the growth of many shrubs was very rampant last season. This in some cases may be regarded with satisfaction, but in the case of tender subjects the experienced gardener knows the baneful effects that sharp frost has upon the soft and imperfectly ripened growth. The question then arises: How can these be protected during the winter? I will endeavour to give a few simple hints on methods which have proved successful.

Dealing first with Roses, standards of the tender Tea varieties should have their heads protected by tying them up closely, using soft string for this purpose, and afterwards covering them with neatly plaited straw, tiffany or light canvas. For the smaller heads the straw coverings used on wine bottles may be used, and for larger heads two of the coverings may often be joined together, and thus form a neat and most efficient protection. Bracken is often recommended and may be used in some cases, but it is apt to be blown off during rough winds and should, therefore, be tied in position. Avoid the use of any heavy material, such as old bags, as these become sodden with water, and in this state are most detrimental to the well-being of the tree. Dwarf Roses may be protected by having the soil drawn up around their base. This should be thoroughly done; a mound 1 foot in diameter at the base and 9 inches deep is not too much for a small bush, larger plants requiring more. If there is any danger of exposing the roots when drawing up the soil, this should be avoided by adding fresh material for forming the mounds.

Tender shrubs should have their roots covered with a good layer of leaves or strawy manure, and in open positions wire-netting may be pegged around to prevent this being scattered by wind. In addition to this, light sprays of Spruce or other suitable evergreen should be placed among the branches during a spell of severe frost. Climbers on walls may easily be afforded the necessary shelter by the use of mats. The Coir Wind Screening, which is advertised in THE GARDEN, is excellent for protecting plants on walls, also many subjects in the open ground. On heavy clay soil and in cold districts the roots of many choice herbaceous plants will need a layer of some material as a protection. For covering beds and borders containing herbaceous plants and bulbs, the wild Heather, which can be obtained in quantities in some parts of the country, is excellent, especially after being stacked for twelve months. Specimen plants of Bays, Hydrangeas and other plants in pots or tubs should be placed in a shed or other outhouse, taking advantage of fine mild days to admit air by opening the doors or windows. C. RUSE.

A HEDGE OF LILAC.

LILAC makes a most effective hedge, and should be more often planted for this purpose. Lilac trees flowered splendidly last summer, owing to the sunny autumn we experienced a year ago. The hedge in the accompanying illustration is very carefully attended to. Dead flowers, suckers and useless growths near the base of the trees are removed directly flowering is over, manure being applied during the winter. E. TESCHEMACHER.

YEW, HOLLY AND BEECH HEDGES.

[*In Reply to C. D. Oldham.*]

BEFORE manuring your Yew hedge it will be advisable to make deep holes at intervals 3 feet or 4 feet from the hedge, and ascertain whether the ground is dry or not. Sometimes, when a hedge is planted on a bank such as you describe, the ground becomes very dry at some period, and does not become wet again for a very long time. If you find that it is dry, give it a good watering to thoroughly moisten the ground, previously loosening the surface soil for a distance of 4 feet or 5 feet on each side with a fork. You ought also to cut a deep trench 10 feet or 12 feet away from the hedge and sever any tree roots that are interfering with the hedge. Tree roots and drought are probably the cause of your hedge deteriorating. The basic slag may be applied as you state, but a good surface dressing, 3 feet to 4 feet on each side of the hedge, of well-rotted farmyard manure would be better. Next spring, in showery weather, a light top-dressing of nitrate of soda will also do good, say, 2oz. to the square yard. The top of the hedge may be cut fairly hard to encourage bottom growth. Your Holly hedge may be treated in the same manner. If you cannot obtain the farmyard manure, you may use basic slag and the other manures you suggest. You can convert your mixed hedge into a Holly hedge by removing the Thorns as they can be spared and allowing the Hollies to fill the gaps. The Beech hedge may have a dressing of farmyard manure likewise. The blight you speak of was very bad on Beeches generally last year. When such an attack occurs, the best method of dealing with it is to syringe with a mixture composed of 1lb. of soft soap, six pints of paraffin and sixteen gallons of soft or warm water. The soft soap should be dissolved in a gallon of hot water, after which the paraffin should be added and stirred well in to form a creamy liquid; then add the remainder of the water, mix well together, and apply towards evening when rain is not likely to occur.

DAPHNE MEZEREUM AND ITS CULTURE.

No flowering shrub in our gardens gives one greater pleasure than the Mezereon. We have, indeed, finer shrubs, but when the Mezereon flowers other shrubs are as good as dead, because there are no flowers upon them or even the sign of a coming leaf. To speak of the Mezereon as a spring flower is a mistake. The hedgerows are bare, and the birds for the most part are silent, when the lovely Mezereon is in its full beauty, and most delightful it is to see its branches studded with pink or purplish flowers.

Hardy Daphnes are not numerous, and the best of them are less hardy than they should be for general usefulness. The commonest is the green-flowered D. Laureola, a true native, flowering in February, and a really interesting, though not a showy, plant. All who love their gardens should make a point of having a few plants of this species by them, in case they should at any time be afflicted with a passion for Daphnes in general. It is the species used for grafting the finer sorts upon.

LILAC GROWN TO FORM A HEDGE.

Having indulged at some length in this interesting pastime in my younger days, I can say that to make the stocks and put on the grafts is easy, and the great point is to have nice quarters ready to promote the junctions and the growing. The better Daphnes comprise D. alpina, a pretty shrub for the rockery, with white or rosy flowers; D. collina, a smallish arboretum or rockery shrub, with blush or pink-tinted flowers; and D. Cneorum, a half-trailing shrub, possessing the finest qualities, and much to be desired in every well-kept garden. It is a true evergreen, of neat growth, and produces rosy flowers that are deliciously fragrant early in spring. For the formal grounds this is a foreground gem, perfectly hardy, and if left pretty much to itself will grow and increase with great rapidity. It requires peat to grow in. The Mezereon and Daphne Laureola prefer loam.

Ashwellthorpe, Norwich. T. B. FIELD.

GARDENING FOR BEGINNERS.

RASPBERRIES IN WINTER.

GARDEN WORK WEEK BY WEEK.

THE NEW YEAR.—With the commencement of a new year the true gardener's hopes always begin to brighten, and his thoughts are turned towards the spring, with its array of bright flowers fresh from the soil that was erstwhile frozen hard or covered with snow, that will soon be with us. At this time resolutions are made, perhaps to be broken within a

1.—A WELL-GROWN RASPBERRY PLANT BEFORE PRUNING AND THINNING. THE BRANCHING CANES ARE THOSE WHICH HAVE BORNE FRUIT, AND SHOULD BE REMOVED, TOGETHER WITH ANY WEAK NEW ONES.

short period, and plans are drawn up for the coming campaign in the garden. It is also a good plan to take stock of all garden implements, manures and other sundries, so that a fair start is ensured. Seeds will soon have to be purchased, and already several seedsmen have favoured me with their catalogues, which, judging by a casual glance, are well up to the usual high standard. A word of advice that I would offer to the beginner regarding seeds is this: Do not be tempted to rely on last year's seeds, for therein lies failure and disappointment. There are a few, a very few, kinds that will give good results when two years old; but the majority, even though they germinate, produce seedlings of weak stamina, which are sure to prove unsatisfactory.

Greenhouse and Frames.—As these notes are being penned the delicate fragrance from a pot of Roman Hyacinths is being enjoyed, and other bulbs are pushing their green leaves towards the light. It is well to remember that Hyacinths, Daffodils and Tulips all delight in abundant supplies of moisture, and, providing the drainage of the pots is sound, it is difficult to over-water them when they are in active growth. Those grown in fibre with no drainage must be given water very carefully, as it must be remembered that none can run away, and consequently much harm would be done were a great deal too much given. To keep the fibre moist without being sodden must be the aim with plants grown in this way. As seed-sowing will soon have to be done, it is a good plan to see about mixing some soil for the purpose. A good general mixture may be composed of loam, two parts; sand, one part; and well-decayed leaf-soil, one part. This should first be well mixed and then sifted through a quarter-inch sieve, placing it, if possible, in a warm, dry place ready for use. If it becomes too dry, it is an easy matter to damp and turn the heap before using.

Kitchen Garden.—Generally speaking, there is not much yet to be done in this department beyond digging and trenching—work that must be done whenever the weather will allow. In country districts it is well to keep an eye on young Cabbage plants during severe weather, as several kinds of birds will greedily devour them when there is little else to eat. In such cases they must be protected with netting or black cotton, but on no account should the plants be actually touched while frozen stiff. A sowing of Mustard and Cress may be made in shallow boxes of sandy soil in a warm frame or greenhouse, as it will be most useful at this season. Sow the Cress a few days in advance of the Mustard if both are required for use at the same time, as the latter germinates and grows more quickly than the Cress. It will suffice if the soil is well watered and the seed scattered thickly on the surface, just pressing it into the soil.

Fruit Garden.—Although the planting of all trees would have been better done in November, there are doubtless many yet to be put in, including some against walls. In planting in such a position there are one or two points that should be remembered if success is to be obtained. Many beginners make the mistake of planting the tree so that its stem is close to or even touching the wall, a position that is, to say the least, unfavourable, as the stem will always be pushing tightly against the wall in its endeavours to swell. The main stem ought to be at least 6 inches from the wall at the base, sloping the branches to the wall where they are eventually to be nailed in position. Nailing or tying is another point where beginners frequently go astray. It is quite a natural desire to wish to see the branches neatly tied or nailed in position as soon as the tree is planted, but it is a wish that ought not to be carried into effect. The soil round a newly planted tree always settles down more or less, and if the branches are firmly secured in position the tree cannot sink with the soil, and the roots are consequently brought nearer the surface than is desirable. It is best to loosely secure the branches first, just to prevent them being damaged by wind; and after an interval of two or three weeks they may be properly secured and pruned.

A. A.

PRUNING AND PLANTING RASPBERRIES.

THERE are few hardy fruits more highly esteemed than the Raspberry. Although the fruits are seldom used for dessert, they are much appreciated for culinary purposes, and as the plants are so easily managed, there is no reason, where space and opportunity permit, why a plantation should not be made in the garden of the beginner.

At the present period it is customary to prune and thin out the old canes, so that good fruiting shoots may be developed on those that are retained. Had this pruning been done some time since, it would have been better, but growers often put off this important work till winter.

The beginner at this stage may ask: How am I to prune my Raspberries? We must remember that one of the objects of pruning the canes in good time is to allow light and air free access to the young canes which are to bear fruit in the succeeding year. To prune the Raspberries it is necessary to cut away entirely all canes (growths) that have borne fruit in the past season. The old canes are absolutely useless, and so long as they remain unpruned they are hindering the satisfactory progress of the new ones.

That the beginner may thoroughly understand how to proceed with the pruning, a typical plant of one of the taller-growing varieties of the Raspberry is shown in Fig. 1. This represents the canes that have borne last season's crop of fruit and the new ones that are to provide next season's supplies. In Fig. 2 the same plant with all the useless and superfluous canes pruned or thinned out is shown. A close observation of the two illustrations shows how drastic the change is. It is usual to thin out the weak and superfluous canes of recent development, retaining four to six of the strongest for future work. Some growers are content to retain only three or four of the most promising ones. Tie the selected canes to stakes or trellis inserted or erected for their support, and as a finale just remove the soft tips of the canes. To add to their fruitfulness it is a good plan to apply decayed manure to the plantation at this period, forking this in to a depth of 3 inches only. Do not use the fork too near the plants, or serious damage may ensue.

The making of a new plantation of Raspberries is a piece of work that will be of considerable interest to many readers. It is well, in the first instance, to remember that Raspberries are not very fastidious as to soil; as a matter of fact, they will thrive in any fairly good ground. However, poor soil should have good lasting manure applied in abundance. Raspberries delight in a moist situation, and if

2.—THE SAME PLANT AFTER PRUNING HAS BEEN DONE.

3.—TWO EXAMPLES OF YOUNG RASPBERRY CANES WITH WHICH TO MAKE NEW PLANTATIONS. THAT ON THE LEFT IS A DWARF VARIETY, AND THAT ON THE RIGHT A TALL VARIETY.

the plantation be slightly shaded it will be no disadvantage. When preparing the quarters, deeply dig the soil. I prefer to trench the ground two spits deep, digging in a heavy dressing of manure as the work proceeds. Raspberries are propagated by suckers, *i.e.*, sucker-like growths. Some varieties are much stronger in their growth than others, and for this reason I have portrayed in Fig. 3 examples of both. On the left of the illustration is a young cane of a dwarf-growing variety, and on the right is a good example of a tall-growing variety, which reveals its strong character by the stoutness and length of the young canes. These are sucker growths that pushed their way through the soil at some distance from the old plants. In a plantation of Raspberries many such sucker canes are developed as the plants get established, and these should be removed with care, so that as little injury to them and the old plants shall be done as possible. The latter should be severed at their roots by using a sharp knife, taking good care to preserve the dormant buds, which will be found immediately below the surface. By these means fruit-bearing canes will be ensured during the succeeding season.

Planting may be done at any time between October and March, although the earlier this is done, when the weather is open and the ground free from frost, the better. There are various methods of planting; in rows is, perhaps, the most popular. The rows should be 5 feet apart, and the plants singly 2 feet apart. A trellis should be erected, and the canes secured with care to this. Another method is to plant in groups of three canes each, arranging the groups 3 feet apart, and in rows 5 feet asunder. Stout stakes, three to each group, should be inserted subsequently for the support of the new canes; the latter should be secured to the former.

Immediately after the planting, the young canes should be cut down to within 6 inches of the ground, so that they resemble the appearance of the specimens represented in Fig. 4. On the left dwarf-growing canes are shown, and on the right tall, strong-growing ones. By cutting back the young canes in this way, strong growths are induced to break from the base, and these must be encouraged to grow away freely during the succeeding summer. In the subsequent autumn the weak growths should be cut out and those retained staked and tied; these will provide a good crop of fruit in the following season.

Good varieties of Raspberries are: Red—Superlative, Baumforth's Seedling, Lord Beaconsfield and Prince of Wales; Noire d'Automne, large, almost black; October Yellow, free; and Orange d'Automne, a very large fruit of an orange colour. D. B. C.

THE BEST WAY TO DISPOSE OF GARDEN RUBBISH.

THE burning of garden rubbish is the best plan both for the sake of tidiness and economy, the ashes forming a valuable plant food. The method of digging the rubbish into the ground is not to be recommended unless trenching is being carried out, when the rubbish may be placed in the bottom of the trench. No wood or prunings should be buried, as these are liable to start the growth of an injurious fungus. Finely sifted ashes from the smother fire are used with advantage for covering the seed of Carrots, Onions, and other plants. After sowing the seed cover with a layer of the ashes before filling in the drills with a rake. Dry ashes are best for this purpose, and a quantity should be sifted and placed under cover. Heavy soils which have been dug in the autumn are much improved by the ashes being forked into the surface when preparing them for sowing or planting in spring. For the fruit quarter these ashes may also be used with most beneficial results. In all cases where a fire can be made, burn the rubbish and return the ashes to the soil. C. RUSE.

THE TOWN GARDEN.

CHRISTMAS ROSES.—There is no hardy garden flower at this festive season of the year half so precious as the Christmas Rose, of which the typical form is known botanically as Helleborus niger. In the half-shaded places of the garden the plants, when they have become established, give but little trouble and yield an abundance of their blossoms, when they are without a rival. Perfectly hardy and enduring, lasting when well planted for several years with but little attention, these are surely the plants to be favoured by all town and suburban dwellers, who are unable to indulge in many of the things of which a country garden might boast. It is, however, somewhat late to be planting these with success, and for the time being I will content myself by directing attention to preserving their flowers in those instances where the plants are already in existence. It may not be known to all garden-lovers that there are several distinct forms or varieties of the Christmas Rose, and that by growing a set of these varieties flowers may be had from November to February inclusive. The varieties are known distinctively as Helleborus niger maximus, November flowering; H. n. major, December and early January flowering; and H. n. angustifolius, January and February flowering. Where any or all of these exist at the present time, spare frame-lights or cloches may be placed over the clumps to prevent the flowers being spoiled by rain or bespattered by soil. It is equally important just now to carefully examine the crowns to see if these are free from snails and slugs, which nestle therein and devour the buds.

BORDER CARNATIONS.—There is, so far as I have at present observed, a more than average crop of the Carnation maggot existing, and where the older varieties, such as Gloire de Nancy and Crimson Clove, still remain on the plants where they were layered, the pest has already played havoc with the stock. The presence of the maggot—a small grub of yellowish colour and about a quarter of an inch in length—may be detected by the whitening of the leaf surfaces, the latter presenting a somewhat blistered or scalded appearance, and which is due to the fact that the maggot, on arriving at the active stage of its existence, has made a channel for itself within the cuticle of the leaf, existing meanwhile on the tissue which comes in its way. By plucking off a leaf or two the maggot may often be detected at its work, and is then easily destroyed with finger and thumb. To neglect this operation now and thus allow the pest to obtain an entry into the heart of the plant, which it certainly will do, is to risk its flowering during the coming summer. A sharp needle is an excellent instrument to pick out the maggot, when it should be destroyed.

EARLY FLOWERING CHRYSANTHEMUMS.—Not a few of those who indulge in the cultivation of this most serviceable group of plants lose their stocks entirely through leaving them in the open ground exposed to all the chances and changes of a characteristic English winter. By lifting a few plants and heeling them in at the base of a south or south-west wall, the stools may be preserved for another year.

BULBS IN BEDS.—One of the weak points of the amateur or beginner in gardening is his fear of planting his bulbs sufficiently deep in the soil, in spite of the very clear instructions that may have been tendered from time to time. The direct outcome of very shallow planting is that with root activity the bulbs are lifted out of the soil, which militates considerably against success. Daffodils and Hyacinths more particularly, by reason of their strong-rooting characteristics, are prone to lift themselves to the surface in this way, and where the bulbs have been planted in shallow holes made with a dibbler this lifting is likely to be all the more prevalent. Should it be observed that any bulbs are so exposed, they must be pressed into the soil or be covered with other soil.

BULBS IN WINDOW-BOXES.—The town dweller is often apt to overlook those bulbs he has so carefully planted in his window-boxes during the past weeks, and to quite ignore the fact that but little or no rain can reach them in such positions. Now, bulbs of all kinds, and Daffodils and Hyacinths in particular, are great drinkers, and must, whether grown in pots or window-boxes, be given ample supplies of root moisture. Of this there must be no half measures, as a wet soil is much more to their liking and more conducive to ultimate success than a dry one. ADAM.

4.—HOW YOUNG RASPBERRY CANES SHOULD BE PLANTED AND THEIR TREATMENT AFTER PLANTING. THE NEWLY PLANTED CANES ARE CUT DOWN TO WITHIN A FEW INCHES OF THE GROUND.

BOOKS.

An instructive catalogue.—One of the most interesting and instructive catalogues that have been published of recent years is that recently sent to us by Messrs. Heath and Son of Cheltenham. It is aptly described as "A really reliable complete catalogue of hardy plants for rock gardens and herbaceous borders, containing full details concerning height, time of flowering, colour, origin, and how to grow them; correct nomenclature guaranteed." The catalogue is a model of its kind, and may be thoroughly trusted. It is freely illustrated, and no trouble has been spared to provide a guide of the utmost utility for those who are devoted to the plants of the open air. The nomenclature adopted is that of the revised edition of the "Index Kewensis," and a list is given at the end of "Common and British Names," which should be very helpful. Garland-flower, for instance, is "Daphne Cneorum"; Spiderwort, "Trandescantia," and so forth. The single column form has been adopted, enumerating the species and varieties, with description, height and month of flowering. The following quotation is in reference to the Japanese Iris and indicates the character of the book, for such it really is: "Iris lævigata (syn. Kæmpferi). This most beautiful Japanese race requires rather special treatment, but with a little ingenuity and trouble it should not be difficult to give them the ideal conditions. Their peculiarity is that they like to be dry in winter and wet in summer, and obviously this must be done artificially. In Japan they are grown in the Rice fields, which are heavily manured in winter when dry, and when summer comes the fields are flooded by irrigation, and here Irises are then about 2 inches under water. If a pond be made (and made so that it will hold and retain water), and an outlet made level with the bottom, the water will (if supplied by surface drains or other natural means) run straight away. In summer this opening can be raised, and where there is no natural supply it can be filled from a tap. Good rich soil should then be put into the pit up to within 2 inches of the summer outlet and the roots be planted on it, spreading the roots flat and covering with soil. Each plant will then be a sort of small mound, and will not suffer from damp in winter. All this sounds troublesome, but it is really quite simple. Where there is a running stream, a back-water subsidiary stream can be cut, which can be kept dry except in summer. It must, however, be remembered that the dampness rendered by shade is of no use whatever. The large flowers are nearly flat, and occasionally measure a foot across, and the colours are very rich and varied." There are many illustrations which are pleasing and instructive, especially that of Dianthus arenarius, D. alpinus and Sedum hispanicum, which are shown together.

LEGAL POINTS.

Adjoining owners, trees (*Afforestation*).—An occupying owner in the suburbs complains that his garden suffers through his neighbour's trees excluding the light and air which would otherwise reach it, and on account of the impoverishment of the soil. He asks what he can do "short of going to law." The only thing he can do legally short of taking judicial proceedings is to exercise the extra judicial remedy of self-help. Operating on his own premises he can, even without giving any notice, lop off overhanging branches. This was decided in the well-known case of Lemmon *v.* Webb. The owner of a tree cannot acquire the right for it to overhang his neighbour's land, either by prescription or the Statute of Limitations. But if no notice is given the aggrieved occupier of the garden must take care to avoid entering his neighbour's grounds. After due notice he could doubtlessly enter and abate the nuisance, but should take care to do no more than is absolutely necessary to abate it, and the King's peace must not be broken. The remedy of self-help therefore becomes inconvenient when the branches are of considerable height and his neighbour comes forth armed with "a strong hand," as the necessary felling operations conducted on his own property might involve expensive apparatus with divers little claims for compensation to injured workmen. The only appropriate remedy in such a case is an injunction, and Smith *v.* Giddy is a recent authority on the point that for a nuisance of this kind an aggrieved person is not bound to confine himself to the remedy of abatement, but can seek the assistance of the Courts. As regards the roots of these obnoxious trees, there is a deficiency of authority on the subject, but the general opinion is that the owner of a tree cannot acquire by length of time an easement for its roots to ramify under his neighbour's land; in fact, there is a case to the effect that if he planted the tree himself and its roots broke his neighbour's drain-pipes, he would be liable in damages. The remedy of self-help, however, would certainly be open as before. There is nothing to prevent our reader digging straight down in his own land and destroying the roots. On the whole, we are glad that he wishes, as far as regards this question, to stop short of "going to law," whether his wish arises on account of the congested state of the cause list or otherwise, especially because a claim for general impoverishment of the soil in such a case is open to much doubt. It is hard to conceive that an occupier would be held liable, because he failed to cut down two or three trees naturally growing on the land before he acquired the property, simply because they happened to sap away nourishment from his neighbour's vegetables, for he is not under any duty to cut down a crop of Thistles, which are by no means conducive to the amenity of the neighbourhood. On the other hand, it is hardly likely that he could indulge in a craze for afforestation in a garden in the suburbs at the expense of his neighbours.

Valuation (*Market Gardener*).—The general principle that an owner, whether a mortgagor or a landlord, must not be "improved" out of his own property has no application when statute enacts that for certain specified improvements an occupier shall be entitled to compensation. A tenant's privilege of running up a lengthy bill against his landlord, which in Roman law was merely limited by a general maxim, is confined to the matters mentioned in the Schedules of the Agricultural Holdings Act, 1908, which incorporates the Market Gardeners' Compensation Act, 1895. One of our readers enquires whether a landlord who has paid a valuation of £200 to an outgoing tenant and has allowed the incoming tenant to enter free of valuation can be called upon to pay again on the exit of the second tenant. He can be compelled to pay again. These little charges are continually recurring, but not so frequently perhaps as the income tax. Of course, the second tenant can only claim in such a case for the improvements he has made himself. In all probability a landlord who has once been bitten with a heavy valuation will keep a careful record of the state of the property at the time of the second agreement, so as to escape the risk of having to pay twice for the same improvement. Our reader seems to lay some stress on the fact that he himself paid out the valuation on the former tenant's departure. This does not affect the question, as by Section 7, if the new tenant had, with the consent in writing of his landlord, paid out the compensation claimable by the outgoing tenant, he could have added the amount to his own improvements on quitting the holding; so it is only a question of interest on the money in the meantime to be taken into consideration in fixing the rent.—BARRISTER.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Border of perennials (*M. C. M. A.*).—From your description it would appear that the border itself requires some preparation, and, if possible, a portion of the dry soil may be transferred to the central part where the heavy clay soil exists, and *vice versâ*. If you could do this and thoroughly trench the border, digging in plenty of decayed manure and leaf-soil if available, there should be no need for failure. It is quite possible that the near vicinity of the Cypress hedge will be found to be very dry and the soil poor, and deeper trenching and heavy manuring should be indulged in there. We hardly think you would like the idea of arranging squares of plants to produce effect, even though this were possible, and which, considering the informal characteristics of most plants, it is not. You speak of English Irises flowering with the late May Tulips. As this section of the Iris family does not flower before mid-June, we are wondering whether you are confusing them with some of the early flowering Flag Irises, which blossom in May. What is generally found to be the best way of treating a border of this kind is to first arrange lines of groups throughout the entire length of the border, the second line of groups alternating with those in the first one. For example, stretching a line throughout the border lengthwise, the plants might be arranged in groups of three, five or more, setting them in equal proportions on each side of the line, so that when in growth an informal colony or group would result. In a border of the width you describe, informal groups 4 feet or 6 feet across when in flower might appear in the second line of groups, and by arranging these at good distances apart and filling in the intervening spaces with the taller Lilies, also in groups, a fine effect would be secured. Such a border might contain three lines of groups, with a final margin of Saxifraga cordifolia purpurea or something akin at the margin. A background of Hollyhocks, tall Larkspurs, Sunflowers, Michaelmas Daisies in variety, Heleniums and other plants would be most effective; while in the second line of groups white and red perennial Pea, Knipholias, Phloxes, Michaelmas Daisies, Japanese Anemones, Rudbeckia Autumn Glory and other things should appear, finally arranging Aster Amellus, A. acris, A. lævigatus, Pæonies, Chelone barbata, Iris sibirica, Heliopsis lævis, Gaillardias, single and double Pyrethrums, Globe Flowers, Columbines, a few of the best Flag Irises, Alstrœmerias, Campanulas and other plants near the front; then by filling in the intervening spaces with Galtonia candicans, such Lilies as testaceum, candidum, pardalinum, tigrinum of sorts, croceum, colchicum, Hansoni, Martagon, canadense, umbellatum, pomponium verum and others a really good and permanent effect would be secured. As the border is sufficiently large to admit of good treatment, we would suggest that it be undertaken in a systematic sort of way, planting it from some prearranged plan where the colours could be seen beforehand. By adopting this method all

formality would be lost, while the effect of well-arranged masses of things would give you what you appear to require.

Stock failing (*D. de Banner*).—The plant sent was very fully rooted, and apart from this appears to have suffered from a fungoid attack of the stem near the ground level. Stocks at this season require to be almost dry at the root, and if in conjunction with this they are early sown and have become hard and well rooted, not much harm should follow if kept cool and well aired. If the plants are grown in pots, very firm potting should be indulged in. Keep the plants near the glass and give a slight dusting of dry lime to the stems.

Herbaceous plant border (*Bogie*). — The variety of plants suitable for use in any colour-scheme arrangement is very considerable and might vary according to individual tastes and requirements, and from experience we find that such details are best if left in the hands of those responsible for the carrying out of the work. We are precluded from giving you a plan or a detailed list setting out the arrangement of the plants by reason of the lack of space and other things, and possibly a generalised list would not prove of great service. Moreover, in a border of the kind you describe, the colour-scheme would be broken by the angle and by the varying width of the border; hence, in our opinion, the primary effect would be lost. In our opinion, handsome groups of perennials would suit your purpose better, and if you agree with this, we will give you a suitable list on hearing again from you.

Herbaceous plants (*James Paterson*).—Scutellaria mociniana has certainly no pretensions to being hardy so far as we know. It is a native of Mexico, and we have grown it with much success in the stove and in the warm intermediate house, where it constitutes a most showy subject. It is really a sub-shrub. Occasionally, however, certain Mexican plants are found to be far hardier than could have been expected; but we have no knowledge of this plant enduring an English winter, even in favoured South Coast gardens. We are not sure whether the other plants named are in general cultivation, but you might try Messrs. Veitch and Sons, Limited, Chelsea, or Mr. T. Smith, Newry. Campanula raddiana is a delightful plant, not yet in commerce, we think. Write to Mr. G. Reuthe, Keston, Kent, for it and the Lysimachia. We doubt whether L. Henryii, a dwarf-growing and not very showy species, will satisfy you. The Asters may be had from any of the hardy plant dealers near London, A. Climax being a very fine novelty. Echium Thompsonii at its best is not more than a biennial, and with early sowing might even be treated as an annual. It is more interesting than pretty.

Plants for carpet bedding (*H. P. K.*).—The following are all good: Alternantheras of sorts, the colour of whose leaves varies from yellow to deep crimson; Antennaria tomentosa, silvery grey; Begonia semperflorens, dwarf varieties; Cerastium tomentosum, whitish; Echeverias of sorts, as dot plants; Herniaria glabra, forms a dense dark green carpet; Mentha Pulegium gibraltaricum, deep green; Kœniga maritima variegata, white variegated leaves; Leucophyta (Calocephalus) Brownii, silvery white foliage; Lobelia pumila Ingramii, white flowers; Lobelia Emperor William, deep blue; Pyrethrum aureum selaginoides, yellow; Sedum glaucum, bluish green; Sempervivums, as dot plants; Spergula pilifera aurea, yellow; and Veronica repens, green. Of sub-tropical plants suitable for bedding there are many subjects that can be readily raised from seed sown in heat early in the year, and if grown on are very effective by bedding-out time. A selection of the best would include Acacia lophantha, prettily divided leaves; Cannas of sorts, handsome foliage and flowers; Eucalyptus cordata and Eucalyptus globulus (Blue Gum), bluish green foliage; Ferdinandia eminens, a tall-growing plant with huge roundish leaves; Grevillea robusta, pretty Fern-like foliage; Kochia tricophylla, a bushy plant like a Cypress, whose feathery foliage is a light green colour during the summer, changing to crimson towards the end of the season; Nicotiana Colossea and Nicotiana macrophylla gigantea, both with large, handsome leaves; Nicotiana sylvestris, handsome leaves and white flowers; Ricinus (Castor Oil Plant) of sorts, some with green and others with purple-tinted leaves; Solanums in variety, particularly Balbisii, prettily cut foliage and reddish spines, height 2 feet; Solanum giganteum, large leaves, purple flowers, height 4 feet; Solanum laciniatum, elegantly cut leaves, height 4 feet; Solanum marginatum, downy foliage, edged white, height 5 feet; Solanum pyracanthum, leaves covered with red spines, height 5 feet; Solanum Warscewiczii, huge deep green leaves, 6 feet; Wigandia caracasana, of upright growth with very large leaves; and Zea japonica variegata, the variegated leaved Maize.

TREES AND SHRUBS.

Method of pruning for various kinds of shrubs (*Miss Whitehead*). — The shrubs enquired about should be treated as follows: Spartium junceum may be pruned during January or February. Except when young, it does not bear hard cutting back, and ought not to be cut lower than the base of the previous year's wood; two or three buds of the youngest wood at least ought to be left. If pruning is commenced when the plants are very young, they may be kept dwarf; it is, however, impossible to dwarf old bushes much, for if cut back into old wood no young shoots appear. Deutzia gracilis vars. venusta and rosea may be pruned as soon as the flowers have fallen. Thin the old flowering wood out well, and leave as many young branches as possible. The old shoots ought to be removed right to the base. The Gum Cistus requires no pruning except when very young, and then it ought to be done with the finger and thumb by pinching out the points of the shoots. It is no use cutting it back into old wood, for plants so treated always fail to give satisfactory results. Hydrangea arborescens may have the previous year's branches cut back about halfway in February or March, taking care to cut very weak wood clean away at the same time.

Planting Lombardy Poplars for screen (*Catalpa*).—The distance apart to plant Lombardy Poplars for a screen depends entirely on the taste of the planter. The orthodox distance is about 12 feet apart, but you can plant them 6 feet apart if you like, and then cut out every other one when they become too thick. If you have room and prefer to do so, you could plant a double row, letting the plants of the second row stand between those of the first. The trees in each case should be 12 feet apart. Planting may be done at once, or any time during open weather between now and the end of February. In selecting your trees, choose well-rooted examples. Fairly large trees may be selected if you so wish, as this particular kind of tree is not a difficult one to establish.

Planting trees and shrubs (*T. H. R.*).—If you work your ground really well and add good soil where it is poor, you may safely purchase trees from a nurseryman, where the soil is of better quality than your natural soil. You will not stand much chance of success if you transplant Scots Pine, Larch and Hollies from the woods as you propose. It would be far better to obtain plants 3 feet to 4 feet high for planting. Such trees will become established better than the older ones, and will grow more vigorously. It is probable that you would lose 75 per cent. of trees transplanted from a wood. Holly, Portugal Laurel and Yew may be transplanted during the last week of April and the first fortnight of May. Common Laurel and Cupressus may be planted during early April, while, if well rooted, the common Laurel may be planted from February onwards. Holly, Yew, common Laurel and the Thuya you name may all be used for hedges, but they ought to be planted closer than you mention; 2½ feet apart is usually plenty wide enough, but you will have to be guided solely by the size of your plants. Purchase good, well-rooted specimens, and do not be content with self-sown seedlings from woods, &c. We advise you to consult some local expert with regard to the amount of fresh soil required, and also about the trees in the wood you mention, for by seeing the trees you contemplate transplanting a better idea can be gained of the possibilities of success.

White and red Diervillas (*Mrs. R. Ford*).—There is a white Weigela, or Diervilla as the genus is now called, known as W. japonica var. hortensis. We do not know of a scarlet variety, but there is a rich red one of great merit, which is probably meant, called Eva Rathke. There are several rose or rose-pink varieties, one of the best of which is called Abel Carrière. By selecting these three varieties you will obtain first-rate shrubs and the very best of the Weigelas, for while there are other white, red and rose varieties, they are not better than those named, and many are decidedly inferior.

Quick-growing trees and shrubs (*Mrs. J. W.*).—There are many quick-growing trees and shrubs which you might plant in the ground you mention. Poplars grow very rapidly if planted in damp ground, while Cupressus lawsoniana, Thuya gigantea, Austrian, Scots and Corsican Pines, Larch, Horse Chestnuts and Limes all grow quickly. Pyrus floribunda quickly forms a large bush, while Lilacs, Brooms, Laurels, Rhododendron ponticum, Berberis stenophylla, Forsythia suspensa, Purple Nuts and Mock Oranges all grow rapidly. The Daffodils, Lilies of the Valley, &c., may be left in the ground for many years without replanting. Snowdrops, Crocuses and Anemones would all prove useful.

THE GREENHOUSE.

Where to obtain Witsenia (*Miss C. L. Plumptree*).—The most likely place to obtain Witsenia corymbosa is from Messrs. Stuart Low and Co., nurserymen, Enfield. A few years ago they had a reputation for growing this plant, and doubtless that reputation exists still. If, however, they happen to have ceased stocking it, they will probably obtain a plant for you. It is not really essential that Eucryphia pinnatifolia should have peat, though it thrives very much better in many gardens if peat is provided. A rather light loamy soil with a little peat added, such as Rhododendrons like, suits it perfectly. The Œnothera you mention thrives best in loamy soil rather on the light than heavy side.

Primula obconica dying (*Enquirer*).—We have never before met with Primula obconica behaving in the way described by you, and cannot learn of their being affected by any disease. A successful grower of these plants to whom we submitted your question suggests that they may have been grown in rather too warm a structure.

So-called sport from Chrysanthemum Mrs. F. W. Vallis (*H. B.*).—We have carefully read your explanatory letter regarding your plants of Mrs. F. W. Vallis, and, after carefully inspecting the two blooms submitted to us, we are of the opinion that your plants have *not* sported. We are also of the opinion that the blooms in question are so deeply coloured owing to the late period at which the buds were retained and to the cool, moist weather of the past season. So many Chrysanthemums have varied in this manner during the season now coming to a close. If you still think the blooms are different to those of the parent variety, we advise you to grow a few plants next season and submit blooms to the floral committee of the National Chrysanthemum Society.

Twelve new Japanese Chrysanthemums for exhibition (*R. P.*).—In reply to your enquiry for the best twelve Japanese Chrysanthemums for exhibition sent out by the raisers in 1907 and 1908, we are pleased to recommend the following varieties: Leslie Morrison (rosy crimson), Mrs. Norman Davis (pure white), Mrs. G. F. Coster (orange, shaded apricot), Mrs. L. Thorn (canary yellow), Beecham Keeling (amber, shaded red), Master David (richest crimson), Hon. Mrs. Lopes (rich golden yellow), Gladys Blackburn (buff), Purity (white), Wm. Gee (pink), Mrs. W. Iggulden (rich yellow) and Frank Payne (blush, shaded mauve). To narrow down the selection to twelve varieties must necessarily exclude many beautiful sorts from this list; we have, therefore, made the selection with due regard to a proper proportion of the different colours. We have also assumed an autumn or late winter distribution in the years 1907 and 1908.

ROSE GARDEN.

Yellow rambler Rose (*J. H. W. Thomas*).—Undoubtedly the best yellow rambler up to date is Goldfinch. Its buds are orange yellow, the open flowers soft yellow, passing as the blooms age to lemon and lemon white. Claire Jacquier is perhaps a Rose that maintains the yellow colour more in its older blooms, but this Rose is not hardy and, therefore, not so suitable for arches, although in some gardens it grows very freely. Gardenia has a most delightful golden yellow bud, but it does not make quite the same show as Goldfinch. It is, however, a Rose you should possess. It is a most prodigious grower and would ramble over an old dead tree, or on an arbour or rustic bridge, with great effect.

Roses for potting up (*W. E. L.*).—Plants for this purpose need to be specially selected. Not only should they be bushy, but they should be budded very close to the root, so that there is no long stem seen above the soil when the plant is potted. Had the plants been properly pinched back in the spring, they would have been bushier. Frau Karl Druschki is a particularly bad Rose in this respect, and unless carefully stopped quite early, it will make the long, ungainly growths you allude to. Considering the future of the plants, we should at the proper time cut back such plants to within 2 inches of the top of the soil, otherwise you will have a gaunt-looking plant for some time; in fact, such plants rarely break away at their base unless compelled to do so by hard pruning.

Yellow Rose for wall and roof of heated greenhouse (*C. D.*).—A good substitute for Maréchal Niel is Climbing Perle des Jardins. It is a rampant climber, and when well established blooms freely. Duchesse d'Auerstœdt is too shy-blooming for greenhouse work. It is a grand Rose for a lofty south wall outdoors. Bouquet d'Or is very fine, so also is Mme. Hector Leuilliot, but none equals Maréchal Niel. Have you tried this latter Rose on a standard? If a good healthy young Briar is planted and budded with Maréchal Niel, it may be grown for years before canker destroys it; or if you have another climbing Rose in your greenhouse, Maréchal Niel could be budded thereon. It is such a glorious Rose that some amount of trouble is well repaid if it succeeds. There should be a thorough preparation of the soil, that is, in deeply digging it and affording artificial drainage if required; then the tree grows away unchecked. Often the want of such preparation is a cause of failure. We think the Rose is more likely to do well planted in an inside border than one outdoors. In a greenhouse of low dimensions, some of the grand yellow Roses among the dwarfer growers are the best. Souvenir de Pierre Notting would quickly cover an 8 feet to 10 feet wall, and you could have another plant in a large pot or tub on the staging for covering the roof. Try this Rose or the dwarf form of Perle des Jardins, and you will be pleased with the result.

Tea and Hybrid Tea Roses with erect blooms (*L. M. B.*).—Almost all the Tea and Hybrid Tea Roses are good autumn bloomers, the exception of your list being Gloire Lyonnaise. If your desire is colour effect, you are sadly out in the selection of some of the varieties. We mention what we consider the best sorts of your list, and give the names of others that are better for purposes of bedding. Taking the yellow Roses first, you cannot do better than select Mme. Ravary. This is the best of the golden yellow bedders until we have M Pernet-Ducher's Rayon d'Or. Mme. C. Guinoisseau is good, so also is Mme. Falcot. Mrs. D. McKee is nearer white than yellow, and Souvenir de Pierre Notting does not open well unless very hot weather prevails. Harry Kirk, Mrs. Peter Blair, Lady Roberts and Melanie Soupert are all first-rate. Of the crimsons, Liberty is one we can recommend; Warrior is good in autumn, so also is Corallina and General Schablikine, but they are hardly rich enough in colour to differentiate them from the rose-pinks. Richmond is fine, so also is General McArthur, probably the best of all red bedders. Ecarlate is also good. Of the pinks, we can readily select four of your list, namely, Caroline Testout, Earl of Warwick, Killarney and Mme. A. Chatenay. Among rose-pinks Mme. Jules Grolez is pre-eminently the best, and Lady Ashtown is also grand. Lady Battersea and Farbenkönigin would make up four beautiful kinds. Among the white and blush Augustine Guinoisseau and Viscountess Folkestone are excellent, and to make four you could plant Pharisaer and La Tosca from your pink, as they are nearer blush white than they are pink, or Mrs. D. McKee.

Selection of Roses (*D. S. H.*).—Your selection is a very good one, excepting Lyon Rose as a standard. This we fear you will find expensive, even if it is obtainable in this form. You would find Commandant Felix Faure a more serviceable crimson Rose than Ben Cant. With these exceptions we cannot improve your list.

Molly Sharman Crawford and Harry Kirk (*Alan Lawrence*).—The raisers of these two lovely Roses, Messrs. Alex. Dickson and Sons, class them both as Teas. They are both good growers, but you may not think so if you purchase the tiny little plants the Continental growers send out. It is much better to patronise our home growers and thus encourage the production of British-raised Roses. The grafted plants may do as well as budded plants eventually, but you really lose a season, and it is better to pay a shilling or two more and have a good budded plant of a new Rose. Any little scrap of growth is used to graft on to pieces of root about the size of a quill, whereas the budded Briar has ten times the power in its roots, and is thus able to develop a really good sturdy growth. Moreover, we have seen thousands of these tiny grafted plants succumb during a severe winter, for they have not the stamina to enable them to withstand the rigours of our climate.

Protection for Rose-beds against strong winds (*G. W.*).—You cannot do better than have some hurdles placed on the windy side of the beds. We do not think they would be too much shaded, as, of course, the hurdles would only be from 3 feet to 4 feet in height. You can always keep the wichuraiana Roses that are planted in the hurdles in bounds, and, if you preferred, you could plant Roses of the type of Zepherin Drouhin, Alister Stella Gray, Trier, &c., intermingled with the wichuraianas, which would afford you a more perpetual blooming. It would certainly be an advantage if you make the beds 12 inches wider.

Roses and other wall shrubs for Berwickshire (*D. M. H.*).—The following Roses ought to do well with you on your south wall: Gloire de Dijon, Souvenir de la Malmaison, Tea Rambler, Grüss an Teplitz, Dorothy Perkins and Cheshunt Hybrid (climbing). Suitable flowering shrubs are: Jasminum nudiflorum, J. officinalis, Cratægus Pyracantha, Clematis montana, C. montana var. rubens, C. Jackmanii superba, C. Ville de Lyon, Hydrangea petiolaris, Lonicera japonica, Cydonia japonica, Wistaria chinensis and Forsythia suspensa. For the cottage walls you speak about with a northern exposure, you may try common Ivy, Clematis Jackmanii superba and Cotoneasters buxifolia and microphylla. The Forsythia will also most likely thrive in the same position.

Planting wichuraiana Roses to carpet Rose-beds (*M.*).—Yes; you could plant some of the beautiful wichuraiana Roses for the purpose of pegging down among the standard Roses, and the Tulips would grow up among them and do no harm. We should plant varieties that bloom together. For early June the following would harmonise nicely: Alberic Barbier and Ruby Queen alternately; for end of June, Gardenia and René André alternately; and for July and August, Dorothy Perkins, White Dorothy and Hiawatha alternately. We should personally prefer to cover the ground with the ever-blooming Polyantha Roses. They can be kept quite low by pruning to the ground every year. Aschenbrödel, pink; Eugénie Lamesch, orange; Perle des Rouges, crimson; and Schneewitchen, white, would make a fine contrast. They are really our best low-growing bedding Roses.

Standard Briars from cuttings (*F. G. S.*).—The rooting of long pieces of hedge Briars planted as cuttings is nothing new, but we fear you will be sadly disappointed at the puny lateral growths such Briars will make the second year. There is not, in the specimen received, sufficient root power; moreover, the Briar itself is much too green to withstand a severe winter. No doubt in three or four years Briars might be obtained strong enough to bud; but is it worth while taking this trouble? You would do much better by budding a strong-growing Briar or Rugosa Rose on to Manetti stock, as is done in Holland, and budding into the stem, or "barrel," the second year. Such standards produce marvellous heads, but the stems are very slender and must have the support of a good stake. Providing you can obtain hedge Briars freely, there is no plan better than procuring these for standard Roses. Many years ago we planted out some thousands of seedling Briars, good strong ones, with the object of obtaining standard Briars. All growths were cut away except the strongest, and we certainly obtained some very good Briars, although very slender.

Thirty-six good garden Roses (*J. Gibson*). Twelve Hybrid Perpetuals should include Alfred Colomb, Charles Lefebvre, Louis van Houtte, Prince Camille de Rohan, Duke of Edinburgh, Prince Arthur and Senateur Vaisse, nearly all of which are fragrant and vigorous growers, and represent the best of the dark-coloured Roses; Ulrich Brunner, Mrs. John Laing, Frau Karl Druschki, Mme. Eugène Verdier and E. Y. Teas. Twelve Hybrid Teas should include Bessie Brown, Caroline Testout, Duchess of Portland, Kaiserin Augusta Victoria, La France, Mrs. W. J. Grant, Joseph Lowe, Marquise Litta, Gladys Harkness, Florence Pemberton, Mme. Wagram and Mamie. Twelve Teas should include Maman Cochet, White Maman Cochet, Souvenir d'un Ami, The Queen, Mrs. Edward Mawley, Muriel Grahame, Souvenir de Pierre Notting, Marie van Houtte, Anna Olivier, Lady Roberts, Hon. Edith Gifford and Comtesse de Nadaillac. To the above you might like to add the new fragrant Hybrid Tea Claudius, which, when shown by Messrs. B. R. Cant and Co. of Colchester on October 12, gained an award of merit. It is an exceptionally fine free-growing and powerfully scented variety.

KITCHEN GARDEN.

Manure for Asparagus-beds (*Ardent*).—Instead of giving your beds a dressing of salt towards the end of March, as is the usual custom, give a similar dressing of nitrate of soda. Towards the second week in April give your beds a further dressing of Peruvian Guano, washing it in with a good soaking of water. About the middle of May give another dressing of guano, washing it in as before. This will greatly help the roots to produce strong grass until the time for cutting ceases, which should be not later than the second week in June. A fair dressing of the above manures will be two good handfuls to a yard run of the beds.

Dead leaves and Tomato-growing (*Tobias*). Tomatoes do not succeed well when there is too much leaf-mould in the soil. We think you will do much better by planting your first crop, at any rate, in boxes as you suggest, and trust to feeding your plants well after you have obtained a good lot of fruit. Heavy crops are produced in this way. In any case, if you plant later where the leaves are, you should add three parts of soil to one part of leaves, and sprinkle a little bone-dust and quicklime over the soil as the mixing goes on.

FRUIT GARDEN.

Apple shoots for inspection (*T. W.*).—There are no living woolly aphides on the branches sent, and if they should reappear it would be well to paint the affected spots with methylated spirit. They are not likely to be very evident before the spring. The tree is also infested with mussel scale, an insect which protects its egg with a small mussel-shaped scale about one-eighth of an inch in length. To reduce the numbers of this pest the tree should be sprayed with alkali wash some time about the end of February, before the buds burst, using 2lb. of caustic soda and ¾lb. of treacle to ten gallons of water.

Apples spotted (*Baroness V. R., Russia*). The Apples are badly attacked by the Apple scab fungus, Fusicladium dendriticum. This fungus attacks fruit, leaves and shoots of the Apple and forms scabby spots on the fruit, which are frequently, subsequently, attacked by other fungi, which cause decay, as they are in the present case. On the leaves the spots are frequently not very noticeable, and on the shoots they are less so, but sometimes cause cracks in the bark and subsequent death. It is important that all dead and dying shoots should be removed as soon as possible and burnt. All diseased fruit should be burnt. Spraying the trees with Bordeaux mixture of half the strength used for Potatoes is found to check the disease to a great extent. The spraying should be done just before the buds burst, and twice again at intervals of about a month.

King of the Pippin Apple tree diseased (*O. B. W.*).—We think your tree has been attacked by what is called the Pear and Apple tree blight, Micrococcus amylovorus. In nearly all cases of attack by this blight it will be found that some predisposing cause of weakness to the tree has been in active work favouring its attack for some time before. You say your tree carried a very large crop—too heavy, we surmise, for the power of its roots to properly develop and ripen—hence the tree by its weakened condition has fallen a victim to this blight. We also think you will find that dryness at the roots has helped to bring about the collapse. We do not think your Apples will suffer much damage, as the small specks you speak of are only on the surface. Each Apple before it is stored should be carefully wiped over with a cloth to make sure that no spores of the fungus are left on. The leaves also as they fall should be burnt, also the prunings. The tree should then be sprayed with Bordeaux mixture. This will kill the fungus. This attack you will find will considerably weaken your tree. We advise you to at once take off 4 inches of the surface soil as far as you think the roots extend, and replace with turfy loam chopped up into pieces the size of one's fist, adding to each barrow-load of loam half a gallon of bone-dust, the same of lime and the same of fresh soot, treading it down as firmly as possible and placing on the top of it a layer 3 inches deep of rotten farmyard or stable manure. The winter rains will wash down the goodness from this to the roots of the tree, and next summer it will afford excellent material for the new surface roots of the tree to feed on.

Almond fruit for inspection (*Mrs. E. J. Chinenson*).—The Almond fruit you send is quite wholesome, but it appears to be a very poor form or the fruit was badly matured. The Almond of commerce is a thin-shelled variety of the common Almond called dulcis. Many of the Almonds grown in gardens produce excellent nuts, but the shells are very thick and hard. Bitter Almonds are recognised by their bitter taste, which is due to the prussic acid in the fruit.

THE GARDEN.

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CONTENTS.

Winter Colours and Flowers 13
Notes of the Week .. 14
Correspondence
Gloxinias in a cool place 14
French gardening .. 15
Gardening of the Week
For the South and South Midlands .. 15
For the North and North Midlands .. 15
Kitchen Garden
Some good winter vegetables 16
Potato Snowdrop . 16
Pea Webb's New Model 16
Fruit Garden
Fruit notes 16
Greenhouse
Polypodium Schneideri 17
Impatiens Holstii 17
Bougainvilleas and their culture 17
Rose Garden
Planting Roses under glass 17
Roses for unsightly corners 18
Flower Garden
Yucca recurvifolia .. 18
Flower Garden
Polyanthuses from seed *versus* division 18
Tufted Panies in the rock garden 18
Trees and Shrubs
Evergreen shrubs for small gardens 19
The hardy Heaths .. 19
Establishing the Clematis in the open ground 19
Gardening for Beginners
Garden work week by week 20
Planting and propagating the Ivies .. 20
How to prune young and old Vines 21
The Town Garden .. 21
New plants 22
The Editor's Table .. 22
Ware's nurseries 22
Answers to Correspondents
Flower garden 23
Trees and shrubs .. 23
Rose garden 23
Greenhouse 24
Fruit garden 24

ILLUSTRATIONS.

A good crop of Potato Snowdrop 16
A hybrid Fern: Polypodium Schneideri 17
A good greenhouse plant: Impatiens Holstii 17
A stately hardy plant: Yucca recurvifolia 18
Tufted Pansies or Violas in the rock garden 19
Planting and propagating the Ivies 20, 21

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

WINTER COLOURS AND FLOWERS.

IT is generally supposed that nothing brings interest to the garden in winter except the browns of the leafless branches and the evergreen leaves of a few oft-repeated shrubs; but this is incorrect. Winter has its flowers as well as other seasons of the year; but at this season it is the evergreen and berried shrubs that impart richness to the shrubbery or wherever they are placed. Much may be done towards giving colour to the garden at this season by retaining the

Stems of Hardy Plants.

The writer advised years ago the retention of the stems of the Knotweeds (Polygonum cuspidatum and P. sachalinense) for the sake of their rich nut brown colour when the leaf beauty had departed. It was the custom to ruthlessly cut these down at a time when the entire garden underwent its autumn clearing up, but at last it was seen that in the dead stems of the Polygonum there was as much beauty of colouring as in the full summer-time. No matter whether it is grouped on the fringe of woodland, in the border or by the lakeside, the Polygonum is a plant that the writer would use for its effect alone at this season of the year. Fortunately, in the Royal Gardens, Kew, the plants are left to fulfil their winter mission, and Fuchsia Riccartoni—the best known, perhaps, of its family—has a thicket of light brown stems, a group of this in the dull light of a winter's day giving almost as much pleasure as when the shoots are bespangled with the crimson flowers.

Writing of the winter colouring of the stems of hardy plants reminds one of the deep greens of the Sedums and Saxifrages in the rock garden. The Mossy Rockfoils or Saxifrages in particular form dense mats of verdure over the rocks, their rich wealth of foliage falling over to form thick curtains of dense green growth. Crimson and brown shades are painted upon the thick leathery leaves of the larger Rockfoils, the Saxifrages or Megaseas as they are also called, S. cordifolia, S. Stracheyii and others, and when these are placed at the corners of the borders or in some position where their bold growth is desired, no plants are more interesting and picturesque.

Shrubs.

It is among the shrubs that one finds winter flowers of the greatest charm. In the Royal Gardens, Kew, at the present time the Wych Hazel (Hamamelis mollis) is clouded over with its golden-coloured twisted petals, which make a brave show in the weak sunshine. Groups of this should be planted near the house to bring the fresh charm of the blossom-laden twigs under closer observation. The Hamamelis that has been mentioned seems destined to rival H. arborea, the species that is the more common, in popularity, but there is space for both in our gardens, the latter having flowers of richer colouring with sepals of a more pronounced purplish shade. H. arborea may be associated with the little dense green-leaved Partridge Berry (Gaultheria procumbens), which is now covered with crimson berries, a happy winter association of two shrubs that have little in common. Referring again to H. mollis, one of the best-known authorities upon trees and shrubs mentions: "H. mollis bids to be as good, if not better, than H. arborea, which is the most ornamental of the older species. It is a strong-growing shrub, introduced from China by Messrs. J. Veitch of Chelsea in 1898, and differs from all the other species of Hamamelis by having large, broadly ovate leaves, thickly covered with a felty mass of stellate hairs. The flowers are bright yellow and larger than those of H. arborea, and instead of the petals being twisted, as in that species, they are straight with hooked ends. It also flowers earlier than H. arborea. Anyone who grows Hamamelis should obtain this plant. All the Wych Hazels are interesting, and H. mollis is not the least important; it will probably soon be grown in all good gardens."

The Snowberries (Symphoricarpus) are a welcome relief to the green shades of the surrounding shrubs, and are worthy of a better fate than some rough corner in the shubbery. They should be brought—the large-fruited species, mollis, in particular—into the garden proper, where they can be seen and the effectiveness of their fruits enjoyed at this season of the year; Pernettyas, peat and shade loving, and covered with berries that vary in colour according to the variety, the Winter Sweet (Chimonanthus), Winter Jasmine (Jasminum nudiflorum), Daphne Mezereum, or the Mezereon, which flowers early or late according to the season, the long-catkined Garrya elliptica and the Winter Honeysuckles (Lonicera fragrantissima and L. Standishii). A soft glow comes from the Siberian Crab, its fruits still remaining in abundance on the leafless branches; Cotoneaster rotundifolia, a mass of scarlet berries and a bright spot in the woodland; and the Heaths (Calluna vulgaris alba Searlei, which is dense green in colour and growth, and the purple-shaded C. vulgaris Alportii). The Heaths fill large beds at Kew near the greenhouse and are flowerless, but the growth is pleasant to see during the winter; they are as welcome as any dwarf evergreen. The golden-leaved Privet if grouped is rich in colour,

but must not be dotted about the shrubbery, otherwise the result is "spotty."

Nor must the Ivy be ignored. Many uses are made of this evergreen climber at Kew; it covers tree stumps, chains, forms itself into dense mounds and glistens with colour at this time. The Ivy is one of the most valuable of evergreens and, whether it is in the hedgerow or in the garden, is always welcome. These are merely notes, and we should be pleased if our readers would supplement them with the names of shrubs, evergreen or otherwise, that they have found desirable for winter effect.

NOTES OF THE WEEK.

January 11.—Royal Horticultural Society's Exhibition, Vincent Square, Westminster. Horticultural Club, Hotel Windsor, 6 p.m.

Polyanthuses for seed.—In our last issue we omitted to state on the coloured plate of Polyanthuses that these were growing for seed in Messrs. Sutton and Sons' trial grounds at Southcote, Reading. The plate, which has created considerable interest, was prepared from a colour photograph kindly lent to us by Messrs. Sutton.

National Vegetable Society.—Preparations for the show to be held in September next are being pushed forward with all possible speed, and the committee hope to be able to publish the schedule in the course of a few weeks. In addition to the numerous prizes which have already been mentioned in THE GARDEN, Messrs. Clay and Sons have placed 5 guineas at the disposal of the committee, and this will probably be offered for Potatoes. We hope all our readers will make a point of joining the society. The annual subscription is only 5s., and full particulars can be obtained from the hon. secretary, Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow.

National Dahlia Society.—The annual general meeting of the members of the above society was held at the Hotel Windsor, Victoria Street, Westminster, on the 21st ult., Mr. E. Mawley, V.M.H., presiding. In the annual report read by Mr. E. F. Hawes, the committee stated that the early show held at the Crystal Palace suffered severely owing to the cold weather, but the later exhibition held at the Botanic Gardens was very good indeed. Two shows are to be held this year, one at the Crystal Palace on September 8 and 9, and the other at the Royal Botanic Gardens on (if possible) September 20 and 21. A conference on Dahlias has also been arranged at the Essex Hall, Essex Street, Strand, in March. The receipts during the year were £194 17s. 11d., and the expenditure £193 18s. 8d. Mr. E. Mawley, V.M.H., was re-elected president, and Messrs. W. Stephens and C. E. Wilkins were added to the list of vice-presidents in place of Mr. John Green and Mr. J. T. Bennett-Poë; Mr. E. F. Hawes was elected secretary, Mr. H. H. Thomas, who had been acting as joint secretary, having resigned. Mr. G. Gordon, V.M.H., was elected chairman of the executive committee.

Royal Caledonian Horticultural Society.—The notices for the annual general meeting of this society, which is to be held on January 12, contain a recommendation that the following office-bearers be elected for the year in lieu of the Right Hon. Lord Balfour, president; Mr. R. Brooman White, vice-president; and Messrs. George Wood, R. V. Mather and G. P. Berry, councillors, who retire by rotation. Those proposed for the offices are: President, Mr. J. Stewart Clark of Dundas; vice-president, Sir A. Oliver Riddell; councillors, Mr. John Highgate, The Gardens, Yester; Mr. David King, Murrayfield; and Mr. John Aitchison, Monkwood, Kilgraston Road, Edinburgh. Lord Balfour of Burleigh has been president for several years, and has done the society yeoman service since his appointment, having all along taken the warmest interest in its welfare. The others retiring have also been deeply interested in the society, but it is gratifying to know that such able and earnest successors have been found willing to be nominated. An important notice appears on the agenda, this being: "That a remit be made to the council, with powers, to hold friendly conferences with the council or members of the Scottish Horticultural Association as to the future of both societies and to report." This question has been thought of for some time, and, provided that several difficulties in the way can be surmounted, the union foreshadowed would probably be beneficial to the future of Scottish horticulture. From an abstract of the accounts of the society annexed there appears to have been a loss on the working for the year of £97 6s. 5d., but by various items on the credit side, including the appreciation in value of Metropolitan District Railway Stock, amounting to £57 10s., the net loss is reduced to £27 4s. 1d.

Messrs. Dobbie and Co.'s departure from Rothesay.—At the annual social evening of the employés of the above firm, over which Mr. W. Cuthbertson, J.P., senior partner of the firm, presided, reference was made to the departure of Messrs. Dobbie from Rothesay to Edinburgh, a move that is to be made during the present year owing to the expansion of the business. As many of our readers are aware, Messrs. Dobbie have extensive seed grounds at Mark's Tey in Essex.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

What is "Greek Lavender"?—I am anxious to find the real name of a plant I saw this summer in a Cornish garden, called by the gardener "Greek Lavender." It formed a low, spreading bush with rough grey leaves and spikes of purple flowers, of much the same colouring as Nepeta violacea, only much larger and more shrubby. It was in full flower in June. Perhaps you or your readers could kindly help me.—E. G. H.

A Chilian Rose garden: Frau Karl Druschki and others.—I have read your "Century Book of Gardening" and other books with great pleasure, and thought perhaps you would like to hear of my Chilian Rose garden. We get nearly always the new sorts. Frau Karl Druschki in my garden is 10 feet high, but we do not call it by such an awful name; we call it La Purissima, which is Spanish for the Feast of the Purification of the Blessed Virgin. Do you not think it a more appropriate name for this lovely white flower? I have a wall 20 feet long and 12 feet high smothered in Maréchal Niel. I suppose it would be quite unusual at home, but here people object to yellow flowers, as in a gift they are supposed to exercise some evil influence; not that exactly, but what they call *disprecio*, which means that you do not appreciate very much the person to whom the gift is made. Most Roses grow splendidly, and there is a dear little bird called the torito, which eats off all the aphides, and so there is no need to syringe. Do you not wish you had that little bird at home? Etoile de Lyon is the only unsatisfactory one; the buds refuse to open unless nearly all are picked off. I wonder how it is; perhaps it is too warm. It only rains here three or four times a year, and watering is done by irrigation, which is rather troublesome, as the water hardens the ground and brings weeds in frightful abundance. This is my *bête noir*. I think there are all the weeds one sees in England and a lot more besides. I thought perhaps you would like to know that your books and articles reach even this out-of-the-way corner of South America and are appreciated.—J. H. PAYTON, *Chili*.

Where to obtain wattled hurdles.—In your issue of the 18th ult. a correspondent is told that you do not know where wattled hurdles can be obtained. Presumably they are for wind-screens, and the cane fencing sold by R. Davies, sen., Limited, Brunswick Street, Liverpool, would, I think, be suitable. Each piece would need to be held in position by three stakes, but it is very cheap, and it would probably be worth your correspondent's while to get a small piece as a sample.—H. I.

Climbing plants and buildings.—In reference to the note on the above (page 627), I agree with your correspondent S. Smith in so far that the Ivy, when properly attended to, is not harmful to the walls. Sometimes the Ivy is regarded as an unsatisfactory climber because it harbours various birds or insects, but I have not known a case of walls being rendered damp through it. A few weeks ago I removed a quantity of Ivy from the wall of a dwelling (the occupier of which strongly objected to Ivy in any form), and although rain was falling during part of the time, and the weather had been anything but settled for some weeks, the wall, also the root-fibres of the Ivy, were perfectly dry, so much so, in fact, that when pulling the matted growths from the wall the dust rose thickly, although the leaves were wet.—COLIN RUSE.

The modern Daffodil.—I was glad to see Mr. Jacob's letter referring to my notes on the modern Daffodil; but I must disclaim any idea of even hinting at such comparisons as he suggests, and I hardly think he has quite caught the meaning of my notes when he holds up Barri conspicuus as the very antithesis of my modern Daffodil. My letter was not written in condemnation of the modern Daffodil in general, but of the tendency towards dishonesty in the modern ways of exhibiting the flower and the danger of encouraging the wrong sort. My appeal was for the encouragement of the right sort by enforcing the strictest rules against faking. The modern Daffodil of the right sort is a superb flower, improving steadily year by year, and fast pushing out the older varieties. Even Barri conspicuus will drop out of the running when some of the fine new varieties become more plentiful, and the same will happen to Autocrat and Frank Miles. I have myself been fortunate enough to raise more than one seedling from the latter which surpass it in every way. Queen Bess I have never found satisfactory. Early it certainly is, but that I think is its only merit. To give just a sample half-dozen of what I call the right sort of modern Daffodils, I would name Seagull, Albatross, Firebrand, Waterwitch, White Lady and Elvira; they are all first-rate and should soon be in everybody's garden. There are, of course, many varieties as good, and many perhaps better, but these six are not expensive and will suffice by way of example. Mr. Jacob, I can see, is in sympathy with my object, and I feel sure that he will use his influence in the right direction when the time comes.—W. A. WATTS.

Gloxinias in a cool place.—The note on the culture of Gloxinias in THE GARDEN for the 25th ult. (page 629) leaves nothing to be desired with regard to the raising of these beautiful plants from seed and their subsequent culture in a warm structure. They may, however, be successfully grown under much cooler treatment, and in this way they are valuable to the amateur with limited glass accommodation. In the first place, it is useless under these conditions to attempt their culture from seed, as the young plants will perish unless they have a fair amount of heat, but given one year old tubers about the size of a penny they will succeed under quite cool treatment. These tubers may be purchased cheaply when dormant as mixed seedlings. Treated much as tuberous

Begonias are—that is, given the protection of a greenhouse where fire-heat is dispensed with about the end of April—the Gloxinias, in my case at least, may be depended upon to give satisfaction. True, the flowers are late in opening compared with those in a warmer structure, but they are none the less valuable on that account. Some flowers open in July, but the finest display occurs during the month of August, and frequently extends well into September. In the summer the plants will thrive quite as well in a cold frame as in a greenhouse. I prefer to pot the tubers in the month of March, using a soil made up of loam, leaf-mould and sand. Pots 3 inches to 4 inches in diameter are suitable for starting the tubers. Care must be taken not to over-water till they start freely into growth. As these pots get well furnished with roots the plants must be shifted into larger ones, those 5 inches in diameter being a suitable size for most of them.—H. P.

French gardening.—Doubtless many readers of THE GARDEN perused with the same interest that I did the excellent report of Mr. Chapman's lecture on "French Gardening" at Bournemouth on the 7th ult. We have heard and read such wild and inexact statements with respect to the assumed profits derivable from that form of intensive gardening that it was most refreshing to learn from one engaged in that special culture, and, therefore, having great practical knowledge as to its real character, its necessities, cost and profits. Had not some used this as a means to a personal end, no one would have been so misled as some credulous persons, and women especially, seem to have been. Even when Mr. Chapman stated that a profit of some £60 to £70 per annum might be made, he qualified that remark by adding that two or three years must elapse from the start before that maximum profit can be made. But when it is remembered how great must be the initial outlay for frames, cloches, manure, boxes, baskets, tools and numerous other things, reaching into per acre six times the outlay needed for the working of an acre of ground in the best English fashion, the sum annually set apart to meet depreciation must be relatively great, and, having regard to the original outlay, the profit per acre named is by no means excessive. Mr. Chapman quotes the price of manure as being in this country 5s. per ton; that is, in my experience, a low estimate. Twenty years ago I used to pay 10s. per cartload fresh from the London mews, the weight perhaps 25cwt. I cannot conceive, with the great shrinkage of horses in the metropolis, that manure requisite to furnish heat can be purchased at a smaller price now. Certainly it may be delivered at suburban railway stations at less cost; but if it has to be carted a mile or two, then the cost is greatly increased. Another element in the production of profit is sunshine, and, as Mr. Chapman told his hearers, in France that element was much more powerful early in the year than it is with us. That fact enabled him to show that, although he is gardening on the South Coast, yet the French growers can beat ours by a fortnight in our own markets. How much in the matter of successful trading that means home growers can testify. Looking at the initial outlay, the amount of labour required, the risk and the comparative limitation in the crop variation consequent on this French gardening, is it worth adopting here? Nothing that can be done in the open can compensate for the absence of sunshine. Had we that element as France has it, and with our own ordinary appliances, how much more we could accomplish now, and with less risk and cost. If such a season as that of the past year has been disastrous to many phases of gardening, it is obvious that intensive culture, so-called, must have suffered more; but its promoters are careful to tell us little on that head. To Mr. Chapman great thanks are due. Would that he would give more of his practical knowledge. —A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

PEACHES.—Early Peaches that are commencing to open their flowers must have less moisture in the house. Overhead syringing must be stopped and a more buoyant atmosphere kept up. On bright days, when the pollen is ripe, they will require to be brushed over lightly with a rabbit's tail to ensure pollination.

Cucumbers.—Plants in bearing must not be overcropped at this season of the year. Syringe about midday to keep down red spider, but only on bright days, or else in damp localities the plants will probably get mildew. Should this appear, dusting the leaves with flowers of sulphur is very beneficial. No time must be lost in making a fresh sowing. Improved Telegraph is one of the best for an early supply.

Melons.—These should now be sown, choosing a good early variety, such as Ringleader, for the work. Beauty of Syon and Hero of Lockinge are also excellent for this first crop.

Strawberries.—Get in batches of these to follow as required. An early lot should be coming into bloom now, and it will be necessary to pollinate with a rabbit's tail, doing it very lightly so as not to bruise them in any way.

THE HERBACEOUS BORDERS.

During open weather the overhauling of the borders may be carried on. It is not necessary to dig up all the plants annually; in fact, it is very harmful to many choice subjects. The coarser-growing plants, such as Asters, Helianthuses and Phloxes, that have become crowded should be lifted, divided and put back again. In dividing the roots bear in mind that the outside growths make the best plants; so it is best to cut off and plant the outside portions of the clumps and throw the middles away, that is providing extra stock is not required.

SHRUBBERY BORDERS AND BEDS.

Although autumn is by far the best time to plant deciduous shrubs, it is not yet too late. In making new beds or borders the great thing is to have all the ground trenched and well broken up. The difference in the growth of shrubs planted in well-broken ground to those planted in hard, unbroken ground is very marked. Grouping the various subjects is the best plan, for they are seen to much better advantage than when planted singly. The number of flowering shrubs is very large, and the landscape gardener has such a selection to choose from that there should be no monotony or sameness in the work. Top-dressing is very beneficial to all shrubs, and old hot-bed material is very suitable. After dressing the beds and borders may be lightly forked over, care being taken not to go too deep, or many roots will be broken and exposed. In remodelling and transplanting, to give more room where plants have become overcrowded, great care is necessary in lifting.

KITCHEN GARDEN.

Onions.—To get good exhibition Onions, seed may be sown now in gentle heat, either in pots or boxes. Sow the seeds thinly and cover with a sheet of glass. As soon as germination occurs place the box or pot close to the glass to induce sturdiness. This also applies to Leeks if good roots are wanted.

Cauliflowers.—A small sowing of the earliest varieties may be made under glass in a mild temperature, an early Peach house or vinery being a very suitable place. Early Forcing, Snowball and Early Giant are excellent for an early supply.

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FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

OWING to the long spell of unfavourable weather from October till Christmas, work in this department is in rather a congested state in most gardens. In favourable weather push on digging and trenching, as the more time the soil can have the benefit of the elements the better will be crops grown on it during the coming season. This is more important where the soil is of a damp or heavy texture. Leave the surface in a rough condition, so as to expose as much of it as possible to sun, wind and frost. During hard frost wheel on manure, as by so doing much time is saved when the digging is in hand. Some object to laying out the manure in barrow-loads any length of time in advance of digging, but this objection can be overcome to a certain extent by making large heaps at greater intervals.

FRUIT GARDEN.

Pruning is also somewhat behind in many places, so on fairly mild days this should receive attention. It is an excellent plan to dig in the early part of the day, and prune during the time the sun gives a little warmth to the fruit plots. A return to the spade in the afternoon when it gets cold is a very economical way of planning the work. The staff under these conditions get through much more work, as it is certain that no one can stick closely to his work when shivering with cold.

THE SHRUBBERIES.

Any pruning required in this department can now be seen to. The best tool to use is a good sharp knife. Hedge shears are only to be employed on hedges or for trimming Ivy. In most cases it will only be necessary to cut back straggling growths that spoil the symmetry of the bushes. If skilfully performed there will be no wounds visible when the work is finished. At the same time remove all dead wood, and any bushes that have outgrown their space may be cut over or removed altogether. Planting of the commoner evergreens can well be proceeded with; but Hollies and Rhododendrons are much more successfully transplanted during the first half of April. Deciduous trees and bushes of all kinds may also be planted now.

PLANTS UNDER GLASS.

Hippeastrums.—Many of the bulbs will be showing the points of the flower-spikes, and should be placed in a light and rather warm structure. Water must be given sparingly for a time. If it is wished to have a fine display of these flowers at any one time instead of allowing them to bloom at random, as they come on of their own accord, the more forward plants should be retarded by keeping them in an ordinary greenhouse temperature, while the more backward bulbs are placed in the stove to hurry them a little.

Cyclamen.—These are very useful at this season, and if given a night temperature of about 45° they last a long time in beauty and remain quite free from the troublesome mite, which often attacks the leaves when a high temperature and dry atmosphere are given. Red spider, too, is to be feared under the latter conditions. The house should be vaporised occasionally to keep all safe. Seedlings raised last autumn must not be over-watered, and a slight stirring of the surface of the soil at times is very beneficial.

Begonia Gloire de Lorraine.—The most forward batch will now be nearly finished blooming, and should be cut over so as to induce the production of good early cuttings. Place in a rather moist and warm house, and growth will soon start. Later plants may now have a rather lower temperature, so as to retain their freshness as long as possible. Gentle feeding with liquid manure is very beneficial, while soot-water, used in a clear state, deepens the colour.

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THE KITCHEN GARDEN

SOME GOOD WINTER VEGETABLES.

THE classes for vegetables at the early December meeting of the Royal Horticultural Society brought out some splendid exhibits, and though the competition was not large, those staged were remarkable for their quality. As a lover of good vegetables I am pleased to note that mere size does not now find so much favour as formerly. This is a step in the right direction, and one which THE GARDEN has brought prominently before its readers. With so many good vegetables to select from, there is no need for coarseness; there is, indeed, a loss, as in their preparation much waste occurs. I specially noted the splendid roots of Beet; here Cheltenham Green Top was superb in the premier exhibit, and it demonstrated how this root could be grown, as to get it in such perfect condition requires care in culture.

Brussels Sprouts were another object-lesson. I was pleased to note the great advance from the huge growths to those staged, which were of a close, compact build, with small or medium, bullet-like Sprouts of the best quality, and I noted that the excellent Dwarf Gem was the favourite Sprout, both in the plants as grown and the gathered Sprouts shown on dishes. The other variety of this vegetable staged was Exhibition, which is larger that Dwarf Gem, but by no means coarse, and an ideal vegetable.

I expected to see much better competition in the Celery class, as though the season has been a trying one for growers, it has been good for Celery as regards moisture, and the class should have found more favour. At the Colchester Show early in November there was enormous quantities of this vegetable, whereas at Westminster there was only one exhibitor, who staged Solid White in splendid condition. In the pink or red class Superb Pink and the old but excellent Standard Bearer were shown.

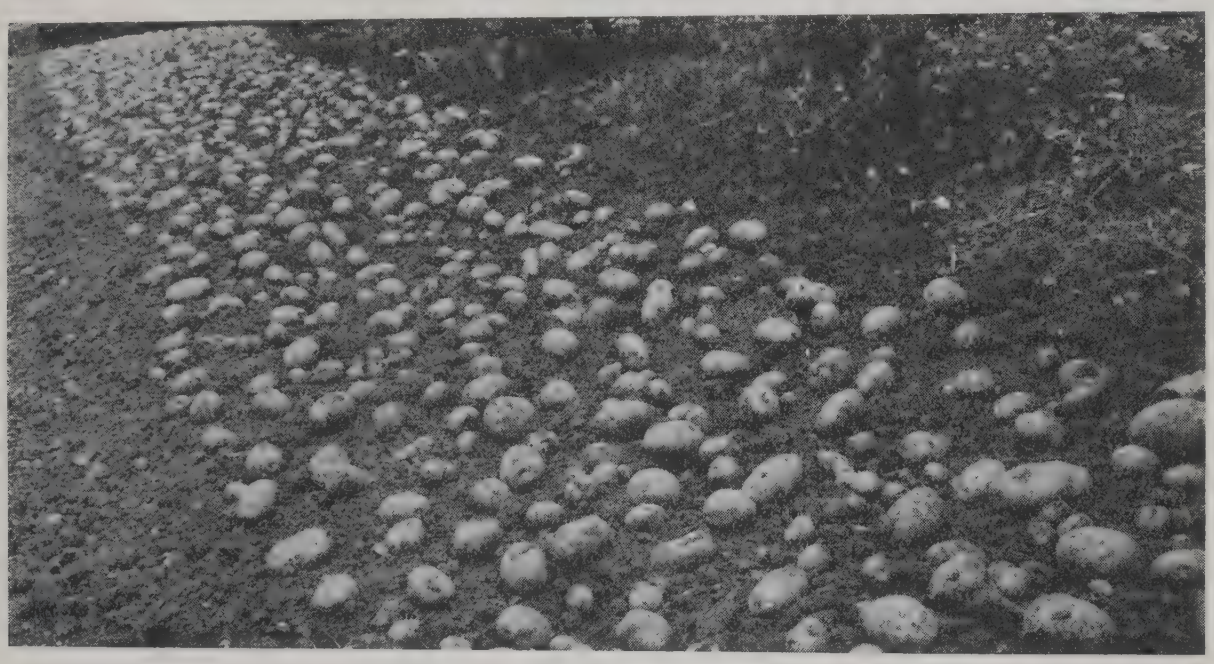
We do not in this country appear to make much headway with winter salads. I admit, as regards frame culture in the spring, we have made great progress, but there was only one exhibit staged in the class for two varieties of Endive, where there should have been good competition. Endive is not difficult to grow by any means, and now, with so much glass at command, there should be a wealth of material at this season. The other exhibits were Carrots and Savoys. The roots staged were perfect and by no means coarse, and the same remarks apply to the Savoy Cabbages.

G. WYTHES.

POTATO SNOWDROP.

AMONG the many Potatoes that were great favourites a decade or so ago was the second early white kidney variety known as Snowdrop. It was at that time a reliable cropper, and was not generally so badly attacked by disease as some others. With the introduction of many new varieties Snowdrop has had to take a second or third position, and probably in a few years' time it will scarcely be grown at all. This passing of favourite Potatoes manifests in an unmistakable manner the survival of the fittest, and is not to be wondered at seeing that the method of reproduction adopted is a vegetative and not a generative one. Sooner or later the stamina must go, and this accounts for varieties that could at one time be relied upon to give good crops and resist disease gradually dying out.

I do not believe that many of the new varieties now introduced are any better than some of the older sorts were at the time they were put into commerce, only the older ones have deteriorated and the new varieties are better than they are at the present time. Occasionally, as in the case of Up-to-Date, we get a variety that is so vigorous and coarse when first raised that it is actually improved by cultivation for a few years, its coarse vigour being reduced by deterioration, which in such an instance leads to refinement. I think it would be interesting to hear from readers who now grow such one-time favourites as Early Rose, White Elephant and Magnum Bonum, and to learn the success achieved. That the variety Snowdrop has not yet lost all its vitality is proved by the accompanying illustration, which represents a crop lifted last autumn.



A GOOD CROP OF POTATO SNOWDROP.

PEA WEBB'S NEW MODEL.

THOSE who are looking for a first-class Pea of the second early section will find it in the one named above. Last year I grew in Essex a row some 7 yards long, and it proved to be a Pea of excellent quality and splendid cropping properties. The large pods somewhat resemble Gladstone in shape, and the texture is of a similar smoothness, each being filled with from eight to ten Peas of large size and good green colour. The haulm grows from 3 feet 6 inches to 4 feet high, and with me was covered with pods from within a foot of the ground to the top, these being mostly borne in pairs. A feature of this Pea last summer was the long time it continued to crop, pods being available for picking for six weeks. If this variety maintains the high standard of last season it will become one of the most popular second early sorts that we have.

H.

THE FRUIT GARDEN.

FRUIT NOTES.

DIGGING BETWEEN TREES.—Weeds are apt to become altogether too numerous beneath our fruit trees, and it is imperative to success that they shall be removed. Opinions differ as to the best method of procedure to this end, but there is little doubt that the most expeditious manner is to dig over the entire area, turning in the weeds in the process. Some growers urge that this practice must necessarily damage immense numbers of valuable fibrous roots, but there is at least some doubt as to whether any serious injury results. Many of the upper roots are annual in character, and if they are not torn away in cultivation perish naturally, so that as far as they are concerned no difference can accrue. Of course, if the working were as deep as it would be if one proposed to grow Onions, the permanent roots would undoubtedly suffer and the prospect of prolonged success with the trees would be materially reduced. Apart from this, shallow digging tends to do good and can scarcely do any harm.

AMERICAN BLIGHT.—This is one of the commonest of all the pests on our fruit trees, and no efforts must be spared to effect a perfect clearance, as it does vast injury. During the summer it is attacked by the aid of paraffin and other solutions, or in limited areas by painting the clusters of enemies with sweet oil, while in the winter real good is done towards its extirpation by the thorough washing with caustic soda which all the best cultivators now give. It is, however, absolutely necessary in cases of serious infestation that special attention shall be directed to the roots during the time that the trees are at rest in the winter, for the insects make themselves quite comfortable on the upper layers of roots, and if they are permitted to remain in undisputed possession they will appear plentifully on the branches in the summer. Therefore, the roots should be bared, and if the pests are found, each one should be dressed with a drop of methylated spirits or pure paraffin, which will quickly destroy them. The operation is a little tedious, but it has the merit of being absolutely effectual.

STORED FRUITS.—No opportunity must be lost when there is a little time to spare to examine all the fruit in the store. It is immaterial whether it is in the most efficient of structures or in a room of the dwelling-house; the inspection must be done, and the greater the frequency at this season of the year the better. When once decay sets in and is allowed to proceed in one fruit, the trouble will certainly spread quickly to others, and large numbers may be lost in a comparatively short time. Look them over as often as time can be found, and thus save worry and disappointment.

CURRANTS.—It is important that the pruning of these, assuming that it was not all completed in the autumn, shall be finished as quickly as possible, or the results in the ensuing season will not come up to expectations. Commence with the Black varieties, cutting out old wood first and then such young shoots as cannot be properly accommodated. The object should be to leave the branches so thinly disposed when the work is done that every bud will have the full benefit of light and air. With the Red and White varieties the system is entirely different, since these carry their crops on spurs on the old wood, and the pruning must, therefore, be to the spurs, the young wood being practically all removed. In all cases the extremities of the new shoots will be reduced in length according to the space available for extension. When the amount of room is fully occupied, only 3 inches or so of new wood will be retained each season; but where there is plenty of room, 6 inches, or even more than that, will remain if it is well ripened.

A HYBRID FERN: POLYPODIUM SCHNEIDERI.

PLANTING.—January is not a satisfactory month for planting fruit trees as a general rule, but when they have been heeled in and are waiting for attention the opportunity of spells of suitable weather when the soil is in favourable condition should be seized for getting the work forward. Later on the pressure of various operations will become so great that there will be danger of the planting being rushed through, and this is a thing which never pays with fruit trees. FRUIT-GROWER.

THE GREENHOUSE.

POLYPODIUM SCHNEIDERI.

THIS is an interesting Fern of hybrid origin, a form of Polypodium vulgare and P. aureum being generally considered as its parents. The fronds are curiously cut up into unequal-sized segments, and are crested at the ends. It grows from 1½ feet to 2 feet high, the fronds springing from underground rhizomes. A certain amount of the glaucous colouring seen on P. aureum is noticeable on the fronds, but nothing like so bright as in that species. P. Schneideri grows well in a cool house and forms an excellent room plant. It thrives in the usual compost allotted to Ferns and may be increased by division in spring.

IMPATIENS HOLSTII.

THIS is one of a number of beautiful species of Impatiens which have been introduced from Africa within the last few years. This particular one is found in the vicinity of the eastern shore of Lake Victoria Nyanza, and has been in cultivation about ten years. In habit it is very similar to the old, well-known I. Sultani, and thrives under similar conditions. It, however, differs from that plant by having striped red stems and scarlet flowers. The flowers are also rather larger than those of I. Sultani, the largest ones being 1⅞ inches across. It grows between 2 feet and 3 feet in height and forms a shapely bush 1½ feet to 2 feet or more through. In the hands of the hybridist it has proved useful, for hybrids showing a great range of colour have been raised. Cuttings root readily at almost any time if placed in a warm propagating-case, and the plants may be grown on rapidly in a compost made up of two parts loam, one part leaf-mould and half a part sand. K.

BOUGAINVILLEAS AND THEIR CULTURE.

THE amateur who is able to maintain a temperature of 48° to 55° in his greenhouse during the winter months can grow the Bougainvillea to perfection; indeed, I am quite certain that many amateur gardeners (and some professional gardeners, too) entertain erroneous ideas as to the right treatment of this most beautiful and tropical-looking plant.

I have found many specimens growing in plant stoves—houses in which an average temperature of about 68° is maintained—that could not be compared with those cultivated in a warm greenhouse for excellence of foliage and flower. In the hot, close atmosphere of the plant stove the leaves were small and delicate, and the flowers equally so and very pale in colour. In the greenhouse the leaves are large, thick and leathery, and the flowers are also extra large and very richly coloured. I have grown flowers of B. glabra that have been so highly coloured as to be mistaken for those of that darker-coloured variety B. speciosa, often called spectabilis. Both varieties, B. glabra and B. spectabilis, should be grown in the greenhouse.

In the South of France the Bougainvillea grows on the walls of some of the cottages, I am told, and the colour of the flowers is very deep. In Morocco the plants are also grown in the open air; a bloom brought from Morocco and given to me was of a most beautiful colour. I carried it in my pocket-book for about eight years, and at the end of that time the colour was almost as rich as when I placed the flower there. Of course, plants can be grown in large pots or tubs and used as sub-tropical bedding plants in our flower gardens in summer-time, but both leaves and flowers are very small. The same results follow such a method of cultivation in a greenhouse. The most satisfactory way of treating these plants in the greenhouse is to make permanent borders for them either at one end of the structure or under the stage. I have so grown them and had the plants in flower for nearly five months, the average length of the flower-sprays being 3 feet 6 inches; many of them measured 5 feet in length.

The border should be 3 feet wide and 20 inches deep. Use fibrous loam and old mortar rubble only, one bushel of the latter to four of the former. Surface dressings of manure and feeding must be given while the plants are growing freely.

The plants must be trained under the roof glass like a Grape Vine. The present is a good time for planting a strong specimen. When the flowers have faded the side shoots must be cut back to within 15 inches of the main rod. This work will be done in November. In February the remainder of the side shoots must be cut hard back in the same way that a Grape Vine is pruned. In due time new shoots will grow strongly and flower freely. Lessen the water supply to the roots in the autumn, and only give one or two waterings in the winter. When new shoots grow, water freely, and especially so in the summer. The shoots, depending gracefully from the roof, have quite a tropical appearance. B.

THE ROSE GARDEN.

PLANTING ROSES UNDER GLASS.

A WELL-GROWN Rose tree in a greenhouse or conservatory affords the owner a vast amount of pleasure. It is quite a mistake, made by many lovers of the Rose, to apply a lot of heat to a plant grown under glass. Heat will cause rapid growth undoubtedly, but the shoots do not bear flowers of a satisfactory character freely.

Too often the Roses are grown under the hottest portion of the roof, and then the only time of the year when really good blooms are obtained is in the early part of the spring. True, fresh blooms are most welcome then, but they can be grown equally well, if not better, at that period on plants trained under a cooler part of the roof glass. Those plants trained under the hottest portion of the roof do not, as a rule, bear many good flowers again until the early part of the autumn; but the plants growing in the naturally cooler portion of the structure give a good supply of flowers in the summer-time as well as again in the autumn.

I have seen Rose trees that were trained under glass roofs with a direct south aspect nearly stripped of all their leaves at midsummer. They

A GOOD GREENHOUSE PLANT: IMPATIENS HOLSTII.

had been eaten away by red spider and thrips. Of course, there are many amateurs who are obliged to train the branches under glass roofs facing the south, on account of lack of other positions. In such circumstances it is a wise plan to train the shoots quite 2 feet away from the glass if possible, as then the foliage can be maintained in a healthier condition.

Tea and Hybrid Tea Roses are the most satisfactory for growing under glass, and these thrive best in a somewhat lighter soil mixture than that suitable for Hybrid Perpetuals. A good body must be provided in such soil, however, and sweet fibrous loam is the best for this purpose. The border need not be a very deep one; indeed, a somewhat shallow border is the most satisfactory, on account of its cold position under the stage, or beneath the floor of the house. Thorough drainage is essential. Fibrous loam, leaf-soil, road-drift and a small quantity of old mortar rubble form the best compost. If road-drift cannot be procured, substitute sand. The present is a good time to put in the plants, and they should not be unduly subjected to artificial heat; if frosts are kept out of the house the plants will do well. The following are grand varieties to grow: Climbing Niphetos, pure white; Climbing Perle des Jardins, pale yellow; Maréchal Niel, golden yellow; Mme. Berard, fawn, lovely leaves; L'Ideal, metallic red and yellow; Belle Lyonnaise, canary yellow, tinted salmon; Cheshunt Hybrid, cherry carmine; Climbing Belle Siebrecht, imperial pink; and Reine Marie Henriette, red cerise. B.

ROSES FOR UNSIGHTLY CORNERS.

Now that the time of felling trees is here, I would recommend all who are able to secure some of the root stumps to place such in a mound in any corner of the garden where one would desire to have a pretty screen to any building or other object. Before the root stumps are set up the ground should be deeply trenched and well manured; then range the roots in such a fashion as taste may dictate. The larger the stumps are the better, for they can then withstand any gales that arise. In the spring of 1909 I arranged some roots that were so large that it took three or four men to move them. Four of these made a fine conical block, and against these we planted four Roses. Whether one plants all one variety or a number of sorts to bloom simultaneously or at different periods is also a matter of individual taste. Personally I prefer one sort. What could be more lovely than a mound of such Roses as Hiawatha, Dorothy Perkins, Goldfinch, Coquina and René André? Obtain plants on their own roots, and do not prune them at all for the first two or three years. Even in one year they will nearly cover the blocks, and in many cases long growths push out from the base that will cover many square feet of surface if allowed to do so. I can imagine some such mounds in open spaces in woods and game coverts, or in dells in the vicinity of the rock garden. A few mounds even in the park, surrounded by iron palings to protect them from cattle, would be a charming feature of any estate, and many of the varieties can display themselves much better rambling upward like they would do than when struggling through grass and weeds. Wherever they are located two details should be kept in mind. In the first place, see that the plants have a good deep root-run, and in a spot where they can receive a fair amount of sunshine when we get it; and in the second, secure the plants on their own roots. Then there will be no fear of suckers. P.

THE FLOWER GARDEN.

YUCCA RECURVIFOLIA.

YUCCAS are effective in all gardens on account of their attractive habit, either for their foliage alone or for the handsome inflorescences of greenish white flowers which they produce. They are most striking when planted in large groups, although they are usually seen dotted about singly in all sorts of places. They are seen at their best when planted so that they have a natural background of foliage to show off their graceful if rigid flower-spikes. The two most generally grown Yuccas are Y. gloriosa and Y. recurvifolia. The former has rigid leaves, 2 feet to 3 feet long, armed with a stiff, spiny point, and bears large panicles of white flowers tinged with purple. The latter is somewhat more elegant in habit, on account of the arching or pendulous tips of the older leaves. The leaves are often 3 feet or more in length, while the stems reach to a height of 5 feet or more.

A STATELY HARDY PLANT: YUCCA RECURVIFOLIA.

The plants do not seem at all particular in their requirements, as any loamy soil of a light nature agrees with them, while they will grow in heavier soil if it is well drained. They enjoy a warm, sunny place in a sheltered position, and while they are perfectly hardy, they are often damaged by snow or excessive moisture settling in the crowns in winter. This causes the growing points to rot, and sometimes the whole plant, if not strongly staked, will be broken down by the weight of snow. They can be readily propagated by cutting up the fleshy roots into short pieces. These should be placed in a mild bottom-heat, when they will soon make nice plants. W. IRVING.

POLYANTHUSES FROM SEED *VERSUS* DIVISION.

OPINIONS differ considerably on this point, but let anyone think for a moment of the way Nature keeps up its stock, and they should be convinced of the advantage that seed has over division. Seldom does anything become more robust by artificial treatment in any way, and this rule holds good with these plants. In a natural state there is no one to lift and divide them, and but seldom does one meet with weak plants grown thus.

In the West Country, where the common Cowslip and Primrose abound, I have frequently observed what vigour these have compared to those which have been transplanted to gardens and subjected to division and coddling.

During my long experience in cultivating and raising Polyanthuses, I have often met with cultivators who believed in division, but I have never seen plants obtained by this method having the constitution possessed by those raised from seed. I am aware that under some special circumstances it may be advisable to divide, and I have often tried this when having an extra good variety, but I have always found that the vigour could only be retained by resorting to seed.

During the past autumn I have had many thousands of plants of all ages replanted, and what has impressed me most is how they weaken after the third year. Another thing noticeable is how these aged plants have a tendency to root up the stems of the crowns. This is probably due to leaves, sand and other soil getting into and among them and rotting.

Some may say that they cannot be relied on to come true from seed. Strictly this is correct, but I have proved that they reproduce with a very small percentage not true to parentage when proper care has been taken in securing the seed. If wanted for beds it is a simple matter to raise them from seed, selecting them to colour the first season. Personally I see no disadvantage to a variedness in height, provided they are true to colour, unless the grower is fastidious and requires them on the carpet bedding lines. Naturally they do not grow in this way.

Another advantage seedlings possess is that one often obtains a new shade of colour, and there is much interest in watching a few hundred seedlings for any new feature they may develop. The raising of seedlings is a simple matter. Sown in autumn the seed germinates at once. Both autumn and spring sowings have their own merits. I have found that they may be sown from September till the end of April and bloom the next season. So many fail to obtain good results by allowing the seed to get dry when germination has begun, or by allowing it to float on the water when first sown and thus remain on the top of the soil. Others fail through covering the seed too deeply. J. CROOK.

TUFTED PANSIES IN THE ROCK GARDEN.

FOR years the Tufted Pansies (Violas) have been used extensively in the hardy flower garden, but all too frequently simply as an edging to large beds and borders. I am glad the practice is falling into disuse of planting the Tufted Pansies in the autumn with the object of lifting them in the succeeding early summer after they have provided a display of their beautiful blossoms throughout the spring season. It is just at this time, and for a few months longer, that these

plants are at their best, and I fail to see the wisdom of lifting them in order to make room for less interesting tender plants. For this reason, too, I welcome the planting of these Tufted Pansies in the rock garden. Here they seem to luxuriate, the rocks and stones used in the formation of these gardens affording shelter from the extreme heat of the sun in the summer and at the same time ensuring a cool and moist root-run, two essentials in the successful cultivation of these Pansies. The rock garden, by the use of Tufted Pansies, is made interesting for a much longer period than is usual, and if the plants are gone over periodically, and spent blossoms and seed-pods removed, they will retain their freshness and beauty for a long time. D. B. CRANE.

TREES AND SHRUBS.

EVERGREEN SHRUBS FOR SMALL GARDENS.

THE effect produced by the judicious planting of evergreen shrubs is at no time more noticeable than during the winter months. Many owners of small gardens might extend the planting of such shrubs, thereby adding interesting features at this season. In many gardens there are bare places where vain endeavours have been made to establish flowering plants or turf. In many of these places the planting of a few evergreen shrubs would overcome the difficulty, by producing a permanent and pleasing finish in place of what has been an eyesore and a source of annoyance.

Space does not permit me giving a long list of suitable plants, but the following may generally be relied upon both for hardiness and effect. Readers of THE GARDEN may frequently find many evergreens described therein suitable for planting in various positions. Many naturally tall-growing plants may be kept in check by careful pruning where the space at their command is inadequate for their full development. Before planting the ground should be prepared by deep digging or trenching, and if the soil is clayey, leaf-soil, road-sand, &c., should be incorporated with it and some light soil placed around the roots when planting.

Aucuba.—The familiar mottled-leaved variety, A. japonica, is well known, but deserves mention here, as it is an accommodating plant, thriving in partial shade under trees, &c., and succeeds in town gardens. There are also green-leaved sorts, and where space permits and a collection of the male and female forms are grouped together, the latter will produce a quantity of large scarlet, oblong berries.

Berberis Aquifolium and its dwarf form, B. repens, are most useful; the glossy foliage of the latter turns to a reddish purple colour in winter. This plant succeeds well under the shade of trees. Several varieties of Box (Buxus), including the gold and silver striped forms, are very ornamental.

Euonymus japonicus is one of the most popular plants for town gardens. There are numerous variegated varieties, including white and yellow variegations, also some tinted with red.

Gaultheria procumbens and G. Shallon are worthy of more extended cultivation. The former is a diminutive plant 4 inches to 6 inches high, producing red berries, which seldom drop until the spring. G. Shallon grows from 2 feet to 3 feet high, is suitable for planting in shady positions and produces purple berries. These plants succeed in a sandy loam or peaty soil.

Hollies rank among the most useful of evergreens. There are numerous varieties with deep green or variegated leaves. The red berries of the Holly are familiar to all, and there are also varieties with bright yellow berries. Hollies should be planted in April or May in well-prepared soil. The golden form of Ligustrum ovalifolium,

Golden Privet, is very bright during the winter; it is not fastidious as to soil, but should be given a light position. The plant takes a vast amount of food from the soil, and for this reason should not be planted too near choicer shrubs or the better-class herbaceous plants. The

Butcher's Broom (Ruscus aculeatus) is a suitable dwarf shrub for covering bare spaces under trees, and grows well in town gardens.

Skimmia japonica is a pretty little shrub, especially when covered with its bright scarlet berries.

Viburnum Tinus or Laurustinus is a most valuable winter-flowering evergreen shrub, flourishing in various soils, preferably those that are rather sandy or otherwise well drained.

Vincas (Periwinkles) are low trailing plants of a shrubby character for edging groups of larger subjects; they also thrive well in shady places. There are white and yellow variegated forms, which are excellent for growing in tubs with taller-growing evergreens for decoration during the winter months. COLIN RUSE.

TUFTED PANSIES OR VIOLAS IN THE ROCK GARDEN.

THE HARDY HEATHS.

THE Heaths are most beautiful small-growing shrubs and may be had in bloom practically the whole year; yet how seldom one sees a Heath border in any garden. Although peat-loving plants, they will grow and do well in any good common garden soil to which a little leaf-mould has been added. They should be planted in groups in autumn or early spring in an open place exposed to the sun. The Heaths all flower very freely, and the flowers remain a long time on the plants. They are easily increased, either by layering or pulling to pieces and planting immediately. There are a great many varieties, but a fairly representative collection might be got together by selecting thirty or forty different sorts, and the cost would not run into more than an average of 8d. or 9d. each. To those who are uninitiated in the culture of Heaths and who desire to begin a collection, I would suggest the following as likely to please and give satisfaction: Erica arborea (Tree Heath), white-flowered; E. codonodes, a Tree Heath covered with white flowers, slightly tinged with pink; E. carnea, pink flowers; E. ciliaris, dwarf, crimson, 1 foot; E. cinerea (purple), E. c. alba, E. c. atrosanguinea, E. c. pallida, E. c. rosea, E. c. rubra, all 9 inches; E. c. spicata, 1 foot; E. mediterranea hybrida, E. m. alba, E. m. carnea, E. m. rubra, E. maweana, E. vulgaris, E. alba, E. Alportii, E. argentea, E. aurea, E. decumbens, E. Hammondii, E. pilosa, E. pygmea and St. Dabeoc's Heath, white and purple.

Morelands, Duns. JOHN MCWATT.

ESTABLISHING THE CLEMATIS IN THE OPEN GROUND.

THE Clematis, whether grown as a pot plant or in the open border, is very beautiful. But not a few would-be growers find, I believe, as we have done, a difficulty in establishing the plants out of doors, especially where the locality is excessively damp or unusually cold. The following practical hint, which has been of service to us, may, therefore, be helpful to readers of THE GARDEN who desire a more sure way of success. Prepare the place in the usual way by making the soil rich and incorporating mortar rubble; then make the hole for planting a little way (say, 6 inches) to the left or right of the spot where the plant is really required to grow up. Next make a little trench and bend down into it the stem of the Clematis, burying it several inches under ground and causing it to rise again at the required place. In burying the stem use sandy soil, and make it firm. A little patience, and in due time a splendid lot of roots will be emitted from the covered stem, thus giving the Clematis an added source of vitality.

Highgate. C. T.

GARDENING FOR BEGINNERS.

PLANTING AND INCREASING THE IVY.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—Those beginners in gardening who invest in a frame will naturally wish to make the fullest use of it, and to do so at this season it is essential to form a good hot-bed on which to place it. The materials for making the hot-bed should now be got together, the best undoubtedly being one-half long strawy and fresh stable manure, and the other half freshly gathered and unfermented leaves. Many, however, cannot procure leaves in this condition, and must, perforce, rely on manure of the kind mentioned above. It will be necessary to secure enough to form a solid mass 2 feet thick at the top end and 1 foot wider each way than the frame, and before being made up into the bed it should be thoroughly turned and shaken up every other day for a week or ten days. In making the bed form a good slope towards the south, so as to catch as much sun as possible, and tread the whole firm as the work proceeds. After placing the frame in position, a few inches of finely sifted soil may be placed over the manure, and in a few days should be fit for sowing or the standing in of seed-boxes.

Flower Garden.—Where Christmas Roses are grown they will now be throwing up their beautiful wax-like white flowers, and steps must be taken, if not already done, to protect them from bad weather and the ravages of slugs. A hand-light or bell-glass placed over the plants will keep off rain, fog and sooty matter, which do so much to despoil the beauty of the flowers; but slugs are more difficult to deal with. I have found that Kilogrub sprinkled round the bases of the flower and leaf stems is a good deterrent and, moreover, a simple one. Another hardy plant that gives us its blossoms outdoors at this season is the fragrant Iris stylosa. Sparrows are very fond of plucking these blossoms; hence some means must be taken to stop the mischief. A piece of fine fish or wire netting fixed over the plant or plants answers very well, or some strands of black cotton secured to sticks inserted

1.—A GOLDEN VARIEGATED FORM OF THE TREE IVY (HEDERA ARBORESCENS).

round the clumps will do. At this season flowers of any kind are too scarce to lose. Where young border Carnations are being left outdoors all the winter, it is a good plan to protect them slightly during very severe weather by sticking sprays of evergreens among and around them, there usually being some available from the Christmas decorations at this season.

Fruit Garden.—Many amateurs make a point of growing a tree or two of Morello Cherries, particularly where a north wall is available, as this is one of the fruits which do well in such a position. We must not, however, think that a north wall is essential, as this fruit will do quite well when grown in bush form in the open. Where pruning has not been done, this should be attended to at once. Before commencing the work it will be well to remember that the fruits are borne only on wood that was formed last year; hence it will be seen that these are the shoots to retain as far as possible. Pruning, therefore, will consist of cutting out sufficient two years or more old shoots to make room for the young ones. In the case of wall trees the latter may be nailed into position as soon as pruning is finished, 6 inches apart being a good distance to allow for the shoots that are retained, leaving these nearly or quite their full length. Of course, it will be necessary to remove some young ones, and the weakest and most unripe ones should be taken away.

Plants in Rooms.—At this season we may expect very severe frosts, and good specimen plants used for decorating rooms are frequently forgotten, with the result that they get frozen and thereby killed. Where they are in rooms in which fires are burning every day, there is not likely to be much injury from this cause; but many plants are kept in rooms or halls where fires are seldom lighted. It is these latter plants that the owner must remember on frosty nights and take them to a warmer place. A little thought and labour in this respect will save many valuable and treasured specimens. It is essential more now than perhaps at any time of the year that the foliage of all plants in rooms be kept in a perfectly clean condition, as the days are dull and short, and all the sunlight possible must be allowed free access to the leaves. The importance of this cannot be over-estimated, and to keep the plants in a healthy condition they should be sponged or syringed with warm water once a week and kept as near the light as possible. Do not place them in dark corners and there leave them for days together, as therein lies failure.

A. A.

PLANTING AND PROPAGATING THE IVIES.

THE Ivy is probably better known to most beginners in gardening matters than almost any other subject, and yet comparatively little may be understood regarding the method of dealing with the plants and the wealth of material available in the many varieties that are catalogued by nurserymen. The Ivy is known to botanists by the name of Hedera, and is a popular genus of evergreen shrubby or climbing plants; it belongs to the Aralia family (Araliaceæ). In our British climate the number of hardy evergreen climbing plants is not large, and for this reason the Ivy has an especial value. No other subject will compare with it for covering bare walls or fences and many other unsightly erections. It is in the winter season, when so many trees and shrubs are leafless, that the Ivy asserts its real value. The small-leaved Ivies, of which there are many varieties, are very useful for growing among rockwork; and they are also especially well adapted for training over the roots of large trees. A northern aspect suits these small-leaved varieties, where they look very pretty and harmonise satisfactorily with Ferns and similar subjects.

Ivy as an edging is more frequently used now than was the case formerly. Contrasted with the glorious colours of masses of gay flowers in the summer season the effect is beautiful, and is much to be preferred to the many artificial creations, such as tiles, frequently used for the same purpose. A live margin of Ivy some 12 inches to 2 feet in width may be made into a dense fringe if the plants are properly treated. They should be arranged in rows, and the growths pegged down in one direction only as soon as planted. To keep the growths from getting overgrown and uncontrolled, the young shoots should be pinched

2.—A GREEN-LEAVED FORM OF THE TREE IVY. USEFUL FOR PLUNGING IN FLOWER-BEDS DURING THE WINTER MONTHS.

or cut back two or three times, according to the vigour of the plants, every summer.

In addition to the many beautiful forms of the evergreen climbing Ivies, there are varieties of the Tree Ivies that are little known. The Tree Ivies are known to the botanist by the name of Hedera arborescens, and are of a non-climbing habit. In Figs. 1 and 2 two examples of the Tree Ivies are shown, and it will be noticed that they are bushes or low standards. They have a special value in the winter season, as they can be lifted if grown in pots and replanted to fill vacant flower-beds. If the plants are to retain their bushy and compact form, they must be grown continuously in pots. The soil for these Tree Ivies should comprise two parts of loam, one part of leaf-mould or decayed manure, and coarse sand in sufficient quantity to make the compost porous. See that the pots are well drained. Potting may be done at any time between October and March. In April the plants should be pruned into shapely specimens. During the growing period water freely, and in the summer established plants in pots will derive considerable benefit from periodical applications of manure-water.

With respect to the planting of the evergreen climbing Ivies, the numerous forms of which have originated from the one species, Hedera Helix, a native plant of Britain and other parts of Europe, objection is sometimes taken to the growth of this subject on the walls of dwellings, on the alleged ground that it makes them damp and for other reasons. A moment's reflection will refute such an idea. As a matter of fact it has just the opposite effect. Moisture is drawn off by the aerial rootlets which adhere to the wall, and the leaves throw off the rain. When planting it is important to remember that the Ivy does not take kindly to cemented walls, and unless special measures can be adopted to erect a trellis or something of this kind, it may be courting failure to plant in such positions.

Ivy may be planted at any time between September and November and February to April inclusive. When planting it is better to purchase plants in pots, as the roots suffer less from

disturbance. Should the soil in the pots be rather dry on arrival of the plants, give them a good watering before planting. Fig. 3 represents a small Ivy recently planted for covering a wall. Where it is intended to plant Ivy against walls, the ground should be trenched fully 2 feet to 3 feet square, working in a plentiful supply of well-rotted manure, and if a quantity of old mortar rubbish can be incorporated so much the better, as Ivy revels in soil of a limy nature. It is well to remember, however, that rich soil causes the variegation to lose much of its beauty and the leaves ultimately to assume a green colour. For this reason plant the variegated sorts in poor soil.

The various forms of the hardy evergreen climbing Ivies may be propagated by cuttings outdoors, those made from firm shoots 8 inches to a foot in length answering very well. Fig. 4 shows a shoot suitable for making into a cutting, and a cutting properly prepared and ready for insertion. Note how the lower half of the leaves have been removed and the stem cut through immediately below a joint. These cuttings should be inserted in ordinary sandy soil, half their length, in small trenches of sufficient depth, and the soil made firm at their base before levelling off and finishing the operation. A border under a north wall, or a similar position, should be selected, and the propagation be done at any time between September and November, and later when the weather is not very frosty. By these means plants may be raised with the greatest ease.

Good sorts to grow are Hedera Helix canariensis (the Irish Ivy), a very reliable variety, suitable for covering fences, walls and bare, unsightly places; H. digitata, dark green, varied with white, equally good for walls, &c.; H. dentata; H. purpurea, purplish; H. rœgneriana (the Giant Ivy), large heart-shaped leaves, suitable for arches, pergolas, tree trunks and walls;

3.—A RECENTLY PLANTED IVY FOR COVERING A WALL. NOTE HOW THE GROWTHS ARE SECURED TO THE WALL BY SHREDS AND NAILS.

H. canariensis aureo-maculata, green and gold; H. marginata, leaves green, edged creamy white; H. Silver Queen, margined and splashed ivory white; H. tricolor, green leaves, margined and splashed cream; H. maderensis variegata, beautifully variegated and suitable only for warm positions, like most of the variegated varieties; the extremely hardy and beautiful H. caenwoodiana, with deeply lobed leaves of medium size, dark green; and many others. D. B. C.

HOW TO PRUNE YOUNG AND OLD VINES.

THE actual work of pruning a Vine is a very simple matter when the workman knows exactly how to do it. Many Vines, otherwise well treated, are partially ruined every year through bad pruning. Now, I will take young Vines first, those planted this winter. The canes may be 7 feet or 8 feet long, but they must be cut back to within 2 feet of the soil level at least. Then three new shoots must be retained for the future growth, namely, one shoot on each side of the cane and a leading shoot. If Vines planted one year are to be pruned, the leading cane must be cut back to within 18 inches of its base, that is, of the current year's growth. There will be side shoots, or laterals, on these Vines, and every care must be taken to avoid over-crowding. Cut back the side shoots to two eyes, or buds. Each side lateral should be about 18 inches apart on both sides of the main rod.

When dealing with old-established Vines, cut the side shoots back to a plump bud; it is wise to leave two buds to grow, and then, later on, to disbud and only retain one new shoot—the strongest. It is a mistake to leave more than one lateral to a spur. If the Vines possess very long spurs, the flow of sap will be obstructed; so it is a wise plan in such cases to train up gradually a young cane from the base of the old Vine and to remove the side shoots from the old spurs upwards as the young cane grows. Thus, the young cane will be 18 inches long when pruned, and the two lower spurs on the old cane must be wholly disbudded. The next year the young cane will be 3 feet long, and more old spurs must be disbudded, and so on until the young cane takes the place of the old one, which must be entirely cut back. SHAMROCK.

THE TOWN GARDEN.

BULB BARGAINS.—The closing of the bulb season each year affords a good opportunity to a large number of securing many good and choice kinds at greatly reduced prices—prices often enough out of all proportion to those at which they were offered a few months previously. That these late-planted bulbs do not, and cannot be expected to, equal those which were planted in due season goes, I think, without saying. Yet they are of a sufficiently good and meritorious character to warrant their being planted with a free hand. The cheap rates, too, at which such things are offered by British firms should tempt many to purchase who have not yet done so, or even to encourage those who may have planted earlier in the season to further indulge their hobby or their tastes, and endeavour in this way to brighten the old corners of the garden, the border or the shrubbery. To those who would like to engage in wild gardening on a small scale—that is, the planting in any free and informal manner plants of a bulbous nature in the forefront of the shrubbery border—these cheap offers of bulbs permit of the work being done at small cost; and many varieties of Narcissi and Tulips may be thus introduced to provide a succession to others planted at an earlier date. The mistake usually made is the planting of these late batches much too near the surface, and thereby exciting them to grow before they are sufficiently rooted to warrant success. Without a doubt, one of the best possible of such investments would be a free planting of the

DARWIN TULIPS, for not only do these provide a late display of flowers of a unique character, but they suffer considerably less through having been kept so long in the dry state. To those who require quantities of flowers of the boldest description nothing can equal the group of Tulips I have in mind, and, indeed, I have been rewarded with blossoms as the outcome of these late plantings but little inferior to those planted at a more seasonable time. It is important that the bulbs be planted quite 6 inches deep, and the soil given a soaking of water at the planting level should it be at all dry.

ANEMONES.—Any of the tuberous-rooted Anemones may now be planted with every hope of success, and an even greater measure of success than in those instances where the earliest-planted, having quickly produced top growth, have had this cut down by severe frosts. Brilliant patches of Anemone fulgens in any of its forms have no equal among the garden flowers of early spring, and those who indulge in such are not likely to overlook them in the years to come. The condition of the tubers when in the dry state is apt

4.—CUTTINGS OF THE EVERGREEN IVY. THAT ON THE LEFT IS THE KIND OF SHOOT FROM WHICH CUTTINGS ARE MADE, AND THAT ON THE RIGHT IS A CUTTING PROPERLY PREPARED AND READY FOR PLANTING.

to deceive, seeing that they are reduced to about one-half of their normal size. In planting, therefore, see that the tubers or dry roots are kept at least 6 inches apart each way, and by forming patches of 18 inches or 24 inches across a most brilliant effect will be secured. These plants delight in rich, moist soils, and such as these with drainage secure are calculated to give the best results at flowering time. All the forms of the Crown and Poppy Anemone may be similarly treated, and will afford a rich display of blossoms.

EARLY SWEET PEAS.—The earliest batches of these intended for planting out later on, that are now in pots in cold frames, should not be forgotten in the event of severe weather setting in. A very light covering of mats will usually suffice as a protection, and even this is not necessary where the frame has been built against the south side of the greenhouse. During hard weather the soil should be kept moderately dry and every advantage taken of milder weather to ventilate the frames, in this way adding strength to the plants. Occasionally, when hard pressed, mice will attack the tops of the plants, eating them off at the soil and carrying them away for nest-building or for food. A few traps and a watchful eye at such a time will often prevent a good deal of loss and disappointment.

CURRANT MITE.—It is said, and not without truth perhaps, that there is no cure for the mite which is responsible for the big bud on the Black Currants, and which of late has played such terrible havoc with this most important bush fruit crop of the garden. At the same time there is a simple, if only a partial, remedy that is within the reach of all, and for this reason is worthy of trial. The remedy in question consists of sulphur and lime, 2lb. of the latter and 1lb. of the former, well mixed together and dusted over the branches of the trees at a time when these are in a moist condition and capable of retaining a fair proportion of the mixture. A few weeks hence it may be advisable to repeat the operation with a view to reduce the pest if possible and secure a fair harvest of fruit. That the above dressing applied early in autumn and again in winter and in early spring has considerably improved matters I know full well, and on the principle of half a loaf being better than no bread the matter is worth pursuing yet further. E. H. JENKINS.

NEW PLANTS.

CYPRIPEDIUM ALABASTER MAGNIFICUM.—A large flower of unusual colour. The dorsal sepal is white, flaked rosy mauve, and the labellum and petals are a sort of mixture of rosy mauve and bronze, the margins having a dull golden tint. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucester. Award of merit.

Cypripedium × *Mrs. F. Sander.*—A beautiful flower with white and green dorsal sepal, golden labellum and yellowish petals, the whole forming a striking combination.

Dendrobium Phalænopsis schröderiana album Sander's variety.—A very beautiful flower, and much more graceful than its ponderous and useless name suggests. The flowers are of splendid substance and pure glistening white, being placed well upon the stem. Both the above came from Messrs. Sander and Son, St. Albans, and each received a first-class certificate.

Odontioda keighleyensis Fowler's variety.—A very well-coloured member of this bigeneric race, the medium-sized flowers being very rich glowing scarlet, a prominent blotch of bright gold on the labellum contrasting well with the background. Shown by J. Gurney Fowler, Esq. First-class certificate.

Lælio-Cattleya Firminii.—A large flower, the principal colour of which may be described as a mixture of fawn, orange and dull scarlet. The large labellum is beautifully waved, the most prominent part being rich crimson streaked with gold, the latter colour predominating in the throat. Shown by M. Firmin Lambeau, Brussels. First-class certificate.

Zygo-Colax Charlesworthii rubida.—The flowers of this are the usual size and shape, the labellum being a beautiful rich violet colour, the other segments being green with deep brown bands. Shown by Messrs. Charlesworth and Co., Haywards Heath. First-class certificate.

All the above were shown before the Orchid committee of the Royal Horticultural Society on the 21st ult., when the awards were made.

THE EDITOR'S TABLE

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

LATE CHRYSANTHEMUMS FROM ONGAR.

Mr. W. Hasler, The Gardens, Blake Hall, Ongar, Essex, sends some good blooms of a bronze single Chrysanthemum, which are most welcome at this season. We think the variety is an unnamed seedling. Mr. Hasler writes: "I am sending you a few single Chrysanthemums for your table. I do not know the name, but perhaps you can tell me what it is. I have ten plants in full flower. They grow about 4 feet high and are free-flowering. The cuttings were rooted in March."

CHRYSANTHEMUMS FROM SWANLEY.

Mr. F. Pestifield, 6, Tyler's Green Cottages, Crockenhill, Swanley, Kent, sends flowers of two single Chrysanthemums. He writes: "I am sending a few side flowers of two single Chrysanthemums. The terra-cotta one is Miss Mabel Bath, and the white, Constance. They are vigorous and very free. I showed them at Essex Hall recently, but was not fortunate enough to get an award. I was pleased to see your report of the variety Kathleen May in a recent issue of THE GARDEN, as it is one of my seedlings and is a beauty."

MUSHROOMS FROM IRELAND.

Mr. J. Laverty, Sion Navan, County Meath, sends some Mushrooms of good, usable size and splendid quality for the time of year. He writes under date of December 28: "I am sending a few Mushrooms as a sample of a bed I have at present in full bearing. They are grown in a disused cow-shed without any heat, and during the last hard frost the thermometer registered as low as 42°. The bed was spawned on November 11, and the first dish was gathered on December 15. I purchased the spawn from Messrs. Dickson and Sons, Dawson Street, Dublin, the variety being Baker's Milltrack. I have been growing Mushrooms for a long time, sometimes paying a very high price for the spawn; but this I consider the finest of any I have ever grown, being very quick in action and a great cropper."

BEGONIA PATRIE FROM SURREY.

Mr. Arthur Young, Oxted Nursery, Oxted, Surrey, sends two plants in 3-inch pots of the charming winter-flowering Begonia Patrie, the pink blossoms of which are very pleasing at this season. He writes: "I am sending you two plants of Begonia Patrie. You will observe what nice little plants they make for table decoration."

WARE'S NURSERIES.

PROBABLY no nursery firm within easy reach of London is to-day better known than that of T. S. Ware, Limited, whose headquarters—apart from important branches elsewhere—are at Feltham, Middlesex, and where, as the immediate product of some forty or fifty acres and a reputation which is nothing if not world-wide, an enormous business engages the attention of the firm from January to December. Best known forty or more years ago as one of the chief pioneers in the cultivation of hardy plants, the best traditions of this department have not merely been maintained through all the intervening years, but to-day the business, with its ever-increasing ramifications, is obviously abreast with the times, doing its best to grapple with orders whose huge proportions a few years ago the most sanguine of hardy plant specialists had not then dared even to dream.

What is neither apparent nor obvious to the casual visitor, or at first sight, is the important fact that the first duty of an establishment of this sort is the creation of stock. Thus it is that plants of all sizes, from the seedling or the cutting to the saleable article "that is bound to give satisfaction," are seen on every hand; and by these same means a quarter may be cleared to-day and filled again on the morrow, so far as the available material would be concerned. We have said that the hardy plant department has ever been a leading feature, and to-day we realise it the more as we meander through the acres of beds of these things that abound on every hand. It is just this same endless variety, this overwhelming body of material, that causes one to shrink from an impossible task—giving particulars of the plants in detail. We may, however, console ourselves in this way, that a visit at any season of the year will not be in vain, whether it be in midwinter, when the Christmas Roses are in bloom, or a little later, when their Lenten sisters in quaint garb are in full beauty, or, still later, when masses of things like the Tufted Pansies, Aubrietias, alpine and creeping Phloxes give welcome sheets of colour. The visitor may drop in, too, at a time when, in their indefinable beauty and charm, a large section of the Iris family may be giving of its best and affording to the landscape a picture quite unique, without a parallel in garden or greenhouse throughout the year.

Or it may be that the Poppy is holding sway, and with its wonted Oriental splendour providing the most sumptuous feast of the garden year. Those whose acquaintance of the Poppy family is limited to the solitary examples of the garden, or to the cut flowers which not infrequently afford a bad time to others in the heterogeneous mixtures seen at many an exhibition, should make their acquaintance in the heyday of their beauty and as seen in the rather strong, loamy soil which obtains in the Feltham nurseries, where they may be seen in orange, scarlet, crimson and a variety of so-called "art shades" too numerous to mention. In like manner the Larkspurs, Pæonies, Pyrethrums and Phloxes all play their part in their seasons, and, being grown by the acre, are invaluable from the educational standpoint when seen side by side in beds, blocks or masses of colour. Then in turn come the Kniphofias and the Sunflowers, till presently the brilliant blues and fleecy or misty clouds of the Michaelmas Daisies bring up the rear of the great flowering groups of the year. To say that these latter constitute an important item or feature here is to give but a poor idea of the wealth of beauty and variety that is seen, one in particular, Beauty of Colwall, so recently the subject of a coloured plate in THE GARDEN, commanding attention at once. Beauty of Colwall is the first double blue Michaelmas Daisy that has appeared, its significance and merit being marked in 1907 by the floral committee of the Royal Horticultural Society granting it the unusual award of a first-class certificate.

Other notable groups in the hardy plant section are the hardy Crinums, which include C. capense, C. Powellii and others with their varieties; and the Eremuri, a plantation of these latter creating one of the finest pictures we have seen of these imposing flowering plants of early summer. Obviously intended for grouping with a free hand, it is only when seen in this way, amid suitable surroundings, that their great value is realised. These are a few of the big features to be seen here from time to time; the little things—the myriads of plants that complete the collection—we must of necessity pass by.

The alpine plants of a surety merit notice, for they are here in their thousands in plunging bed and frame, and much might be written of these alone; Bellflowers, Primulas, Saxifrages galore in all sections, Ramondias, Androsaces, a magnificent if not unique batch of A. Chumbyi in its hundreds being something to be proud of, Cyclamen, and hosts of others appealing very strongly to the lover of hardy plants, and affording interest for many months of the year. And not only in the home nursery are these things engaging the attention of the firm, as during recent years a landscape department has sprung up which, in conjunction with many important contracts in border and colour-scheme planting, with rock garden-building and the like, are constituting to-day an important part of the firm's work.

Other important departments are Roses and Dahlias, the former being grown outside by the acre together with some 20,000 annually in pots, while the imposing displays of the latter made in London and the provinces will, we think, speak for this particular speciality in no uncertain manner. Bulbs are also a great feature, though without doubt next in importance to the hardy plants are the firm's famous strains of tuberous Begonias. Not merely in form or brilliancy with distinctness of colouring do these Begonias merit the highest praise, but equally for the erect growth and rare substance of the flowers are they in the favoured position they occupy to-day.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Christmas Roses (*M. E. Johnson*).—If you possess really good plants of these there is no need to purchase new stock, and, given reasonable treatment with a good position in the garden, you ought to succeed. From time to time much has been written very definitely in the pages of THE GARDEN on the cultivation of these flowers, and we would refer you to past numbers for the fullest information. The best planting or replanting time is September, the best position is one sheltered from north and east—an evergreen screen as opposed to houses or brick walls—while the best soil is a deep sandy loam of not less than 2 feet, and better if 3 feet deep. Leaf-mould is neither desirable nor good if used in quantity, while turfy loam, sandstone or old mortar if the soil is heavy, and perfect drainage are the essentials to success. In September the plants should be freely broken up and replanted in well-prepared ground, and we would rather wait another season than face the risk of transplanting now. In all probability the plants had deteriorated in the tubs, and when you replanted them you should have broken them up at the time we have stated. There are some traces of the spot disease on the sample you submit.

Plants for ditch (*C. T. M.*).—The fact that you were piping the ditch, and that you proposed "simply to fill in rubbish and soil just over the pipes," left us in very considerable doubt as to the degree of moisture or the depth of soil available for the plants; hence our somewhat generalised reply. To the Spiræas and Saxifrage already noted, you might add the Wood Anemone and its blue-flowered form, A. robinsoniana, the Meadow Saxifrage (S. granulata), the Meadow Forget-me-not (Myosotis palustris), together with the King-cup (Caltha palustris) in several varieties. Saxifraga peltata (handsome in leaf and beautiful in flower), Rodgersia pinnata (the Bronze Leaf), such moisture-loving Primulas as rosea, cashmiriana, japonica and Sieboldii, of which latter there are quite a number. Primula pulverulenta is also a handsome plant and of much value for the purpose. In addition, you might embrace Chrysogonum virginicum and the ever-graceful Gentiana asclepiadea and its white variety. Possibly, if you do not care for the Flag Irises, the lovely Japanese forms, with their waving Clematis-like blossoms, would afford you satisfaction, and for July, in such a place as yours, we know of nothing to equal them.

Planting distances for hardy plants (*F. Day*).—The four boldest-growing plants in your list are Anchusa, Cimicifuga, Hemerocallis and Anemone, each of which would, when established, spread out to 3 feet or 4 feet across. This would not prevent other plants being placed near for the time being. Pyrethrums, Heuchera, Iris, Centaurea and others form leaf-tufts 2 feet across or thereabouts. For the remainder, *i.e.*, Gentian, Veronica, Geranium and Achillea, we could give no idea unless we knew what species was intended. The Achillea, for example, might be either A. umbellata or A. eupatorium, one a giant, the other a pigmy. Not many herbaceous plants are good for cutting for their foliage alone, the Epimediums, some of the Thalictrums (which do not always stand well when cut), and the Galegas being among the most serviceable.

Campanula persicifolia and its treatment (*G. Walton*).—This plant prefers a moist and somewhat retentive soil, and frequently deteriorates when planted in very light or sandy soils. As your plants are but seedlings of a year old, they should be allowed to remain to flower next year. Each rosette of leaves or runner to which roots are attached would make a plant if properly treated. The rainfall having been heavy and continuous last year, the Fire Thorn may possibly have been injured by the drip, and should be removed to a drier and more sunny place. Should you plant a fresh specimen, the month of February or March would be a good time.

Dividing Red-hot Poker Plants (*R. B.*).—The best time of the whole year is March and April, when the plants are beginning to start into growth afresh. At that time you may divide them as freely as you will, and if replanted in good soil will not fail to become quickly re-established. In certain favoured localities the work may be done in early autumn, though the adoption of this period is not to be generally recommended. Too frequently autumn-divided examples fall a prey to winter frosts, from which the spring-planted examples are free. If the plants are large, first shake or wash them free of all soil, so that their successful division may be rendered more simple.

Hardy Lilies (*B. A. B.*).—Of the Lilies suggested by you, L. auratum is so capricious in its behaviour that one hesitates in recommending it, though it is such a noble Lily that it well repays any extra care and attention. As a rule it does best associated with Rhododendrons; still, we think you might try it. When planting it is a good plan to work some sand around the base of the bulbs. A variety of L. auratum known as platyphyllum, that bears exceedingly massive flowers, shallow in form, has a better constitution than the ordinary kind. Lilium longiflorum, too, frequently deteriorates after a couple of years, though the first season the bulbs may be depended upon to flower magnificently. It is, however, so handsome that it cannot be omitted. We should not recommend you to plant the recognised peat-lovers, such as L. pardalinum, but rather those species that will thrive in ordinary garden soil. Apart from L. auratum and L. longiflorum, above alluded to, you would do well to make a selection from the following kinds, whose colour, season of blooming, and approximate height are herewith given: L. chalcedonicum (Scarlet Turk's-cap), bright red, end of July and in August, 3 feet to 4 feet; L. croceum, orange red, end of June and in July, 4 feet to 5 feet; L. Hansonii, yellow, end of June and in July, 4 feet to 5 feet; L. Martagon, purple, end of June and in July, 3 feet to 5 feet; L. speciosum Krætzeri, white, August, September and October, 3 feet to 5 feet; L. s. Melpomene, carmine crimson margined white, August, September and October, 3 feet to 5 feet; L. s. rubrum, reddish rose, August, September and October, 3 feet to 5 feet; L. szovitzianum, yellow, dotted purple, end of May and in June, 4 feet to 6 feet or even more; L. testaceum (Nankeen Lily), nankeen, end of June and in July, 5 feet to 7 feet or even more; L. tigrinum (Tiger Lily), orange red spotted with blackish purple, July, August and September, 4 feet to 6 feet (good varieties of this species are Fortunei and splendens); L. umbellatum, brick or orange red, end of May and during June, 2 feet to 3 feet; L. elegans atrosanguineum, red, June, 1½ feet; L. e. Prince of Orange, yellow, June, 1 foot; L. e. Van Houttei, rich crimson, June, 1½ feet; L. pomponium verum, deep scarlet, June, 3 feet to 4 feet; and L. pyrenaicum, yellow, end of May, 2 feet. Though we have given the approximate height and season of blooming of these different Lilies, no hard-and-fast line can be drawn in the matter, as a good deal depends upon the weather and the position the plants occupy.

TREES AND SHRUBS.

Position for Tree Pæonies (*Pau*).—It depends entirely on the strength of the Tree Pæonies you plant as to whether they will flower the first year or not. If you obtain newly imported plants and put them in during spring, it is improbable that they will blossom the same year; while if the same kind of plants are planted in the preceding autumn, they will share no better fate. If, however, you purchase well-established plants, either growing in pots or from a border, and plant them next spring, you will most probably obtain flowers—that is if the roots are not knocked about much. Plants that have been used in a greenhouse could be put out next May. It is usual to establish the plants in pots several months before they are to be forced, while it is better to rely solely on pot culture for those required for forcing, as continual planting out and lifting has a bad effect on Tree Pæonies used for that work. The south border you speak about will answer very well; but if you have a west aspect it is really better, for the sun does not strike the plants so early in the day and young growths are less likely to be injured after a frosty night. Pæonia Moutan is the Tree Pæony, and the many varieties in commerce are forms of that species. There is little to choose between many of the varieties except in colour. Your best plan would be to obtain a catalogue from some nurseryman and select the colours you like best. If border plants were lifted carefully it is likely that they would blossom indoors in spring.

Planting trees and shrubs (*R. Philpot*).—The arrangement of shrubs and trees which you suggest ought to prove effective. Suitable evergreen shrubs are Olearia Haastii, 4 feet; Berberis stenophylla, 8 feet; B. Darwinii, 6 feet to 8 feet; B. wallichiana, 3 feet; B. Aquifolium, 3 feet; Rhododendron fragrans, 3 feet; Laurustinus, 6 feet; Phillyræa decora, 4 feet; Veronica Traversii, 4 feet; and Cistus laurifolius, 4 feet. Deciduous shrubs to mix in are Spiræa arguta, S. canescens, Forsythia suspensa, Ribes sanguineum atrorubens, R. aureum, Magnolia stellata, Prunus japonica, Diervilla Eva Rathke, D. Abel Carrière, Cytisus præcox, C. albus, C. scoparius andreanus, Rosa rugosa, R. rugosa Blanc Double de Coubert and Philadelphus Lemoinei. The most suitable flowering trees for the purpose are Prunus Avium flore-pleno, P. Pseudo-cerasus var. James H. Veitch, Pyrus spectabilis flore-pleno, Paul's Double Scarlet Thorn, double white Thorn, Laburnum alpinum, L. alpinum var. Watereri and Pyrus Aucuparia.

Conifers for planting (*S. B.*).—Cupressus macrocarpa is one of the most rapid growing of conifers, but in many parts it is somewhat tender. However, it should thrive in your neighbourhood, in which case it might be intermingled in Row 3, or for Row 4 alternated with the Corsican Pine (Pinus Laricio). This last will be better than the Austrian for such a purpose, and if you wish it the fourth row may consist of Pinus Laricio alone.

Planting beneath a Yew tree (*Manor House*). We think the Azaleas will do quite well, though a flower-bed in such a position will require a good deal of making. Such a bed should be well made to a depth of 2 feet with loam, leaf-soil and peat, unless the local soil is favourable to the growth of the plants. The Violas we very much fear would feel the drought too much, and in their stead we would suggest carpeting the ground beneath the Azaleas with Crocus, Snowdrop, Daffodil and hardy Cyclamen, employing the late summer-flowering Lilies, as tigrinum and speciosum, to give you a little colour effect at that time. By this arrangement the earliest and the latest flowering bulbs would play their part at a season quite removed from the principal group in the arrangement, which the Violas would hardly do. Moreover, if you plant variously coloured varieties of the Azaleas, the Violas would be almost sure to clash therewith at the precise moment when the greatest harmony should prevail. A few clumps of the pure white Madonna Lily would be singularly effective against the sombre tone of the Yew, and should be grown by all means.

ROSE GARDEN.

Grouping Roses and herbaceous plants together (*L. Bel*).—There could be no objection whatever to arranging some beds of herbaceous plants among those of Roses, but it would never do to have these subjects in the same beds. Supposing one arranges a lot of beds upon a lawn and they are of varying shape, some of these that seem to require a good bold growth could be planted with, say, Delphiniums, others with Pæonies, Phloxes and so forth, always providing the colours did not clash with the Roses. For our part we prefer that Roses be placed pretty well together, as the showy herbaceous plants have a tendency to "kill" the Roses from a colour point of view, but it is purely a matter of taste. In large public gardens, such as Kew, one may see fine beds of Roses, and near to beds of some of the delightful flowering shrubs, which seem even more happy among the Roses than the showy herbaceous plants. In the long border, for instance, one could plant, say, a group of five Roses, then a group of Iris, another group of a Rose, then Pæonies, &c. Standard and pillar Roses, too, have a fine effect, arranged with taste, at the back of a herbaceous border. Do not plant other things among the Roses unless it be Pansies. When the time comes to cultivate the soil, bulbs and other subjects are a nuisance; but in the case of Pansies these can be planted after the usual tillage has been carried

out, and, following this, the Violas can be made to act as a protection against drought.

Looping up rustic arches for Roses (*E. W. Kemp*).—We do not care for chains, for they are not only cold, but they are cumbersome in appearance. Tarred rope, such as is used by fishermen, is a very good substitute, and if the Roses are of the freest-growing kinds the rope is quickly hidden from view.

Tiles for Rose-beds (*P. S.*).—The tiles you mention are excellent for Rose-beds. We think you can obtain these from a firm of the name of Rosher, Kingsland Road, London. But why not dispense with tiles and plant as edging some of the lovely little Polyantha Roses? They can be kept down to 12 inches or 15 inches in height and are always in bloom. Plant them about a foot apart and cut down to the ground each year.

Good all-round Roses (*W. A. S.*).—It is most difficult to confine one's selection to six varieties of equal merit to Mme. Abel Chatenay and Killarney. There are several that seem to approach to this standard of excellence, and their names are as follows: Earl of Warwick, Lady Ashtown, Prince de Bulgarie, Joseph Hill, Dean Hole, Mrs. Theodore Roosevelt, Gustave Grunerwald, Betty, Lyon Rose, Pharisaer and, of course, Melanie Soupert.

Climbing Roses with large blooms (*G. Moore*).—There are several Roses very suitable for your 5-feet fence. Hugh Dickson would be a fine variety, and if you want another good crimson, J. B. Clark would be one. Some other good and suitable kinds are Johanna Sebus, Mme. Isaac Pereire, Frau Karl Druschki, Mme. Jules Gravereaux, Mme. Wagram, La France de '89, Ulrich Brunner, Grüss an Teplitz, Gustave Regis and Bouquet d'Or.

Roses Euphrosyne and Flora (*Mrs. R. F.*). We think you would like Flora best. It produces quite a nice-sized bloom of lovely shape and charming colouring, reminding one of a small flower of Captain Christy. Euphrosyne blooms in large clusters of dainty pink, the individual flowers being very small, but in the mass they make a nice show. The difference in time of flowering is but a few days, both appearing about the third week in June. Euphrosyne is, perhaps, the best for rambling, and Flora would be most suitable as a pillar.

Free autumn-flowering crimson Rose (*E. J. R.*).—Undoubtedly one of the best crimson Roses for the autumn is General McArthur. It is very bright, produces its blooms on good upright stems, and bears clusters of good quality blooms that are very fragrant. Ecarlate is another good brilliant colour, but its blooms are rather thin and have no special merit in themselves, although the effect in the mass is very brilliant. Louis van Houtte and Commandant Felix Faure are both grand Roses, but are not quite so free-flowering in autumn as the varieties named. Of the Monthly Roses, Charlotte Klemm gives a fine colour effect, if that is what you desire.

Roses infested with thrips (*A. H. Sargood*).—These little pests are very troublesome and some Roses seem to be their special favourites. Roses in somewhat dry places, where they cannot be cleansed by the rains, seem to suffer most. We have found copious syringings with cold water as good as anything, but the foliage needs spraying from beneath or the growths held over by an assistant while the operator directs the syringe to the under side of the foliage. Should this not prove effectual, try Tobacco wash, prepared as follows: Tobacco, half a pound; soft soap, 1lb.; soft water, twelve gallons. Steep the Tobacco in water for some days and then allow it to simmer over a fire for an hour, pour off the liquid, well crush the leaves and proceed again as before, and add the second extract to the first. This extract may then be mixed with the dissolved soft soap.

THE GREENHOUSE.

Plants for unheated greenhouse (*Tyrone*).—In an unheated greenhouse you must, for the early months of the year, depend principally upon bulbs and such subjects as Spiræas, Dielytra spectabilis, Lilies of the Valley and Primroses of sorts. Hardy shrubs, too, with the protection afforded by the glass will anticipate their usual season of blooming by some time, and consequently are then much appreciated. For summer you have a considerable choice of subjects, the most persistent flowering of which, such as Pelargoniums, tuberous-rooted Begonias, Fuchsias, Petunias, Heliotrope, Lantanas, &c., can be purchased cheaply at the proper season from the advertisers in THE GARDEN. Liliums auratum, longiflorum and speciosum in variety will, if potted now, flower in the summer, and in the case of L. speciosum well on into the autumn. You speak of Chrysanthemums grown in the greenhouse not turning out satisfactorily. These should have been grown outside during the summer and taken into the greenhouse when the flowers were formed. Cannas are very ornamental objects in the greenhouse during the summer and early autumn, and they can be wintered anywhere safe from frost. For Ferns we think you would get the greatest amount of pleasure from a collection of British Ferns, as they would give no trouble on the score of being tender, and many of them are very beautiful. In your favoured clime Geraniums might possibly be wintered safely in an unheated house; but should the weather prove severe they would probably perish. Some Fuchsias are quite hardy, but the recognised florist's varieties need protection, though they are hardier than the Geraniums. Fuchsias should, in the winter, be kept dry or nearly so. Good single Chrysanthemums for the purpose desired are: Bronze Pagram, reddish bronze; Capella, golden yellow; Crimson King, crimson; Crown Jewel, bronzy yellow; Cannell's White, pure white; Dora Godfrey, canary yellow; Edith Pagram, rich pink; Elsie Neville, terra-cotta; Emily Wells, clear pink; Framfield Beauty, rich crimson; Kitty Bourne, deep yellow; Mary Richardson, reddish salmon; Miss Mary Anderson, blush; Pink Perfection, pink; Pride of Merstham, reddish purple; Queenie Jordan, white; Roupell Beauty, dark plum; Sir George Bullough, clear yellow; Taurus, reddish orange; Whitewings, white; Winnie Wells, deep yellow; and W. Rogers, bright red.

Calanthes going wrong (*W. A. B.*).—The foliage of Calanthe sent is certainly much decayed, and judging by the appearance of the spots on the leaf, too much moisture has been used either at the roots or overhead. As you are aware, the Calanthe should never be touched with the syringe, and we have seen splendid plants ruined by being housed in a damp, steamy stove just as the flower-spikes were finishing their growth.

Calanthe bulbs infested with worms (*G. D. T.*).—The greater part, if not the entire trouble, is doubtless caused by an excess of moisture at the roots when the plants were finishing their growth. At that time they should be thoroughly exposed to the light in order to ripen the bulbs. No doubt the small worms are present in consequence of the decay, and are not in any way the cause thereof. If the one dose of artificial manure was very strong it might play an important part in the trouble.

Chrysanthemums for cold greenhouse (*K. E. Johnson*).—The cold greenhouse is certainly not a good place for the above unless you only require their flowers at midseason or a little later. As you do not say for what season you require the blooms, we give you a general assortment covering some weeks. Source d'Or, Lizzie Adcock, Caprice du Printemps, Kathleen Thomson, Moneymaker, Soleil d'Octobre, Freda Wells, Foxhunter, R. F. Felton, Market Red, Hortus Tolsames, M. W. Holmes and Embleme Poitevine. These are of easy growth and would provide flowers for a rather long period.

FRUIT GARDEN.

Orchard house to heat (*Ernest Moon*). In a house of the dimensions you give there is a considerable space to heat, and to spread the heat evenly and effectively all over the house we think you would be well advised to fix a small boiler at one end of the house, with flow and return 4-inch pipes attached to it. You do not say whether it is a span-roofed or lean-to house. If the former, the pipes should be so arranged as to go all round the house and one end, fixing them about a foot from the wall and about the same from the ground level. If the latter, both pipes would be better fixed in front and one end, the coldest, one above the other. We do not think you would find an oil-stove satisfactory for a house so large and lofty.

Cause of Apple tree dropping its fruit (*J. H. S.*).—Evidently your Apple tree has got into a too vigorous state as regards its roots, and had the tree been younger we should have advised lifting or replanting. Under the circumstances you had better take out a good workable trench at 3 feet to 4 feet from the main stem; work round the tree, cutting back all gross roots and getting underneath the tree with a fork. When all the large roots are cut through, fill in with compost of old mortar rubble and burnt refuse, ramming this well under the tree as the work proceeds, carefully laying in the fibrous roots. At least three or four barrow-loads of the above material should be added to the old compost made firm, and some coarse litter over the top soil at the finish.

Plums splitting (*Walsall*).—Last year great loss and destruction was caused to the Plum crop as the fruit was ripening by the weather being so wet and by a heat wave setting in for a few days at that time. The lime is not at all responsible; on the contrary, all stone fruit trees delight in lime of any description. Seeing your trees are healthy, we do not suppose you will be troubled with the fruit splitting again.

Silver leaf disease on a Plum tree (*Staunell*).—This disease is of American origin, and is fatal, as far as our experience goes, to any Peach or Plum tree affected by it. It is singular that this fatal disease confines itself to the Plum and the Peach. Its effect is so virulent that it practically paralyses the vital forces of the tree it attacks, and the sooner the tree and its foliage are burnt out of the way the better. We have no direct proof that the disease is contagious; but it is better to run no risks.

SOCIETIES.

READING GARDENERS' ASSOCIATION.

AT the final meeting of this session on Monday, the 20th ult., there assembled one of the best gatherings of members ever seen in the Abbey Hall, Mr. A. F. Bailey (chairman) presiding, when, apart from the usual fortnightly lecture, there was the attraction of a magnificent exhibit of Onions, put up by Messrs. Sutton and Sons. The lecturer for the evening was Mr. E. Hickey of The Gardens, Maiden Erleigh, one of the prizewinners at Mr. Charles Foster's classes for young gardeners held during last winter. The subject was "How to Plant a Bush Fruit Garden 44 yards square." It was at once manifest that Mr. Hickey was perfectly at home with his subject. Taking Gooseberries, Currants (Red, Black and White), Raspberries and Loganberries as the subjects for his bush fruit garden, the lecturer gave full instructions as to the preparation and planting of the ground, and all information respecting the after-treatment of the trees. He also gave a comprehensive list of the best varieties in each class to grow, stating fully the qualities and chief characteristics of the different trees, and concluded his paper by excellent advice on the prevention and eradication of many of the pests to which bush fruit trees are subject. On resuming his seat Mr. Hickey was most heartily applauded, and in the debate which followed he was repeatedly complimented by the speakers on the really able manner in which he had delivered his "maiden" paper. Mr. Hickey answered readily all questions put to him by the members, and at the close of the meeting received a very hearty vote of thanks. Mr. D. Turner, head-gardener to A. E. Huggins, Esq., Wargrave Hill, exhibited well-grown Ailsa Craig Onions. The annual general meeting of the association is fixed for Monday, January 10.

WARGRAVE AND DISTRICT.

THE last meeting of the year took place on Wednesday evening, the 15th ult., when Mr. William George, gardener to Mrs. Tuckett, Yeldhall Manor, read an interesting and instructive paper on "Useful Flowering Shrubs." Among the subjects mentioned were Pyrus japonica, Forsythias, Ribes, Berberis, Magnolias, Prunus, Lilacs, Brooms, Azalea mollis, Mock Orange, Guelder Roses, Laurustinus, Spiræas, Weigelas, Deutzias, Kerrias, Veronicas, &c. The habits of growth, cultivation and propagation were brought under notice, and a good discussion followed. At the close a hearty vote of thanks was accorded Mr. George. Officers for the ensuing year were nominated in accordance with the rules of the association. Mr. J. T. Blencowe was awarded a cultural certificate for specimen plants of Begonia Gloire de Lorraine.

British Gardeners' Association (London Branch).—The next meeting will take place at Carr's Restaurant on Thursday, January 13, at 8 p.m., when an address will be given by Mr. A. W. Tidy of Kew Gardens on "The Exhaustion and Restoration of Soils." The chair will be taken by Mr. E. F. Hawes. All professional gardeners are invited to attend.

"Country Life" for January 8 contains, among other articles, an illustrated account of the French château, Cheverny, by Theodore Andrea Cook; "Tale of Country Life: Drusilla's Duty," by V. H. Friedlaender; "Wild Country Life"; "The Southwold Hounds" (illustrated); "East African Game."

CATALOGUES RECEIVED.

Messrs. T. Marsh and Co., Limited, 72, Bishopsgate Street Within, London, E.C.: Seed Potatoes.
Messrs. J. Veitch and Sons, Limited, King's Road, Chelsea: Seeds.
Messrs. Sutton and Sons, Reading: Seeds.
The Agricultural and Horticultural Association, Limited, 92, Long Acre, London, W.C.: One and All Seeds.
Mr. T. Thorp, 4, Broad Street, Reading: New and Second-hand Books.
Messrs. J. Peed and Sons, West Norwood, London, S.E.: Seeds.
Mr. W. J. Godfrey, Exmouth, Devon: Chrysanthemums.

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CONTENTS.

GARDEN PEAS FOR THE COMING SEASON 25

NOTES OF THE WEEK
Forthcoming events .. 26
Annual dinner of the Gardeners' Royal Benevolent Institution 26
The Crocuses 26
"Irish Gardening" .. 26

CORRESPONDENCE
Abies firma 26
Cleaning greenhouse glass 27
Calceolaria integrifolia 27
Sweet Pea fertilisation 27

GARDENING OF THE WEEK
For the South and South Midlands .. 27
For the North and North Midlands .. 27

ROCK GARDEN
Asperula (a Woodruff) hirta and its culture 28

GREENHOUSE
Lily of the Valley as a pot plant 28

FRUIT GARDEN
Gooseberries on trellises and walls .. 28

Workers among the flowers: Mr. James Grieve 29

FLOWER GARDEN
Sweet Pea chat 30
Chrysanthemum Mrs. W. Parker 31

COLOURED PLATE
Barberton Daisies .. 31

ROSE GARDEN
How a Rose pergola was made 31
Roses as coat flowers 31

GARDENING FOR BEGINNERS
Garden work week by week 32
Pruning the Pear tree 32
Plants covered with snow 33
How to treat old Zonal Pelargoniums 33

THE TOWN GARDEN .. 33

BOOKS 34

ANSWERS TO CORRESPONDENTS
Flower garden 34
Trees and shrubs .. 34
Rose garden 34
Fruit garden 35
Miscellaneous 35

SOCIETIES 36

ILLUSTRATIONS.

A charming alpine plant: Asperula hirta 28
Mr. James Grieve 29
A new single Chrysanthemum: Mrs. W. Parker 30
Barberton Daisies .. .. Coloured plate
A Rose pergola four years after its formation 31
Pruning the Pear tree 32, 33

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

GARDEN PEAS FOR THE COMING SEASON.

WITHOUT a doubt the culinary Pea of to-day holds the premier position in kitchen garden and on dining-table, and rightly so, because all who have grown and subsequently tasted a well-cooked dish of a good, up-to-date Marrowfat variety will readily support the statement that it cannot be surpassed by any other vegetable grown in our gardens.

During the last two decades garden Peas have undergone what one might almost call a revolution, or perhaps evolution would be the better word to use, and like their near allies, the Sweet Peas, have been improved all round. Not only have the newer varieties better flavour and heavier cropping properties, but they are also possessed of greater vigour, and consequently are not so liable to be attacked by fungoid or insect pests.

In briefly describing the culture of these Peas, I do not intend to go into the elaborate details considered necessary to grow extra good pods for exhibition purposes, but rather to give a few brief hints on their culture for an amateur who wishes to grow good crops of high quality Peas for his or her own consumption; and in doing this I cannot do better than describe the methods adopted last year in my own garden, and which proved highly satisfactory.

Towards the end of January the whole garden, which is rather heavy but very stony soil, was dug over two spits deep, the lower spit being kept at the bottom and, at the same time, manured with two good barrow-loads of strong cow-manure and two of rotted horse-manure and decayed leaves to each square rod. This was a general manuring irrespective of the crop the soil was intended to carry. Just before sowing the Peas, which, by the way, I always grow in shallow trenches some 2 inches to 3 inches deep, the soil, 1 foot wide, just where the row was to go, was given a good dressing of soot and Wakeley's Hop Manure, the former on account of the prevalence of slugs, and the latter because I have proved that, used in this way, it is of considerable benefit to the Peas. Both were well mixed with the soil to a depth of 6 inches.

Sowing was carried out, roughly, at fortnightly intervals to provide a succession, and the earliest sowings were made nearly twice as thick as usual to allow for losses. In speaking of early sowings, it may be well to warn readers against covering the seeds of wrinkled varieties too deeply. With the advent of April garden Peas may be covered with from 1½ inches to 2 inches of soil, but previous to that half an inch is quite sufficient, and in heavy soils a specially prepared sandy mixture should be used for covering. Unless these precautions are taken it is highly probable that the seeds, good though they may be, will rot in the soil instead of germinating. My first sowing last year was made the second week in February, and the last at the end of July, but owing to the wet season the latter was only a partial success. As soon as sown the rows should be protected with Pea guards, fish-netting or strands of black cotton fastened to short sticks, or as soon as the young sprouts are visible birds will nip them off. Where mice are troublesome the Peas should be well shaken in a mixture of red lead and paraffin.

In dealing with varieties one is confronted with a most difficult task, as there are so many excellent sorts to choose from, and many that could be highly recommended must of necessity be left out. Under the circumstances it may be well to adhere to those which I have grown during the last three years, and doubtless readers will give their experiences with other high-class sorts.

First Early Varieties.—Webb's Surprise is a new Marrowfat Pea of dwarf habit, with me not more than 1 foot high. A heavy cropper, and the Peas are of splendid colour and flavour. Sutton's Little Marvel.—Another very dwarf sort with rather smaller pods than Surprise, but a very heavy cropper and of first-class quality. Sutton's May Queen.—A larger-podded and taller-growing variety, reaching a height of nearly 3 feet. Pods are blunt and filled with Peas of very high quality. Carter's Early Morn.—A very quick-growing and large-podded variety, which may well be sown with the second earlies, as its quick growth brings it into bearing in a short period.

Second Early Varieties.—Webb's New Model is a handsome Pea that has a great future before it. Last year was the first I had grown it, but it will find a place again. The pods are slightly curved and smooth, similar to Gladstone but larger. Each contains from eight to ten Peas of large size and first-class flavour. It grows about 4 feet high and is a most prolific variety, which I regard as one of the best introductions of recent years and superb for exhibition. Carter's Daisy.—If I were confined to one variety only for general purposes this would be the one. For a small garden it is ideal. It grows 18 inches high and is usually covered from bottom to top with good-sized pods filled with Peas of excellent flavour but rather pale colour. Sown late this variety will give good crops in the autumn. Webb's Paragon.—A large-podded Marrowfat that grows 3 feet high. It is a very heavy cropper and has a vigorous constitution. A good garden and exhibition variety.

Sutton's Superlative.—A new Pea introduced by the Reading firm in 1906. It grows from 3 feet to 4 feet high and is exceedingly prolific, the large pods being filled with handsome dark green Peas of exquisite flavour. Centenary, also raised by Messrs. Sutton and Sons, is a Pea that no one can afford to be without. It is a noted exhibition variety and is also first-class for the kitchen. It grows 5 feet high.

Maincrop Varieties.—Sutton's Peerless Marrowfat is a very robust variety that produces an abundance of large pods, each filled with beautifully coloured Peas. Height, 3 feet. Sutton's Eureka.—An older but splendid cropping variety of very high quality, and suitable for garden and exhibition. Webb's Distinction.—This is a very high-class maincrop Pea that deserves a place in every garden, very robust, a heavy cropper, and the large pods are well filled with deliciously flavoured Peas. Height, 4 feet. Carter's Buttercup.—A large-podded variety of the Daisy type. One of the most prolific Peas I have grown and the flavour is good. It usually grows about 2 feet high. Carter's Quite Content.—A 6-feet variety that bears very large pods. Purely an exhibition variety, for which purpose it is most valuable. Glory of Devon.—A very heavy cropper of fine flavour. Height, 3 feet 6 inches.

Late Varieties.—Gladstone is an old variety that grows from 3 feet 6 inches to 4 feet high. Pods very smooth and thin-shelled, each being packed with from eight to ten dark green Peas. Flavour extra good. Ne Plus Ultra.—Also an old variety that should be grown where plenty of room is available. Height, 6 feet. A prolific Pea of exquisite flavour. As previously stated, the above list might very easily be extended, but all those named are worthy of inclusion in any garden. H.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 20.—The Gardeners' Royal Benevolent Institution, Annual Meeting, Simpson's, 3 p.m. Annual Supper, same place, 6 p.m., Mr. N. N. Sherwood in the chair.

January 25.—Royal Horticultural Society, 1—5 p.m., Mr. Harry J. Veitch, Exhibition of Presentation Portrait.

Annual dinner of the Gardeners' Royal Benevolent Institution.—The Hon. Harry L. W. Lawson will preside on June 22 at the seventy-first anniversary festival dinner to be held at the Whitehall Rooms, Hotel Metropole, in aid of the funds of the Gardeners' Royal Benevolent Institution.

The Crocuses.—Our readers will, we feel sure, be pleased to know that Mr. E. A. Bowles, who is perhaps the greatest living authority on the Crocuses, will write a series of popular articles, accompanied by original drawings, on these beautiful bulbous flowers. Other series of interesting and instructive articles have been arranged for to appear during the present year.

"Irish Gardening."—The first issue of the new year is a bright, well-printed number, and opens with an article by Mr. F. W. Moore, M.A., F.L.S., Director of the Royal Botanic Gardens, Glasnevin, on "The Present Position of Horticulture in Ireland." Mr. Moore reviews the progress of gardening during the past four years, and mentions: "One difficult subject may not only be said to have held its own, but to have made rapid and remarkable progress; that is the Carnation. It is more extensively grown than was formerly the case, the varieties grown are better, and the plants are better grown. In outdoor gardening there are also changes. Formal bedding-out continues to disappear, and has been replaced with a much higher class type of gardening. Of old favourites the Rose still reigns supreme, and continues to advance all along the line. Outdoor Roses are at present grown by more gardeners of all sorts than ever before, and the type of Rose has improved, fortunately without attaining the huge dimensions and loss of refinement which have been the fate of many popular flowers, qualities which helped to dethrone them from the proud positions they occupied. . . . The great advances in outdoor gardening are along correct and permanent lines. Herbaceous plants, alpine plants, and rock gardens, aquatics and bog gardens, and flowering shrubs are the specialities one finds receiving most attention in present-day gardening. The advance in the cultivation of these plants, perhaps in one set only in any particular garden, is as marked as it is gratifying, and brings us nearer to Nature, to happiness, and to contentment with our gardens. Where these plants have been taken up, the owners of the gardens have in many cases become, not only owners, but growers, and they have acquired an accurate and critical knowledge of the nature, habits, and requirements of their pets, which add a zest and interest to garden work and frequently brings that commendation to the gardener which he sighed for in vain under former conditions, and gives also that same zest and interest to him which stimulates to further exertion." There are several other interesting articles and illustrations.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Planting paved walks with alpines.—Exception was taken recently by "A. D." to the planting of the paved walks of the garden beneath pergolas and the like with plants of alpine growth, on the ground of tidiness. I think, however, that there are two sides to the question, abuse rather than a use having been made of a system of planting intended formerly for the rock garden or its approaches, or the rude steps or stepping-stones not infrequently found therein. In such places as these the planting of the more miniature-growing alpine plants—as one might well call these "creeping things of the earth"—has, to my mind, a decidedly pleasing effect where intelligently done. That it is often carried to excess, and that plants of a foot or more in height at flowering-time are frequently seen in such places, I know full well. These, however, can only be regarded as errors of judgment. Plants that at flowering-time appear appreciably above the stepping-stones are in the way, and are a great mistake, a chief idea of such planting being the filling up of crack or crevice, or occupying the spaces between any two stones, while taking away the hard margins of the latter where such protrude. To plant freely of the mossy Saxifrages, and equally freely of Arabis, Aubrietia, garden and alpine Pink, Acantholimon, Thrift, and other things of a like tufted character, is not merely to obstruct the pathway and rob it of its would-be characteristic beauty and charm, but to render the place a sort of dumping ground for all plants of dwarf habit, the accidental idea of an outgrowing plant here and there being entirely lost by the continuity of a miscellaneous host of plants dropped down in meaningless fashion. The dwarfest of the Sedums, as S. hispanicum and its variety S. h. glaucum, S. corsicum and others, with the most miniature of the Harebell Campanulas, the Arenarias and the Thymes, among others, may all appear to advantage if strewn as it were by the margins of the stones, a break or a rest being afforded to the eye by the appearing of a totally different subject in the near distance. For such places as these it is the close carpeting, rock-loving or stone-clinging subjects alone that should be encouraged; the more tufted and such as require stepping over should not be tolerated for a moment. In a rocky pathway it is the stones or rocks that should appear, mossed over in part or garnished here and there by only such miniatures as can endure the feet of men and still hold their own. And just as the furnishing of the stepping-stones in the rock garden is overdone, so is the planting of similar things in all sorts of places where paved walks appear, not merely overdone, but quite out of place. It is not the tolerant use of suitable things, but the intolerant, excessive and continuous use of unsuitable things that go to make an incongruous whole. Indeed, any sort of planting of this kind in given circumstances may become incongruous by reason of the environment alone, as, for example, the Rose, Clematis or hardy Vine pergola, and to plant tufted alpines of all classes in such places without let or hindrance, and with no regard to their more immediate progress or development, is not gardening at all; rather is it but an attempt at playing the thing. To aim at the natural and beautiful in such matters is worthy of general commendation; but to labour for incongruities which savour of the ludicrous cannot be too strongly condemned by all lovers of gardening.—E. H. JENKINS.

"Greek Lavender."—I fancy what your correspondent is anxious to find under the name of Greek Lavender is a dwarf Lavender that I buy from Messrs. Chilvers and Son, Hunstanton, under the name of Dutch Lavender. This is far more compact and dwarf in its habit than the ordinary Lavender, the bloom is smaller, but the colour is far deeper and the perfume much stronger. The leaf, too, is more silvery. It flowers here about the end of July; of course, it would flower fully six weeks earlier in Cornwall than it does here.—B. S. FAUDEL-PHILLIPS, *Balls Park, Hertford.*

Single Chrysanthemum Arcturus.—Now that single varieties are having the attention bestowed upon them that they deserve, a word of praise for the above-named sort will not be out of place. It was raised by Mr. Norman Davis and distributed last spring. The flowers are rich crimson, with a golden zone round the disc. They are circular in form and slightly recurving, with good stiff stems. The plant is dwarf and sturdy in growth and carries bold foliage. It is a variety that, when generally known, will be in great demand. This and the white Mensa (by the same raiser) make a pair of the most beautiful single Chrysanthemums yet introduced.—E. C. POOLEY, *Gnaton Gardens, Plymouth.*

Abies firma.—The introduction of this Fir to English gardens dates from Mr. J. Gould Veitch's visit to Japan in 1861. According to "Hortus Veitchii," it was forwarded by him to the Veitchian establishment during that year, Maries sending it again some sixteen years later. It is a most distinct Fir, and is easily recognised by its large, flat, dark green leaves, which are sometimes 1½ inches in length, an eighth of an inch wide, and with deeply cleft apex. It is said to be fairly common in the southern parts of Japan, attaining its maximum dimensions in good, deep soil in moist valleys. Under the most favourable conditions it attains a height of 140 feet or 150 feet, with a girth up to 16 feet. One of the finest specimens in this country is to be seen in the gardens at Carclew, near Falmouth. This tree was noted by the writer about six years ago, and it must have been quite 55 feet high, a fact which suggests that it was probably one of the first specimens planted in the country. From its behaviour it is evidently a tree to be encouraged for the moist, equable climate of the South West Counties rather than for more exposed and colder parts of the country, though there is no reason why it should not be planted in those gardens where the majority of Firs thrive. Like other Abies, it dislikes a hot, dry soil and an impure atmosphere.—D.

Cleaning greenhouse glass.—When reading the timely reminder on the above important matter in THE GARDEN (page 629), it occurred to me that to some readers this work may be anything but agreeable. The thorough cleaning of glass roofs, both inside and out, may, however, be undertaken and accomplished with ease if brushes which are specially made and designed for the purpose are used. These brushes are made to screw on shafts of varying lengths, and are therefore suitable for high, medium or low roofs, and ladders are not required. By the use of these brushes the work can be done more effectually, time is saved, and much of the unpleasantness associated with the use of the ordinary hand or scrubbing brush is dispensed with. Greenhouse plants are never in good health when the glass is allowed to become clouded out with soot and other deposits. Without light they cannot succeed.—COLIN RUSE.

Calceolaria integrifolia. — I was delighted to see Mr. E. C. Pooley drawing attention to the value of Calceolaria integrifolia in THE GARDEN for January 1. We have several plants growing here in our borders, some of which have attained a height of nearly 4 feet and as much through. During July and August they are covered with a lovely sheet of yellow flowers. Our plants have withstood 18° of frost, and have suffered little injury other than the leaves turning brown. It is easily propagated. Cuttings should be taken about the first week in September, inserted in sandy soil and placed in a cold frame. They should then be ready for planting out early in April. This Calceolaria does not show its true flowering capabilities until it has been planted two or three years.—F. W. RICH, *Elfordleigh Gardens, Plympton.*

Sweet Pea fertilisation.—The interesting letter by "D." in THE GARDEN for January 1 recalls to my mind some correspondence in your columns on the same subject during the summer of 1908, in the course of which I suggested that the protruding style or pistil and open wings and keel might have some effect on the fertilisation of the Spencer or waved type. It certainly seems strange now that not one writer agreed with me; indeed, several of them even doubted that such a thing as a protruding stigma ever existed. I think it will be generally admitted now (especially after Mr. Cuthbertson's paper on this subject) that this—"malformation" shall we call it?—does affect self-fertilisation; but the question whether it is responsible for its liability to sport seems to be open still. "D.'s" suggestion of testing this by enveloping some plants of a sporting variety in fine muslin so as to preclude any entrance for insects, I remember, was put forward in this correspondence—perhaps it was by "D."; I really forget. Anyway, I thought it a capital idea, and intended carrying it through, until it was pointed out by Mr. Aldersey, the well-known raiser, that the plants would certainly fall a prey to mildew or some other disease, and, of course, that finished it. "D." raises the question whether there is any connexion between the waved form and the elongated style. Personally, I have not noticed that the style in the Spencers was longer in proportion to the size of flower, my impression being that it was the loose, open keel and wings which allowed it to protrude. "D.'s" statement that "no such irregularity affects edible Peas" as the waved Sweet Peas I hesitate to accept, as I have heard, on very good authority, that the gardening public has no idea what trouble the best seed-growers give themselves to keep the stocks of Peas pure, and I believe that anyone who can grow a row of the Gladstone Pea, which is far from being new, without a fair percentage of sports, or deviations from the type, is very fortunate. I hope that "D." will not think that these few notes are written in a captious spirit, for my idea is simply to keep the subject open until we arrive at something definite.—J. F. BARWISE, *Lancaster.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

FURNISHING the conservatory and providing cut flowers are not quite such an easy matter as it was a month earlier, and unless one has a good supply of forced shrubs to fall back on there is very often a shortage. Schizanthuses that were sown in August will now be growing and must not be allowed to become pot-bound. Another sowing may be made now to keep up a succession, for they are some of the most useful and beautiful plants for decoration. Seeds should be sown of Gloxinias, Begonias, Primulas, Streptocarpus and Gesneras. These seeds are very small, and great care must be taken when sowing. Have the pots in readiness, so that as soon as the packet is opened the seed may be sown. A compost of loam, leaf-soil, peat and sand in equal parts makes an excellent mixture for these seeds. When sown give a gentle watering with a fine rose, and place a piece of glass over the pot to prevent evaporation.

KITCHEN GARDEN.

Hot-beds for Frames, that have been prepared as advised earlier, may now have the frames put on and the soil placed in them. The first sowing of Lettuces, made early in December, ought now to be ready for planting. Place the boxes in the frame for a few days before disturbing the plants. After planting keep the frame closed for a few days, and a slight damping overhead with the syringe is very beneficial. A thin protection from the bright sun is necessary till the plants are established, and guard against frost. A frame of Potatoes may be started. Veitch's Ashleaf, Myatt's Ashleaf and Sutton's May Queen are good varieties for frame culture. A few Radishes may be sown between the Potatoes, choosing a quick-growing variety for the purpose. Another frame should be filled with Carrots and Turnips, Early Nantes and Early Milan. This frame culture is important where it can be carried out, for early vegetables and salads are very acceptable, and a great deal can be done with a little bottom-heat and frames.

FLOWER GARDEN.

All beds that are filled with spring-flowering plants must be kept clean, all decayed leaves picked out, and during dry weather the hoe should be lightly run through the beds. Lawns and walks should be regularly swept and rolled.

Potting Bedding Plants.—A start must now be made with the potting of the various subjects intended for the summer display, such as Geraniums, Heliotrope, Calceolarias amplexicaulis and Burbidgei, and Fuchsias. Three-inch pots are the usual size for the majority in the first potting. They should be placed in a warm house to induce the promotion of fresh roots, a vinery or Peach-house being very suitable. Propagate Lobelias, Iresine, Alternanthera, Ageratum and all other plants that will be required. Seeds may be sown of Antirrhinums. These make very effective beds when planted in their separate colours, but require to be sown early. Salvias Pride of Zurich or Fireball may also be sown at the present time. They are both excellent for summer bedding, also for filling up blanks in the herbaceous borders. Roots of Lobelia cardinalis varieties should now be placed in gentle heat to make a little growth previous to propagating.

The Rock Garden.—This is one of the most interesting departments in the garden, and the sharp weather in December with so much wet will account for many losses. Alpines dislike damp. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

SPRING BEDDING PLANTS.—After the severe frosts we have had during the early part of the winter it is very necessary that all beds of spring-flowering plants be gone over carefully and each plant made firm at the root. It is the loosening of such plants as Wallflowers at the collar, and the subsequent swaying about by the wind, that do more harm than even very severe frosts. If the ground is very sloppy, some fine, fairly dry soil should be shaken into the holes round the necks of these and similar plants. Very often the old double yellow Wallflower dies for want of this little timely attention. All leaves and other rubbish should be removed and the whole flower garden made tidy. Spring bulbs will soon begin to give of their welcome blooms, and much of their beauty is spoiled if the surroundings are littered with rubbish. If not yet done, climbing Roses on walls, pillars and arches should be thinned out and tied or nailed in position. Always remove as much as possible of the old, spent wood and any weak shoots that cannot possibly add to the beauty of the plants.

PLANTS UNDER GLASS.

Streptocarpuses.—These have been greatly improved during recent years, and no one with a little heat at command should fail to grow them. In many ways they are superior to Gloxinias. They bloom for a much longer period, and the new, long-stemmed sorts are good for cutting. Seed sown now and afforded the same treatment as Gloxinias will give plants to flower in the late summer and autumn, and they will make fine specimens for next year. The seed is very minute, and should be sown on a level, smooth surface and covered with a slight dusting of silver sand. A compost of equal parts of sweet leaf-mould or peat, loam and sand is excellent. Pass through a quarter-inch riddle. Well drain the pans and fill to within an inch of the top with this compost. Pass a little of it through a fine sieve and add half an inch to the surface, making it fairly firm and perfectly smooth. Stand the pans for a few minutes to their rims in a bucket of tepid water, let them remain for an hour to drain, and then sow the seeds as thinly and evenly as possible. Stand in a warm, moist place, covering with glass and paper. They will germinate in about three weeks.

Calceolarias.—Those plants which have been wintered in cool pits in small pots will now be ready for a shift. Use good sound compost of a fairly light character and pot only moderately firmly. Plants in 3-inch pots should be moved into the 5-inch size, and any more forward ones that are already in 5-inch pots may have their final shift. First-rate plants can be grown in 7-inch pots, and for all general purposes this size is ample. Make the compost of good quality and use in a rather rough state. Fibrous loam three parts, leaf-mould one part, spent Mushroom manure one part, and enough coarse sand to keep all porous will make a good foundation. The addition of a little soot and some good fertiliser is also to be commended. Do not pot too firmly, and set the plants in a perfectly cool but naturally damp pit or house. Do not over-water, especially at first, and keep clear of green fly.

KITCHEN GARDEN.

Onions and Leeks.—Where it is necessary to have early supplies of these two useful vegetables, or where large specimens are appreciated, now is the time to sow the seed in boxes placed in a warm house. In some gardens it is necessary to raise the whole Onion crop in this way, as only by this method can a crop be assured. If good soil is employed and thin sowing practised, the Onions need not be transplanted until ready for their permanent quarters. C. BLAIR.

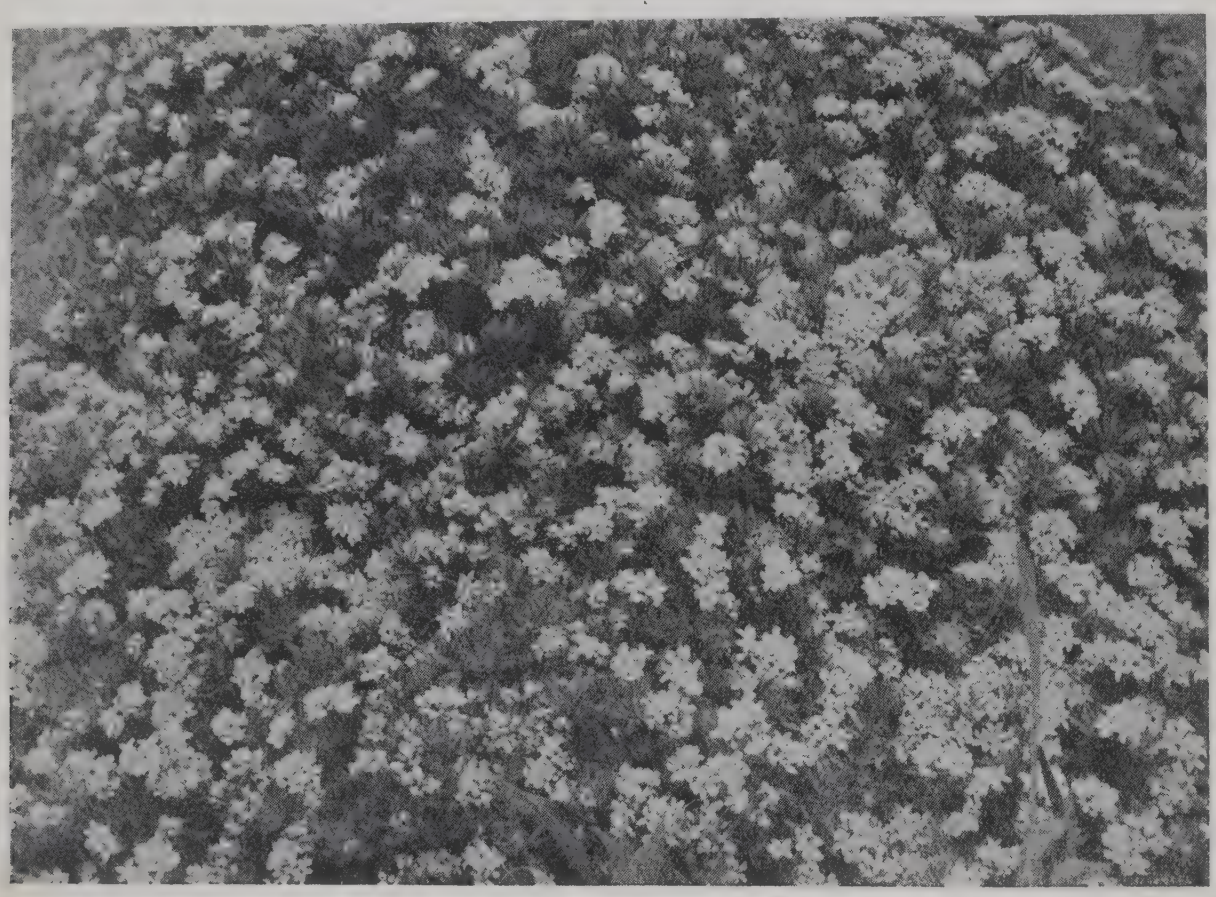
(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE ROCK GARDEN.

ASPERULA (A WOODRUFF) HIRTA AND ITS CULTURE.

ONE of the prettiest of our native woodland flowers is the sweet-scented Woodruff (Asperula odorata). Its snowy flowers, borne in terminal corymbs, are carried well above the leaves, so that when local conditions favour its development it becomes a most conspicuous object during May and June. The subject of this note shares the family characteristics in a marked degree. It is a dainty alpine of only half the height of our native plant, being also more compact and forming a close cushion-like mat of stems, which attain to a height of about 6 inches when in flower. The leaves are deep green, hairy, and encircle the stems in whorls, usually six leaves forming a whorl. The flowers are tinted in the bud, but open out pure white, changing again to pink with age. Individual blossoms resemble Jasmine flowers in miniature, being collected into light corymbs and produced in great profusion by well-grown plants. They begin to open in June and are at their best during July and August, while there are generally a good sprinkling of flowers upon the plants as late as October. In winter the plant is practically deciduous.



A CHARMING ALPINE PLANT: ASPERULA HIRTA.

Asperula hirta is an extremely easy plant to grow and its usefulness soon becomes apparent, while its beauty seems to become more enhanced with wider acquaintance. It succeeds admirably in soil well charged with lime and in a position that is cool and never dries out. A south-west or south-east aspect meets its requirements; but it is essential to provide some shade during the hot midday sun of summer. An almost vertical position, such as will frequently occur in some parts of the rock garden or, better still, in a dry wall, lends itself for the culture of this little alpine, while its beauty is much more readily appreciated when seen in a mass. It is a native of the Pyrenees, and was introduced to this country about 1817. It is easily propagated by division of the crowns in spring. THOMAS SMITH.

Walmsgate Gardens, Louth, Lincs.

THE GREENHOUSE.

LILY OF THE VALLEY AS A POT PLANT.

IN the open borders the Lily of the Valley grows and flowers freely as a rule; but the plants often fail to give satisfaction when cultivated in flower-pots in the greenhouse. Amateurs generally take much pride in growing a few pots of Lily of the Valley in the greenhouse. Inexperienced cultivators should grow them early in the new year. Both clumps and crowns may be used, but I recommend the former. The clumps may be purchased from nurserymen, and they must be potted directly they are received and never be allowed to get very dry. The same remarks apply to crowns. All Lilies of the Valley as seen in the florists' windows at Christmas-time and during the autumn or early winter months are the result of hard forcing. Many owners of greenhouses do not possess forcing pits or beds, and they are, consequently, obliged to grow the Lilies solely in the greenhouse. The following hints are intended to be of use to all readers who are so situated.

Having duly potted the crowns, or clumps, in a compost of loam, leaf-soil and sand, plunge the pots in ashes in the open air, or place them in a cool frame. From the bed, or frame, take them to the greenhouse in batches, so as to obtain a succession of bloom. If the pots are simply placed on the stage and watered from time to time, only a few of the crowns will grow. It is through giving them such treatment that many amateurs fail to grow these Lilies successfully. A regular state of moisture is essential and a certain amount of heat to induce an even growth of the crowns. This condition can be obtained by turning a small box into a miniature forcing-pit. Place the box on the hot-water pipes, then put the pots in the box and bury them in Cocoa-nut fibre or moss. Loose squares of glass may be laid on the box, but it is not absolutely necessary to do this. When the new growth is about 3 inches high the pots should be taken from the box and placed on the stage; for several days afterwards they must be covered with newspapers. If cold draughts are excluded and tepid water is given carefully, strong spikes of flowers and substantial leaves will result.

Another good way of starting the growth of the crowns is that of putting the pots in a small frame or box on a sunny stage and covering them with slightly damp moss to a depth of 3 inches. The heat from the sun will induce a regular and strong growth in such circumstances. AVON.

THE FRUIT GARDEN.

GOOSEBERRIES ON TRELLISES AND WALLS.

THE amateur with none too much space at command would find it advantageous to grow these fruits on a wall or on a wire support, and by so doing will save space and obtain better quality over a longer season, and the fruit is more readily protected from birds. The culture, too, is much easier, as it is a simple matter to shorten back the foreright shoots; indeed, on a north wall, when the wall has been entirely covered with the trees, I have annually pruned with the shears. Some readers may say that this is a rough-and-ready procedure, but it is one that, in such cases, answers and takes little time. Often in gardens of any size there are north walls not furnished, and the remark is frequently made that they are not worth troubling about; but here the Gooseberry does well and gives little trouble. Often, owing to their lateness and the protection the wall affords, the trees yield when others fail in the open.

Of late years the caterpillar pest has been a great scourge in many gardens with bush trees, and they are by no means easy to get rid of, as they reappear in a short time; but on a wall or fence the trees can be easily dealt with, as every portion of the tree can be reached, and it is a simple matter to rake over the soil and clear the ground under the trees. We can now get trained trees for the purpose at a small cost in the shape of double and triple cordons, and these soon cover a goodly space, and after the planting only require the terminals or main shoots to be secured as growth is made, shortening back the others that are making their fruiting spurs. Often a low wall is available that is of little value for other stronger-growing fruits, and the Gooseberry planted now will soon give a full return. I have planted two year old Gooseberries that have in three years from planting grown 4 feet or 5 feet; indeed, it is surprising how well these trees thrive when given food and a deep root-run.

Many may not possess walls, and here what may be termed wire supports are most valuable, but a costly fence is not required. In the country I found that young Larch poles, with the ends that are placed in the ground charred, last many years, though I would advise having the wires closer than for other fruits at the lower part of the fence or trellis to assist the small shoots at the start. With fruits grown thus in the open one can obtain the best of the varieties, as they get ample light, and if grown a yard apart between the rows there is room to work; indeed, I have grown them closer, but so much depends upon the space at command.

It may be thought somewhat out of place to write on these fruits at this season, but now is the time to plant. I advise incorporating a liberal amount of burnt refuse, or old mortar rubble, with a clay soil, and I have found basic slag a valuable addition in poor soils. The well-known Lancashire Gooseberries, which are favourites in the Midland and Northern parts of the kingdom, are mostly of a spreading nature, and they are much more at home when grown on a trellis or north wall. As the berries are large, the early fruits or thinnings are most valuable for tarts, and what makes these large fruits most prized is that when on a fence or wall and netted the fruits hang longer and are of better quality. On the

other hand, I do not recommend some of the large varieties for preserving unless in a green state, as some of them have tough skins.

As regards varieties, of late years some notable additions have been added to these fruits, not so much for their size as for their delicious flavour, though the new Langley Beauty, a fine fruit, should be in all collections for its size and flavour. Some of the small fruits are much liked for their splendid flavour, thin skins and cropping; the new Golden Gem is one of the best in this class, and for dessert purposes all the Champagnes are good. Early Green Hairy, Green Gascoigne, Green Walnut and Green Hedgehog are all of splendid flavour; but the small yellow forms are equally good. Of these mention must be made of Langley Beauty, Leader, Rumbullion, Yellowsmith, Broom Girl and Yellow Sulphur. Of white varieties Bright Venus, Crystal, Langley Gage and Snowball are reliable for flavour. For quantity, one that never fails, and which is of great value for early cooking, is the well-known Whinham's Industry, a splendid grower, a great bearer and one that matures early. The well-known Warrington, red, an old but splendid cropper, is not a large berry, but its excellence is well known. This will grow on a north wall with little sun and hang a long time. For earlier supplies Keen's Seedling is valuable to precede Warrington, and there are equally good sorts in the green and yellow varieties. The old, well-known Rough Red cannot be beaten for preserving.

After the planting it is well to mulch the surface soil with a good covering of partly decayed manure, and it will be found a great help to give the trees a mulch in May or June, as this keeps the surface roots moist, the trees produce finer fruits, and are also much less subject to the attacks of red spider.

G. WYTHES.

WORKERS AMONG THE FLOWERS.

MR. JAMES GRIEVE.

THE recognition of the services rendered to horticulture by Mr. James Grieve of Edinburgh, and to mark his jubilee as a member of the Edinburgh nursery trade, recorded in our issue for the 25th ult., renders this a fitting time to present readers with his portrait, and to add a few notes regarding this great Scottish gardener—for great he undoubtedly is, although his native modesty would not allow him to admit it.

MR. JAMES GRIEVE.

Mr. Grieve is a Scotsman and was born in Peebles some sixty-eight years ago, and entered upon his training as a gardener in the nurseries of Messrs. Thomas Gentle and Son, in that town, at the early age of twelve. Two years afterwards he began his apprenticeship in the gardens of Stobo Castle, then in the possession of Sir George Montgomery, Bart., and under the charge of Mr. James Anderson, a good gardener in his day. Private service does not seem to have appealed to young James Grieve, and in November, 1859, Mr. Grieve journeyed to Edinburgh, where he entered the employment of Messrs. Dicksons and Co. in their Leith Walk nursery. Here he soon proved his worth, and promotion came, until at length, after about eleven years' service, he reached the important position of general manager to the firm. For the long term of twenty-five years Mr. Grieve held that position, and during that time did much good work. In 1895 he commenced business for himself as a nurseryman, and step by step he has gone forward, until, having taken his two sons as partners, the firm of James Grieve and Sons has became a well-known and important one in Scottish horticultural circles.

The achievements of Mr. Grieve have been many-sided, as befitted a man of his ability and tastes in the position he has occupied. He is a true florist and plant-lover, and his liking for florists' flowers led him early into the culture of the Pansy. This, one of his early loves when with Messrs. Dicksons, he has never neglected, and he is universally acknowledged one of the best judges of the show and fancy Pansy in Scotland at the present time. Much as he has done for the Pansy, however, his fame will largely rest on his work in hybridising the fancy Pansy with several of the species of Viola. As the result, the gardens of the present day owe many of their charms to his labours with the Viola; and a number of the best bedding and show Violas still in cultivation were raised by him while with Messrs. Dickson and since he has been in business for himself. He yet tells with glee of the poor regard in which his Violas were held at the Crystal Palace in 1870. Undaunted, however, he pursued the path of improvement of the Viola, and we can never forget how much this flower and its growers are indebted to this veteran Scottish nurseryman.

In other flowers he also continued his efforts for improvement, and in such varied subjects as perennial Iberises, Pinks, Carnations, hybrid Dianthuses, Rhododendrons and other hard-wooded plants he did much in the way of improvement, and the productions of James Grieve in these fields hold their own in modern gardens.

In fruits, too, he has not been a laggard. Most people know his fine Apple James Grieve, and we are proud that his Apple Bailie Neilson, good though it is, is no better than the one which bears the name of its raiser. When the day comes (may it be far distant!) when Mr. Grieve is no longer with us, his Apple will keep his memory green. Strawberries also owe some of their best varieties to Mr. Grieve.

Some of his most recent work in raising new flowers has been with the early Chrysanthemum, and the Redbraes Nursery has a high reputation for these useful flowers.

But a brief space must be devoted to Mr. Grieve as a judge. His long experience, his keen, critical faculty of observation, and his retentive memory, associated with his sterling integrity, have made him a judge of the first rank, and often is he called upon to adjudicate at the most important shows.

As a member of the Royal Caledonian Horticultural Society and the Scottish Horticultural Association, Mr. Grieve is ever a *persona grata*. In council he is able; in all matters involving attention he is reliable; and his assistance is ever welcomed in connexion with these important Scottish horticultural organisations. As a lecturer and a speaker on horticultural subjects Mr. Grieve is always popular. He lectures admirably, and his speeches abound with shrewdness and humour. Only those who have heard Mr. Grieve propose or reply to a toast can imagine the happy combination of seriousness and wit which makes these speeches such a pleasure to his auditors. They reveal the man himself, earnest, witty, and of wide experience of men and things.

And what can we say of the personality of Mr. James Grieve? The portrait itself gives only a vague idea of the man. Like it is, so far as the appearance goes, but there is much wanting. The cheery greeting, the genial expression, the shrewd look—all of these are nearly absent from the presentment; but many who see it and know him will think of his hearty handshake and his cheery greeting. Many will recall, as they see it, his beaming countenance as we meet him, say, at a good show of the Royal Caledonian Horticultural Society. We wish Mr. Grieve many long years of usefulness and success in the grey capital of the North, and an ever-increasing appreciation from his many friends and from the horticultural fraternity at large of his character and his work.

THE FLOWER GARDEN.

SWEET PEA CHAT.

BETWEEN the present date and the middle of April it is safe to assume that a few odd tons of Sweet Pea seeds will be distributed by the leading firms of the country, and one cannot help wondering where all the plants which come from these seeds go. Taking one variety with another, there will be an average of 5,000 seeds to each pound weight, and multiplication shows that this means about 11,000,000 seeds to a ton. It is certain that at least three firms send out upwards of a ton each, and many others run high up in the hundredweights, so that the figures become at once stupendous and amazing, and serve to demonstrate to what a degree of popularity this most beautiful of annuals has attained. However, it is useless speculating on where the plants go; the seeds are sold and the plants grow somewhere, and it is to be supposed, in many instances, somehow. The spring lists are now published, and growers are again therein urged to order early so as to prevent disappointment.

ROTHESAY—EDINBURGH—MARK'S TEY.—The gardening public knows Dobbies of Rothesay as well as it knows its way down its own garden paths, and it will soon become accustomed to Dobbies of Edinburgh; but to the Sweet Pea enthusiast Dobbies of Mark's Tey are infinitely more important, since it is at this Essex farm that the Sweet Peas, which have added so substantially to the splendid reputation of the firm, are grown. To say that the seeds were produced at Mark's Tey is to stamp them with the hall-mark of excellence forthwith. The firm's notes on the seed crop of 1909 are dismal reading, both from its own and growers' points of view. It records crops that weighed ounces instead of pounds, rendering distribution quite out of the question, and results in the loss this year to growers of such grand varieties as Sunproof Crimson, Edrom Beauty and Earl Spencer, from this particular source at any rate. Some little compensation may be gained from the fact that Mrs. Hugh Dickson and Masterpiece are both procurable, and the firm utters a wise word of warning to the effect that true stocks cannot be procured elsewhere. The former of these was originally named Mrs. Henry Bell Improved, and there is not the slightest question as to the improvement; but whether it would not have been well to distinguish it as Dobbie's strain of Mrs. Henry Bell rather than give it an entirely new name is a matter of opinion. Masterpiece is one of Mr. Alexander Malcolm's productions, and as seen at Mark's Tey last summer was easily the finest lavender. The strong, healthy plants were simply smothered with blooms of splendid size, substance, form and colour. In addition to such American novelties as Marie Corelli, Senator Spencer, W. T. Hutchins, Aurora Spencer and Othello Spencer, this firm catalogues all the leading Sweet Peas in commerce, and the seeds are home-grown.

HOLDFAST SEEDS.—There is something in this name. Those who have grown some of Miss Hemus's varieties hold on to them just as fast as they possibly can, for they are of superb merit. Notwithstanding the fact that Evelyn Hemus behaved very badly last season—scarcely any flowers showed their perfect character—it remains one of the most beautiful varieties we have, as will be abundantly demonstrated again during the present year provided that the weather is favourable.

A NEW SINGLE CHRYSANTHEMUM: MRS. W. PARKER. (*Natural size*).

Paradise Ivory, too, is a splendid Sweet Pea which has the merit of being quite distinct. Practically all the varieties from this source carry the prefix or suffix of Paradise, and they include Helio, Bronze, Maroon, Crimson, Blue Flake, Red, Bicolor, Purple and Mauve, so that one has plenty of choice as to shade apart from Charles Hemus, Zarina, Zephyr, Holdfast Belle, Lucy Hemus, Elaine and others. Then, too, Miss Hemus offers her own strains of all the leading sorts in general commerce.

LINCOLNSHIRE SEEDS.—Lincolnshire is celebrated for its Potatoes, and Messrs. Gilbert and Son of Dyke, Bourne, have given it an enviable reputation for Anemones, while they are now adding to its lustre by the wide distribution of Sweet Peas. A feature of their catalogue which strikes me as unique is that they give the average of percentag

of purity of every stock as proved in their trials last season. The list of varieties is very complete. SPENCER.

CHRYSANTHEMUM MRS. W. PARKER.

THIS new variety is a remarkably free-flowering one and should prove a good market flower. The single blossoms are of good shape, and frequently as many as ten are found on one spray. The colour is white, faintly tinged with pink. It was shown before the Royal Horticultural Society on the 7th ult. by Mr. F. Brazier, Caterham, when it received an award of merit.

COLOURED PLATE.

PLATE 1391.

BARBERTON DAISIES.

NEW HYBRID GERBERAS.

WHEN Gerbera Jamesonii, popularly known as the Barberton Daisy, was first introduced just over twenty years ago, it was regarded solely as a desirable flowering plant for the greenhouse or warm border outside. These anticipations have been fully realised, and what is more, it has, in conjunction with other species, given rise to a delightful series of hybrids destined, no doubt, to become exceedingly popular.

The credit of this wonderful creation (for such it would be termed on the other side of the Atlantic) is due to Mr. Lynch of Cambridge, whose group of hybrids which was put up at the Temple Show aroused an unusual amount of interest, and a silver cup was awarded it.

We have before now been told by Mr. Lynch that the first hybrid was made between Gerbera viridifolia, a species with small white flowers, and G. Jamesonii, the result being various shades of colour from white to deep pink. Gerbera Sir Michael, a yellow form of G. Jamesonii, was sent direct from Natal by Mr. W. R. Adlam, one of the first crosses being between this yellow-flowered variety and G. Jamesonii itself, the result being the variety Brilliant.

Mr. Lynch continued his work until, as above stated, he was able, in 1904, to show a group of these plants whose flowers varied in colour from pure white to deep scarlet, through various intermediate shades of buff, pink, yellow, orange and light scarlet.

This work once begun was continued on a much larger scale than is possible in a botanic garden by M. Adnet of Cap d'Antibes, who commenced with a few of Mr. Lynch's hybrids, and by raising seedlings in a wholesale manner his collection soon became a very extensive one. Veritable sheaves of cut flowers, all colours and shades being represented, were exhibited at the last Temple Show and admired by everyone. A particularly striking feature was the extreme vigour of the flower-stems, far surpassing in stature anything I had ever met with in G. Jamesonii, while M. Adnet has, I believe, found that they are hardier than this species.

In his favoured clime M. Adnet obtains large quantities of seeds, which he has placed in Messrs. Veitch's hands for disposal. A surprising feature about these seeds is the quickness with which they germinate, for some that I sowed and placed in an ordinary greenhouse were above ground in less than a week.

HOW TO GROW THE BARBERTON DAISIES.

Sown early in the spring they will form neat little plants by the autumn, and a few may show flowers the second season, but they are, at least in our climate, not at their best until the third year. These Gerberas may be grown in pots in a sunny, airy house, but they are decidedly superior when planted out in some loamy soil in a well-drained and warm border. In the Royal Gardens, Kew, they are planted in a narrow border on the sunny side of the Orchid House, and are objects of great beauty for a long time. At Cambridge the Gerbera thrives at the foot of a wall protected during winter by glass lights from rain and cold dews, while they get free ventilation. H. P.

THE ROSE GARDEN.

HOW A ROSE PERGOLA WAS MADE.

LIKE the majority of gardening operations, the making of a Rose pergola is very interesting work, and when well done is a continual source of great pleasure, besides being a really valuable asset to the general beauty of the garden in which it is erected.

That shown in the illustration was made between January and March of 1906, when the ground was workable, neither too frost-bound nor too wet. The end from which the photograph was taken offers room for extending the length of the pergola should occasion arise for so doing.

A ROSE PERGOLA FOUR YEARS AFTER ITS FORMATION.

At present it is about 65 feet long, and stands at the bottom of the fruit garden, separating that from the croquet lawn. Its width is 5 feet 6 inches from pole to pole, the distance between each arch 8 feet, and the top cross-piece also about 8 feet from the ground. Larch poles having tarred ends, with the side branches trimmed in to about 1 foot, were used for the Roses to be fastened to, and the whole pergola was made more secure by a piece of wire being twisted round the centre of each top piece from end to end. In addition to this each pole is supported by a small rod of solid iron about 6 feet long, 2 feet or more of which is driven in the ground, and the pole and rod wired together top and bottom. Those who are making pergolas will find this a most valuable hint, especially if they reside in exposed localities. The iron rod will add years to the life of the pole, and it is safe in the wildest weather. Each planting hole was made 1 foot 9 inches square and the same deep, but at the bottom a further cup-like hole was scooped out 3 inches deep in which to rest the pole, for, of course, the fixing of the poles must be done when the holes are quite clear. Previous to filling in with soil a layer of partially decayed manure was placed at the bottom of the holes, and the Roses were planted on the outside of each pole, so that the centre pathway would be more free for walking. The following are a few of the varieties that were planted: Blush Rambler (first on the left), Leuchtstern (first on the right), Dorothy Perkins, Una, Jersey Beauty, Philadelphia Rambler and Psyche.

Ken View, Highgate, N. C. T.

ROSES AS COAT FLOWERS.

A FEW Roses are much more suited for the coat than others, and a list of some of the best may be welcome during the planting season. The Crested Moss is always popular, but, unfortunately, it is far from being a continuous bloomer. Lady Battersea is invariably good for the coat in its earliest stages, and is also very sweet-scented. This is cherry crimson and a very free bloomer all the season. The Dandy gives a capital coat flower and is one of the darkest we have; perfect in shape, lasts well and is sweet-scented. Few can surpass William Allen Richardson, and it is undoubtedly the best deep orange yellow. A pretty clear straw yellow is provided by Mme. Pol Varin-Bernier; this stands well and is especially sweet. As a pink I do not think we can improve upon Killarney when not too closely thinned. Niphetos is the best white, but apt to be too delicate in the open; while Frau Karl Druschki is generally too large. Mme. Jean Dupuy stands well, and I think it much better than the hardy old favourite Homère. Crépuscule, a newer Noisette, is good; buff, yellow and copper. Edu Meyer, when not thinned, supplies a pretty coppery flesh bud and produces quantities through the summer and autumn. Richmond and Liberty give clear crimsons and are always of good form. Two or three buds of Elisa Robichon (wichuraiana) are very showy and attractive. Papa Gontier and Warrior are extra long in the bud and deep carmine in colour. Corallina produces large quantities of soft carmine flowers late in the season, and this and Mme. Antoine Mari are the latest to bloom. A. P.

GARDENING FOR BEGINNERS.

PRUNING THE PEAR TREE.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—Those beginners in gardening who are possessed of the praiseworthy desire to grow vegetables and to exhibit the same at their local show must make a point of growing Onions, and to get large, solid bulbs of these a start may soon be made. Where a hot-bed has been formed, as advised last week, it should, in the course of a week or so from now, be ready for seeds. In the meantime we may prepare the soil and receptacles in which to sow the early Onions, as to obtain extra large specimens it is necessary to raise them under glass. Where plenty of room is available the best plan is to sow three or four seeds in a 2½-inch pot, and as soon as the seedlings are 1½ inches high thin them to one in each pot. Where space is valuable the seeds may be sown thinly in shallow boxes and the seedlings subsequently potted singly into small pots. Drainage in all cases must be first-class. Suitable soil is composed of good loam two parts, clean sand and thoroughly decayed manure or leaf-soil half a part each. Although the seed may safely be germinated in a temperature of 70° Fahr., the seedlings must not stay in such warmth many days, and must gradually be inured to the lower temperature of 50° Fahr., taking care all through their growth to give them plenty of fresh air and to keep them near the glass.

Trees and Shrubs.—Among the many beautiful hardy shrubs that flower during the spring months none is more universally appreciated than the Golden Bells, as the Forsythias are commonly called. Attention is drawn to them now as they are exceedingly easy to grow, perfectly hardy and give large returns for a little outlay; hence they may be regarded as ideal shrubs for the novice to try his or her hand on. Planting may be done from now till the end of February, whenever the ground is not frozen, but the earlier they are put in the better. The best of the family for general culture is F. suspensa, which forms a rather loose-growing shrub 10 feet to 12 feet high when allowed to grow in a natural state, its pretty brown stems being thickly clothed with golden bell-shaped flowers in spring. Where space is limited it may be cut hard back, say, to within 1 foot or 18 inches of the ground, each year directly after flowering, new shoots for blossoming the next year being produced the ensuing summer. Although it will do well in almost any good garden soil, heavy manuring after pruning must be resorted to where hard cutting back is practised.

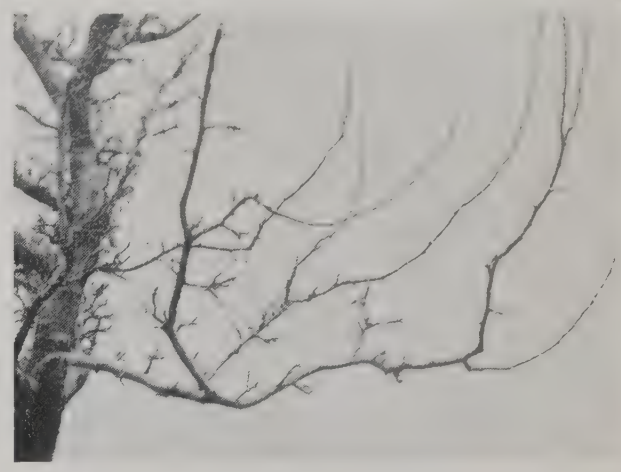
1.—STANDARD PEAR TREE EASTER BEURRE BEFORE WINTER PRUNING. THE TREE IS ABOUT TEN YEARS OLD, AND BORE A GOOD CROP OF FRUIT LAST YEAR.

Greenhouse and Frames.—Two of the most highly prized plants of the greenhouse which can be raised from seeds without a great deal of trouble are Gloxinias and tuberous Begonias, and the present is a good time to sow the seeds. These are exceedingly minute and, needless to say, should be procured from a firm of good reputation. Soil in which to sow the seeds should be composed of equal parts of good loam, peat and silver sand, the whole to be thoroughly mixed. Shallow pans or boxes, specially well drained, form the best receptacles, and the soil must be made moderately firm in these, taking care to make the surface level and smooth by gently pressing it with the bottom of a clean pot. Water the soil carefully, leave for an hour or two, and then sow the seed very thinly on the surface, subsequently giving the whole a mere dusting with silver sand. Cover each pan with a pane of glass and also brown paper, and stand in a temperature of 65° to 70° Fahr. to germinate. As soon as this has taken place, remove the brown paper and glass, and when the leaves are the size of very small Peas the young plants must be carefully transplanted 2 inches apart to other boxes filled with the same soil mixture and kept near the glass, but shaded from bright sunshine. Subsequently they are potted up singly into 3-inch pots, and later given pots of larger dimensions. Plants raised thus should flower early next autumn.

Fruit Garden.—In country districts the Gooseberry bushes and Plum trees must be carefully watched at this season, as it is just now that bullfinches take their fullest toll of the buds. We are often told that these beautiful birds only remove those buds which contain insects, and, personally, I very much wish that I could endorse such a view. Unfortunately, after some ten or twelve years' close observation, I am bound to say that such is not the case. They seem to find sustenance in the hearts of the buds, which they remove in a systematic manner, the result next summer being shoots devoid of leafage and fruit. Gooseberry bushes and small Plum trees may be netted over with old fish netting without much difficulty; but larger Plum trees can only be protected by shooting the birds, a drastic and lamentable, but nevertheless necessary, course to take. Very small shot should be used and the birds shot when on the wing, otherwise the trees will be seriously damaged. In case I may be criticised for recommending the destruction of bullfinches, I can assure all lovers of birds that no one appreciates their beauty more than I do; but drastic action must be taken at times by those who garden. A. A.

PRUNING THE PEAR TREE.

To those who possess a garden of fair dimensions there is invariably born a desire to plant fruit trees, and one subject that never fails to attract the would-be cultivator is the luscious Pear. Doubtless it has been the lot of the reader to visit gardens where the intentions of the owner have been of the very best, but who, through want of knowledge how to prune his Pears, has done this important work in a very faulty manner; or he may have left his trees in the hands of a so-called jobbing gardener who possibly has had little or no experience in pruning fruit trees. The result in such circumstances can very well be imagined.



2.—SECTION OF THE PEAR TREE SHOWN IN FIG. 1. COMPARE THIS WITH FIG. 4.

There is the greatest possible satisfaction to be obtained when pruning is properly understood and when the grower is able to show as a consequence of his treatment of his trees a good crop of fruits in the autumn months. The question that arises at the inception of the work is, What is pruning? What is the meaning of the word? Pruning means the shortening to certain well-defined lengths the shoots or growths of trees. The object of pruning is of a twofold nature. (1) It is carried out for the purpose of producing trees of a symmetrical character; and (2) in order to ensure or facilitate the development of blossoms and, subsequently, fruit.

In the present instance I propose to deal only with standard Pear trees and those that are usually to be met with in gardens after growth of several years. Most of us are familiar with such specimens, and few of us know how to deal with them. Fig. 1 represents a nicely grown ten years old tree of Pear Easter Beurré. The tree has been pruned regularly and summer-pruned last season, when it bore an excellent crop of fruit. Readers should make a careful scrutiny of this shapely tree and its several branches, from which it will be observed there are evolved numerous shoots of the past season's growth. Pruning is best done from November to January inclusive, although many growers prefer the last-mentioned month to any other. This will enable the beginner to enter into the work forthwith, but care should be taken that the frost is out of the wood before cutting. No hard-and-fast line can be followed in regard to pruning, as varieties differ so much in themselves. Generally speaking, the rule should be observed of simply keeping the tree in shapely proportions, thinning out the crowded branches and keeping the centre open. Extra vigorous shoots should be shortened back. Light and air are two most important factors in successful culture.

As summer pruning was done in this instance, this leaves less to be done at the present period. That the method of pruning may be better understood by the reader, a section of the tree shown in Fig. 1 before pruning is portrayed in

Fig. 2. Frequently where a Pear tree has been neglected the shoots are developed in straggling fashion; these should be cut back into shape, and any branches crossing each other and growing towards the centre of the tree must be removed. The use of a sharp knife is most essential, as this will enable the operator to make the cuts perfectly clean, and these will heal quickly in consequence. It is quite possible that some of the branches may be too big to be detached with a knife; in such cases use a saw very carefully, and as a precautionary measure neatly pare off the edges of the damaged bark. Some successful growers make a point of painting the damaged surfaces of the larger branches with tar, as this acts as a preventive against fungoid diseases and also assists in the speedy healing of the wounds.

Those who have young standard trees in which the shoots are taking an undue lead of others should reduce them to about one-third of their length. Dead wood should never, of course, be tolerated, and long, unsightly spurs, as well as those of a barren nature, should be cut out.

Fig. 3 shows the same tree as represented in Fig. 1. Here it will be noticed that a great deal of wood has not been cut out, because the tree has been systematically thinned out year by year and superfluous shoots cut back. Note the open character of the head and how well disposed the branches are. In Fig. 4 the reader will notice the same section of the tree as was portrayed in Fig. 2, with the necessary thinning out and cutting back carried into effect. The growths retained give a fair indication of the probable symmetrical shape of the tree in the next fruiting season. From this series of illustrations it should not be a very difficult matter for any reader who is a beginner to deal with his own trees in like manner. D. B. C.

PLANTS COVERED WITH SNOW.

WHEN plants, such as vegetables, herbaceous flowers and dwarf shrubs, are covered with

3.—THE SAME TREE AS SHOWN IN FIG. 1 AFTER WINTER PRUNING HAS BEEN DONE.

snow at the same time that there is a severe frost, they will not suffer as much as others fully exposed. During a very severe winter about twelve years ago, plants, vegetables especially, suffered more in the Southern Counties than in the North. In Yorkshire there was a heavy snowfall, and the vegetables were thus protected considerably. In the South there was not much snow, but severe frost prevailed, and nearly all winter green crops were killed. Wheat in a field always thrives well after being buried with snow during a frosty spell of weather. Inexperienced cultivators should allow the snow to remain on all plants except those that it would damage by its weight. The covering of snow must be allowed to melt in a natural way, too; then the buried plants will be gradually exposed to any sunshine that may come.

HOW TO TREAT OLD ZONAL PELARGONIUMS.

IN greenhouses in which a higher temperature than 50° cannot be maintained during the most favourable weather in winter-time, Zonal Pelargoniums will suffer to a certain extent. In frosty periods the plants can only be kept just safe, and, of course, when the thaw comes after each frost there is a lot of moisture in the structure. This excessive moisture must be got rid of by the warming of the house and free ventilation while the weather is favourable. At the present time the plants must be closely examined and every decayed leaf removed; also any stems that are turning black and decaying should be cut off, as the decay will rapidly reach the main stem and cause the total loss of the plant. Directly the month of February comes the sun's rays get stronger and of longer duration, and the plants once more show signs of active growth. This is the time to prune old specimens, to insert the cuttings made from the prunings, and to repot the plants for the first time in the new year. SHAMROCK.

THE TOWN GARDEN.

OVERHANGING TREES.—That the jerry-builder and contractor delight to complete their work—put on the finishing touches as it were—in their own sweet ways there is no gainsaying, one of their chief weaknesses being the crowding into small villa gardens of a superabundance of large growing trees that presently become a source either of trouble or annoyance to the householder. The trees are usually those of the quick-growing type, as the Lombardy Poplar, or its relative the Black Italian Poplar, the Lime and other such things, whose roots, spreading far and wide, rob the soil and render it quite unfit for the cultivation of either fruits or flowers. A favourite position for planting these things is near the partition boundary fence, and in this way both roots and branches are continually trespassing on to the adjoining property. Now, to those who delight in gardening there can be no greater annoyance than that of having to contend against such things, and the trouble and annoyance are greatly aggravated when the trees are planted on the adjoining property. It may be that, having had a quiet chat with the people next door, a mutual arrangement for lopping the trees may be arrived at, and in any case this is much the better way out of the difficulty. Failing any such amicable arrangement, however, every householder should know that he has a perfectly legitimate right to cut away all the overhanging branches that proceed from trees planted in another garden. The branches may be cut away in a vertical line with the party-wall or fence, and he may also cut away the roots below the ground level if he thinks fit. The latter will be best done by opening out a narrow trench and cutting away all roots that appear in the excavation.

CUTTING LAURELS.—The cutting back or pruning of overgrown bushes of common or other Laurels should now receive attention; indeed, there is no better season than the winter for doing such work. Frequently in the course of years the plants become long-stemmed and bare of leafage, the result being a good deal of unsightliness that is preventable. In some few positions in the garden or the shrubbery the common Laurel is still tolerated; but for the small garden it has but one rival among shrubs

4.—THE SECTION SHOWN IN FIG. 2 AFTER PRUNING HAS BEEN DONE. NOTE THE DIFFERENCE IN THE TWO.

of a voracious type, and that one is the Privet, the latter the meanest thing in the shrub line, and for its size the greatest robber of the soil that any garden could contain. Where, however, the Laurels are in existence and cannot be removed to give place to better things, the fact that they will endure any amount of pruning should be borne in mind. The best tools are the saw and the pruning-knife, and the plants may be cut hard back with impunity. The hand-shears should not be used, because of its disfiguring effects upon the leafage, which remains unsightly for a long time.

PROTECTING ROSES.—Newly planted Roses, no matter to what section they belong, should receive a protection of light litter about their stems where this has not already been done. It is well, too, in the case of strong-growing maidens of the Hybrid Perpetual class that the longest shoots be shortened back, and thus minimise the ill-effects of swaying to and fro during strong winds. In heavy and moist clay soils not only those freshly planted, but the more established bushes are often swayed hither and thither by the force of the wind till a complete funnel-shaped cavity is formed in the soil by the stem. Almost water-tight in character, these cavities are a source of danger in times of severe frost in consequence of the stems being in direct contact with the ice. Where the Rose garden is an exposed one, the plants may be made secure by fixing a stout wooden stake into the soil, allowing it to cross among the stronger-growing branches.

ZONAL PELARGONIUMS.—Quite a large number of those who reside in the vicinity of large towns are the possessors of a small greenhouse, and the above—the "Geraniums" of the amateur—are sure to be included therein. Just now the old plants will need attention—I mean those plants lifted from the ground after flowering last year, and usually planted in boxes in garden soil. But the common garden soil that suited them so well during the summer-time is by no means an ideal one for them in winter, and it is rendered worse by being made constantly wet, blackened stems and decay being the result. At the present time, when the root-fibres of these plants are more or less inactive, and where a temperature just excluding frost is chiefly aimed at, all Pelargoniums, whether Ivy-leaved or the above, intended for stock purposes should be kept in almost dust-dry soil. By relegating such things to the worst position the greenhouse affords, viz., beneath the stage, and keeping the roots in uncongenial and often unduly wet soil, the best results cannot be looked for. E. H. JENKINS

BOOKS.

The Garden Annual.*—This useful volume is an absolute necessity for all nurserymen, seedsmen and others engaged in horticultural business, and evidently the publishers have spared no pains to make it as correct and up-to-date as possible. Even private gardeners will find a lot of useful information among its pages. It contains, among other things, a calendar showing dates of various meetings arranged by the Royal Horticultural Society, a classified list of the leading firms in the horticultural trade, revised list of nurserymen, seedsmen and florists in the United Kingdom, the principal gardens of the United Kingdom with the names of owners or occupiers, list of head-gardeners, list of principal horticultural societies with names and addresses of secretaries, and certificated plants, fruits and vegetables in 1909.

All About Sweet Peas.†—This, the fifth edition of Mr. Robert Sydenham's useful little book, is a decided advance on its predecessors, and should be in the hands of all who grow or love Sweet Peas. Evidently Mr. Sydenham has been to a vast amount of trouble to make its contents as complete and reliable as possible. No less than 711 varieties are described in alphabetical order, the respective merits of these being denoted by one, two or three stars. Another most useful feature is the lists of "too-much-alike" varieties. Here we find in some instances as many as from twelve to twenty different names given to practically the same variety, and Mr. Sydenham has done yeoman service in bringing these to notice. The cultural notes and details about exhibiting are very lucid, and altogether the little book is a most praiseworthy one.

The British Fern Gazette.—The second quarterly number of this journal, which is edited by Mr. C. T. Druery, V.M.H., F.L.S., and published by the British Pteridological Society, Kendal, Westmorland, contains much interesting information. The Editor says in his second editorial note that "the Gazette is intended to be the medium of communication between all lovers of British Ferns, and cordially invites contributions of any notes of mutual interest or enquiries in that connexion." It is to be hoped that the members will do their best to increase the membership of the society, already largely augmented by the issue of the Gazette.

A Book About Sweet Peas.‡—Previous to reading this book, we thought that the literature devoted to this charming flower was sufficient for a few years at least; yet, so distinct is this from all its predecessors, and so gracefully and interestingly is it written, that we feel sure all lovers of the Sweet Pea will give it a very hearty welcome. In its preparation Mr. Wright has shown his usual talent for combining an interesting style with many useful facts, and it is difficult to imagine that anyone who has this book for reference can fail in growing, raising new varieties, or exhibiting Sweet Peas. Lack of space will not permit us to enter into details concerning the various chapters, and we must perforce content ourselves with a brief summary of its contents. The chapter on the fertilisation of the flower is a most important one, and Mr. Wright advances many hard facts in support of self-fertilisation to the exclusion of all other natural means. The work of artificial crossing is fully yet lucidly described. Another important chapter is devoted to soils and manures for Sweet Peas, and this is pregnant with information of a valuable and reliable character. Enemies of Sweet Peas, which are, unhappily, on the increase, are fully dealt with and the best means of combating them described. Other interesting chapters deal with the Sweet Pea as an exhibition flower; as a market flower; Sweet Peas under glass; in English, Scottish, Welsh and Irish gardens; in the British Colonies and in the United States. In the chapter on "Woman's Influence on the Sweet Pea," the author pays a fine tribute to the influence exercised by ladies on this flower, an influence that we fear is too often overlooked. The Sweet Pea grower's A B C is by no means the least useful section of the book. There, in alphabetical order and in concise form, the Sweet Pea lover will find particulars of the leading Sweet Pea growers and raisers as well as a mass of other information likely to be needed. The numerous illustrations are nearly all of exceptionally high merit, and the practical diagrams we regard as of much value. The photographic reproduction facing page 80, depicting a good and a bad spray of Sweet Peas, is very useful indeed, and that of a pot of Sweet Peas grown from one seed and facing page 97 proves the flowering capabilities of a well-grown plant in a most pronounced manner. A slight error occurs in the description of the coloured plate facing page 56, the name A. D. Cook being given where it evidently should have been A. J. Cook. This book we regard as a cheap, reliable, interesting and well printed and bound guide to the culture, exhibiting and marketing of the Sweet Pea.

* "The Garden Annual, Almanack and Address Book for 1910." Price 1s.; cloth covers, 2s. The Publisher, 17, Furnival Street, London, E.C.

† "All About Sweet Peas." By Robert Sydenham. Fifth edition. Price, in stout cloth covers, 6d.; in leather covers, 1s. Robert Sydenham Limited, Tenby Street, Birmingham.

‡ "A Book About Sweet Peas," by Walter P. Wright. Price 2s. net. Messrs. Headley Brothers, Bishopsgate Street Without, London, E.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Daffodils for profit (*D. S.*).—Your question is more than a little vague, though, if we dispense entirely with any qualifying observation, it might be answered with an affirmative "Yes!" But whether a clear profit of £26 per year could be obtained is another matter, and would depend upon a variety of circumstances. We presume the amount stated to be intended as clear profit after deducting living and all other expenses in connexion with the growth of the above, and the correct answer would very much depend upon the varieties grown, whether the flowers would be forced or marketed as an open-air crop, and the amount of ground at disposal. That the ground would be rent free is a decidedly favourable item; but no person, single-handed, could deal with a large crop of Daffodil blooms sufficiently quick during their season of flowering. As an outdoor crop there is very little margin for profit, even for the experienced man; while, if regarded from the forcing standpoint, there would be the cost of greenhouse, boiler and pipes and fuel. On an acre or more of land assistance would be required for picking and bunching, and the season of the outdoor crop is at times very short. This naturally means an over-glutted market, and the returns so low as to barely pay the expenses. Then, again, the question arises, Could the blooms be marketed locally? which is a most important item. We think you had better give us some further information, and particularly as to the size of the garden and what stock, if any, is available.

Lilies going wrong (*Amateur, Bickley*).—The grubs are those of flies and beetles, and are probably not the cause of the trouble with the Lilies. From your description of the symptoms exhibited it appears probable that the Lilies have been attacked by the fungus Botrytis, which causes the well-known Lily disease. This disease is most difficult to deal with, and although many remedies have been suggested, none has proved thoroughly satisfactory. It would seem best, perhaps, to remove the whole of the surface soil to the depth of about 2 inches, and replace with fresh containing as little decaying matter as possible, mixing with it flowers of sulphur. It is by no means certain that this would prove an effective remedy, but it is certainly worth a trial.

Water tank for Lilies (*G. B. G.*).—We think with you that it would be an improvement to have a tank for some of the lovely coloured Water Lilies we now have in place of the old pergola, especially as it hides the view from the house. The disturbance of the water by dipping cans in for watering purposes would not conduce to the success of the growth of the Lilies. Could you not have the rain-water collected into a large tank placed in some inconspicuous corner? The water could be conveyed to the tank by laying down a pipe, having a tap to regulate the supply. A supply could also be drawn from the same source for watering purposes by inserting another tap in the tank. The water in the Lily tank would have to be kept sweet by frequent replenishings; so you will have to consider whether your supply from this source alone would be adequate.

TREES AND SHRUBS.

Deciduous shrub with copper-coloured leaves (*H. E.*).—You will find that the Purple-leaved Nut (Corylus maxima atropurpurea) will be suitable for your purpose. This grows more than 3 feet high when allowed to grow unchecked, but it stands pruning well and may with ease be kept within the desired limits. You will find it more satisfactory to plant your shrub in the border and prune it regularly rather than starve it in a pot to keep it dwarf. The only thing that can be urged against the above plant is that it is rather heavy in outline. Should a lighter-outlined plant be desired, you can try Acer palmatum atropurpureum. Japanese dwarfed trees are produced by a process of starvation. The roots are confined in the smallest possible receptacles and growth is retarded to the utmost limit. No repotting is done for very many years, and the plants practically exist on weak stimulants given when watering. The amount of available food material contained in the soil in the pots is unworthy of consideration.

When to prune a Guelder Rose (*T. B.*).—If you wish your Guelder Rose to grow into a large specimen, it may be left to grow unpruned, and will flower freely in this way. Should it, however, get too crowded, the weaker shoots may be thinned out immediately the flowering season is past. If your intention is to keep it comparatively small, it may be pruned back directly the blossoms are over. The shoots may be cut back to within two or three eyes from the base, and any useless ones removed altogether. The Guelder Rose must not on any account be pruned now, for the flower-buds for next season's display are already formed, and some of them might be cut away.

ROSE GARDEN.

Rooting tall standard Briars (*Amateur Budder*).—If you can obtain the tall Briars with a portion of the old root stump attached, such Briars will emit roots if the "knob" or root stump is carefully cut over with a billhook and sharp knife. But to cut off these Briars without any rootstock at the base is simply to court failure. The method advocated by a correspondent some time ago was to take such Briars and split up their ends, he contending that from these split parts roots would form, as they did, but so very small and puny that they were totally unable to support a long Briar with the necessary sap to enable it to grow properly. Perhaps in time roots enough would form, but it would never pay anyone to make a large plantation of such Briars with a view of forming them into good large-headed standard Roses, and unless a standard Rose possesses a good vigorous head it is a most wretched-looking

object. If you can saw or chop off a piece of the rootstock, if only 2 inches or 3 inches long, you will find such Briars will grow all right and be available for budding next July, providing you plant them at once. Fruit stocks planted could be budded in August next, but they would not be in a fit condition to graft this coming spring, as they must be established for some time. You can obtain quite as good a plant by budding as by grafting. Should your buds fail, then the stocks could be grafted in March, 1911.

Rose foliage blighted (*Sinclair*).—The foliage you send is badly attacked with black or sooty mildew. It is one of the most troublesome forms of fungoid pests, and is not easily eradicated in a cold house. You could not do better than give the plants a good drenching with Cyllin Soft Soap made up into liquid form. This is procurable from Jeyes or, doubtless, through any chemist. The woodwork could be well scrubbed with paraffin emulsion, as at this time of year, when plants are dormant, no harm would follow. You can make the emulsion as follows: Dissolve one quart of soft soap in two quarts of boiling soft water. Remove from the fire, and while still boiling add one pint of paraffin oil and immediately churn the mixture with a small hand syringe. This could be diluted with about five times its volume of water for the woodwork, and if diluted with ten times its volume of water, the Roses could be syringed with this instead of the Cyllin Soft Soap.

FRUIT GARDEN.

How to prune cordon Pears, Apples and Plums (*P. C. H.*).—The above trees may be pruned at any convenient time while growth is dormant, say, from November to February. There is no actual benefit accruing to the trees that we know of by pruning at any particular time within this specified period. The general practice among experienced gardeners is to start pruning at the end of November, in order to complete the work, if possible, before hard weather sets in, which it generally does soon after Christmas. We consider this system a good one. As regards the cutting back of the main shoots, the strength and length of the shoots themselves must determine this. For instance, if they are weak and spindling they should be cut back to half their length, or less, with the object of inducing these to produce a stronger main shoot next year. If long and strong, on the contrary, less in proportion should be cut off. In the case of your 12-inch shoots, which we take to be of moderate strength, we should reduce them by 4 inches and the larger one by 8 inches. From your description of the mass of roots your tree possesses, we think they would have to be cut too severely in order to get them into a 10-inch pot, and fear the tree would be crippled and weakened in consequence. We, therefore, advise you to plant in the larger pot. Never mind if some of the roots have to be twisted to get them in. The larger and longer roots may be shortened in the same proportion as the branches with advantage. Use good turfy loam to pot with.

Mealy bug on Vines (*G. U.*).—It is most difficult to completely rid Vines of this pest. There are many methods recommended by different growers. We have tried them all, and have come to the conclusion that there is not a better way than the following: In the first place rub off with the hands all the rough outer bark (but do not peel with a knife); then give the Vines a good washing with soft soap and warm water, making a strong lather—using, say, ½lb. of soft soap to a gallon of water. This should be rubbed into the bark of the Vines with a fairly hard brush, taking care not to touch the fruit-buds. Having done this, prepare a dressing of Gishurst Compound (directions for the strength to use are supplied by the vendor). Apply carefully to every part of the Vine excepting the buds. This will kill all the bug it comes in contact with. But do as you will, and be as careful as you may, there will be sure to be some left behind. These, as soon as heat is applied to the Vines in spring, will immediately reappear on the surface, and if not destroyed at once will increase at such a terrible rate that the condition of the Vines will soon be as bad as it was before. Now is the grower's opportunity, and should be taken advantage of in grim earnest, or his labour will be in vain. As soon as the Vines have been started into growth in spring, let a keen look-out be kept every other day for a month, or longer if necessary, for the reappearance of the pest, and let every one seen be touched (without touching the Vine, if possible) with a camel-hair pencil dipped in paraffin. This is instant death to the bug. If this destruction of the enemy is religiously persevered in for the time stated, you may completely rid your vinery of this loathsome parasite. The surface soil of the vinery (if it is an inside border) should be removed to the depth of 3 inches and replaced with new turfy loam with a slight sprinkling of bone-dust. It is more than likely that the pest in large numbers will be secreted in the surface soil.

Grafting Morello Cherries on wild Cherry trees (*Wild Cherry*).—We think the best way to proceed in the case of your vigorous wild Cherry trees will be to well shorten back the strongest of the branches and graft these in preference to grafting the stem alone. A more shapely and a larger tree will be formed in this way in less time than the other. Cleft grafting will answer the purpose as well as any other. Success in grafting depends on the operator getting the two faces of the barks together, the stock and scion or cutting, as closely as possible, so that as soon as growth commences they will easily unite. It will be well to insert two scions to each branch, in case one fails to unite. If found too crowded afterwards, one can be cut away. In the case of the thinner trees which you wish to form into fan-shaped ones, there is nothing else for it than to cut the stems low down as you suggest and cleft graft them. If the grafts take well and the stocks are healthy it is wonderful how quickly a new tree is formed in this way. The scions or cuttings which you wish to graft should be cut from the trees as early as possible, tied together in bundles and buried in soil to three-parts of their depth, and kept there until wanted for use. The middle of March is a good time for grafting. The sap is then usually running freely.

Fig tree not ripening its fruit (*G. Badder*). Evidently the fruit which is produced by your tree grows on the shoots of this year's growth, and is formed too late in the season for it to ripen. The only thing we know of likely to help the fruit to ripen earlier in the future is for you to cut out the weakest of the shoots in order to admit more light, air and warmth among the fruit. If this is done soon after the fruit is formed, it should help the fruit to ripen in the end materially. The best thing to do would be to erect a glass frame over the tree. It need not cost very much.

Old over-grown fruit trees (*G. B. G.*).—We think the best thing you can do with your old Apple and Pear trees is to well thin out the wood, especially out of the middle of the trees, and to cut back all side shoots, the growths of last year, to within three buds of their base. The terminal or leading shoots of last year's growth (of the main branches) should be shortened by one-third their length only. Above and beyond this a lot of the dead or dying and weak growths on the old trees should be clean cut out in order, to use a common term, to let light into them; never mind if one or more large limbs have to be sacrificed. In pruning old trees of this description it is an excellent rule to bear in mind that at least a distance of a foot should separate each of the main branches of a tree from the other. In the case of the old trees which are strong and vigorous, as, for instance, the Pear trees near the Plum wall, we advise that they be root-pruned halfway round only this year, reserving the other half for next year. By this extension of time in root-pruning the danger of too severe a check or permanent injury to the trees is obviated, and the change to fruitfulness more certain and better secured. The trench which has to be cut in order to get at the roots to prune them should not again be filled by the soil taken out, but by turfy loam cut into pieces the size of one's fist, adding a quart of bone-meal to every barrow-load of soil, treading the whole firmly down, and serving the other half the same next year. The result of this root-pruning will be that immense masses of new fibrous feeding roots will be emitted into this new soil, enabling the old trees to bear far better quality and heavier crops of fruit. We do not think it would be wise to cut back the old Pear trees sufficiently hard to form them into moderate-sized pyramid trees, but there is no reason why they should not be removed and planted somewhere else at the end of two years after root-pruning. The new roots would help them to go through the ordeal safely With regard to some of the old trees you have which are in weak and indifferent health, you might give them another chance, simply pruning them in the ordinary way and placing a layer, 3 inches deep, of rotten manure over the roots (on the surface) as far as you think they extend. With reference to the Plums on the wall, we should be content, for another year at least, to let them be as they are, letting light into them by pruning as advised for the Pear trees. Most likely they will give you plenty of fruit this year. The thinning out of the Pear trees in front will admit more air and light to the wall, and so give the Plums a little better chance. Probably the Cherry trees had too many flowers on, more than the trees had strength to set. Thin them out well this winter and note the result this year. As regards the Morello Cherry trees, once old trees of this fruit show signs of decay they never do much good afterwards. It is better to pull them up and plant young trees.

Apple trees diseased (*Blackthorn*).—The branches received are practically dead, and if the majority of those remaining on the trees are in the same condition as these, you would be well advised to uproot your trees and burn them out of the way, as besides being so sickly they are infested with two troublesome enemies which are difficult to destroy, namely, woolly aphis and scale. If you prefer to try and bring them round, the best thing to do, as soon as they are pruned, is to spray them with caustic alkali wash, which may be had from seed merchants and dealers in garden sundries who advertise in our columns. This spray will destroy most of these insects, especially if the trees are sprayed again in April just before they begin to grow. If the trees are young—say, from five to ten years old—we should take them up and replant in new turfy loam, adding half a gallon of lime and a quart of bone-meal to every barrow-load of loam. Cut away the long, straggling roots to within 3 feet of the stem of the tree, and be careful to press the new soil firmly round the roots in replanting. If they are above this age it would be better not to replant them, but to spread the bone-meal on the surface of the ground and lightly fork it in, adding afterwards a top-dressing of rich farmyard manure round the roots, laying it on about 4 inches deep.

MISCELLANEOUS.

Violets for inspection (*Tyke*).—No disease is present, but the crowns do not look very strong. They are rooting well, and no doubt will throw some flowers. The dead leaves should be removed and plenty of air given.

Pond in Oxfordshire garden (*J. N.*).—Unless the pond is a naturally fed one capable of retaining water, or is liberally fed from other sources, so that a little waste is not observable, some provision for retaining the water in the pond should be made. You say nothing concerning the supply of water. In certain instances a puddled clay bottom and sides are ample; in others, cement and concrete are requisite. Where the subsoil is clay, the puddling usually suffices; but where gravel and sand prevail, cement and concrete should be used for sides and bottom. Some suitable plants for the pond would be Sagittarias, Calla palustris, and one or two Nymphæas. For the margin you might extend the grass to the water's edge almost, and with a little soil pocketed beneath, such things as Water Forget-me-not, Chrysogonum virginicum, Primula rosea, Omphalodes verna, Caltha palustris in variety, Mimulus luteus and Menyanthes trifoliata would thrive quite well. We much regret that your letter has been mislaid.

Qualifying for a horticultural instructor (*A. H.*).—It is too often imagined that a chief essential in a gardening instructor is a capacity to talk freely; but unless with that capacity there is also wide knowledge and practical experience to back it up, all the talk in the world will be valueless. You are probably young. If that is so, one of your primary aims should be to get employment in a good garden under an able head, that you may have practical knowledge of gardening in all its operations. Then you should study good practical books on gardening also, because, with some experience in the work, you could so much more readily assimilate the information the books give. Mere book knowledge without practical experience is of little value. It is what is called empirical knowledge, and if your lectures were based on such knowledge your audience would soon find out your weakness. A few smart questions would soon trip you up. While you are thus seeking to obtain sound knowledge you should also attend any lectures or classes of a horticultural kind that may be held in your locality; but do not trust to smatterings of science or to botany as being practical gardening, as that would be a grave mistake. Horticulture is a wonderfully wide subject, and to become a master of it needs a long life devoted to work and constant study. Even then, because it grows so rapidly, all that it includes is never learnt. If you have not yet done so, you may sit for one of the Royal Horticultural Society's examinations, especially its general one. This will be held in April next, and for particulars write to the secretary of the Royal Horticultural Society, Vincent Square, Westminster, which will be sent you. The examination is held in the evening, lasts about two and a-half hours and is all on paper. Most county councils require from candidates for the office of instructor Royal Horticultural Society's certificates now. Men are not born instructors or made so by favour. They must have very practical knowledge to be qualified for such positions.

Name of fruit.—*M. E. Dobbs.*—Apple Fearn Pippin.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE first meeting and exhibition of 1910 was held in the Society's Hall, Vincent Square, Westminster, on the 11th inst., when there was a good attendance of members and visitors. Exhibits, too, were splendid for the time of year, the fine group of fruit shown by Messrs. J. Veitch and Sons, and described below, creating a great deal of interest. Orchids were freely shown and several good groups of Perpetual-flowering Carnations were to be seen.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. G. Bunyard (chairman), Messrs. J. Cheal, W. Bates, Edwin Beckett, A. Dean, H. Parr, J. Vert, A. R. Allan, G. Hobday, J. Davis, John Lyne, G. Reynolds, P. D. Tuckett, J. Jaques, W. Crump, Charles Foster, G. Wythes and Owen Thomas.

Messrs. James Veitch and Sons, Limited, King's Road, Chelsea, put up a wonderful exhibit of Apples and Pears, this comprising no less than 172 dishes, each containing a distinct variety. All had been grown in the open, and proved beyond a doubt that Apples and Pears of first-class quality and of good keeping character can be grown in this country. Among the Pears such sorts as Winter Orange, Vicar of Winkfield, Blickling, Belle les Abres, Easter Beurré, Verulam, Marie Benoist and Beurré Alexandre Lucas were conspicuous. Among Apples we specially noticed highly coloured fruits of Blenheim Orange, Annie Elizabeth, Tyler's Kernel, Bramley's Seedling, Lord Hindlip, Dutch Mignonne, Gascoyne's Seedling, Cornish Aromatic, Cox's Orange Pippin (extra good), Reinette du Canada, King of the Pippins, Ribston Pippin, Newton Wonder, Alfriston, Charles Ross, Bismarck and Lord Derby. The whole exhibit was of an extra good quality, and reflected great credit on those responsible for the culture and staging of the fruits. Gold medal.

A small collection of Pears came from F. Bibby, Esq., Hardwicke Grange, Shrewsbury (gardener, Mr. J. Taylor), these being of moderately good quality and comprising such sorts as Easter Beurré, President Barabe, Beurré Rance and Glou Morçeau. Silver Banksian medal.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. J. O'Brien, Harry J. Veitch, J. Wilson Potter, de B. Crawshay, W. Boxall, J. Forster Acock, F. J. Hanbury, F. Menteith Ogilvie, A. N. A. McBean, Walter Cobb, C. H. Curtis, J. Charlesworth, J. Cypher, H. G. Alexander, A. Dye, W. H. Hatcher, W. P. Bound, W. H. White, H. A. Tracey, H. Ballantine, Gurney Wilson and Jeremiah Colman.

Messrs. J. Cypher and Sons, Cheltenham, staged a small group of well-grown Cypripediums, these being very freely flowered and comprising such good kinds as C. Fascinator, C. insigne Harefield Hall, C. i. sanderianum, C. Niobe superbum, C. aureum and C. Alcibiades. Silver Banksian medal.

Mr. M. Mertens, Ghent, Belgium, exhibited a small group of plants, in which we noticed a fine form of Miltonia bleuana and some high-class Odontoglossum hybrids.

Messrs. Stanley and Co., Southgate, London, N., exhibited a few plants of extra good quality. Cypripedium Gisela von Bülow is a charming flower with a very distinct labellum and large dorsal sepal with deep, pure white margin. Odontoglossum duvivierianum, a natural hybrid, was also very good and attracted much attention.

Sir Jeremiah Colman, Bart., Gatton Park, Reigate (gardener, Mr. Collier) also had a small group of choice plants, among which we specially noticed Sophro-Lælio-Cattleya Lady Mary, a rich scarlet-crimson flower, three forms of Lælia anceps and a good specimen of Masdevallia schröderiana.

Messrs. Charlesworth and Co., Hayward's Heath, Sussex, staged a large group of splendidly grown plants, all of which were flowering very freely indeed. A beautiful large-flowered form of Odontoglossum was very attractive, and we also noticed Cypripedium Olga Bagshawe, C. Euryades magnificum New Hall Hey variety, C. Trolius cravenianum, and a fine lot of hybrid Calanthes, Cattleyas and Miltonias. Silver Flora medal.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, staged a fine group of well-grown and choice plants, these being remarkably floriferous. Cirrhopetalum Medusæ, Cypripedium Orion Bella, C. Euryades × niveum, Bulbophyllum lemniscatoides, Brassavola digbyana and many others called for special mention in this interesting group. Silver Banksian medal.

From Messrs. J. Veitch and Sons, Limited, came a good group of Cypripediums and Odontoglossums, C. insigne Sanderæ, C. leeanum, C. Acteus langleyense, C. Simonii, C. Little Gem and a large number of seedling Cypripediums derived from C. villosum giganteum × C. Euryades being remarkably good and well flowered.

Messrs. J. and A. A. McBean, Cooksbridge, Sussex, staged a small group of very good Cypripediums, these possessing excellent colours and good form, the plants evidently being in first-class condition. Silver Banksian medal.

E. Rogerson, Esq., West Didsbury, Manchester, staged a group of Cypripediums, these showing very good culture indeed, the plants being young and clean and the flowers very pure. C. lathamianum splendens, C. Helen II., C. Trolius varieties and C. hindeanum were a few among many that called for special mention. Silver Banksian medal.

H. S. Goodson, Esq., Fairlawn, Putney (gardener, Mr. G. E. Day), exhibited some beautiful Odontoglossum hybrids and varieties, which were particularly well grown and deserved the highest praise. The forms of O. crispum were particularly good. Silver Flora medal.

Mr. E. V. Low, Hayward's Heath, was showing a nice group of well-flowered Cypripediums and Cattleyas, these comprising some choice subjects. Cypripedium Olivia, C. Ville de Paris and C. Minos Youngii were of exceptional merit. Silver Banksian medal.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Druery, H. B. May, A. E. Bowles, J. Green, W. J. Bean, G. Reuthe, C. R. Fielder, R. Hooper Pearson, J. F. McLeod, C. Blick, J. W. Barr, J. Jennings, C. Dixon, A. Turner, F. Page-Roberts, C. E. Shea, Charles E. Pearson, W. P. Thomson, E. H Jenkins, W. J. James, G. Paul, E. T. Cook and H. J. Cutbush.

Messrs. H. B. May and Sons, Limited, Edmonton, brought a highly interesting table of foliage and flowering plants, the former including miscellaneous and Filmy Ferns, the last-named being shown in excellent condition and variety. A group of Azaleas in flower, together with nicely flowered examples of Daphne indica, completed a very nice display of plants. Silver-gilt Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, filled a full-length table with choice flowering plants in variety, together with a group of Citrus in fruit. The pot-grown Perpetual-flowering Carnations were particularly good, well-flowered examples, and included Beacon (scarlet), White Perfection (very fine), Winsor, Rose Enchantress, Britannia and Mrs. Lawson. The plants displayed excellent cultivation. Daphne indica rubra, Abutilons Golden Fleece, Boule de Neige and rosæflorum, Lily of the Valley, Begonias Mrs. Bedford and Patrie, a lovely lot of Freesia refracta alba and Erlangea tomentosa (a Eupatorium-like plant with mauve-coloured flower-heads, from British East Africa) were also shown. Moschosma riparium, with creamy plumes, was also in charming condition, while Tillandsia Lindenii gave of its inimitable and lovely deep blue flowers. Chrysanthemum Golden Age was very fine, and Acanthus montanus, from West Africa, displayed its interesting inflorescence of white flowers. Silver Flora medal.

Mr. H. Burnett, Guernsey, brought a delightful lot of Carnations, good in size and of excellent colour. Ajax is a very fine crimson; Rose Dorée, a capital light scarlet; Snow Queen, very fine white: Britannia, Pluto, very fine maroon crimson; Winsor, Mrs. Burnett, Marmion and May Day were all of special merit. Mr. Burnett also showed many good seedlings. Silver Flora medal.

Messrs. J. Peed and Sons, West Norwood, displayed a very considerable variety of Cacti and succulents, together with Sempervivums and the like. Primula floribunda, Skimmias and a few early Croci were displayed, also Saxifraga burseriana major, S. Grisebachii and others.

Mr. Arthur Young, Oxted, Surrey, brought a very charming group of Begonia Patrie, the plants profusely flowered.

Messrs. William Cutbush and Sons, Highgate, N., brought a capital exhibit, which included masses of Christmas Roses (the plants exceptionally well flowered). Iris histrioides major (lovely indeed in its intense deep blue flowers), Primula malacoides, Lenten Roses, Schizostylis coccinea, together with Daphne Mezereum album, Pernettyas and other plants. The firm also displayed a very large collection of cut Perpetual Carnations in the best varieties, the new pink-flowered Mrs. Leopold de Rothschild Improved being a notable variety. The colour is a deep Joliffe pink and the flower of good size. Enchantress, White Enchantress, Mrs. Burnett, Lady Norah Brassey (purple), Aurora (yellow and scarlet), Countess of Onslow (heliotrope), May Day (pink), Carola (deep maroon crimson, very large) and Afterglow were among the best. Silver Flora medal.

Messrs. Stuart Low and Co., Enfield, brought a capital lot of Cyclamen persicum in variety, the batch including deep crimson, pure white, pink, salmon and other shades quite apart from those of a striped character, making a most interesting display. Daphne indica was delightfully shown, while the collection of Perpetual-flowering Carnations was in every way excellent, White Enchantress being particularly fine. Silver Banksian medal.

Messrs. H. Cannell and Sons, Swanley, brought a good lot of Zonal Pelargoniums, of which Leonus (crimson), Taurus (salmon), Gemini and Jupiter were very fine, the firm also exhibiting a large group of Begonia socotrana in excellent flower, the plants being also large. Bronze Flora medal.

The Misses Hopkins, Shepperton, brought a pretty exhibit of Primroses and Christmas Roses, which was much admired.

Bees, Limited, Liverpool, showed a very nice group of Primula malacoides, the plants delightful in the extreme and most profusely flowered.

Mr. G. Reuthe, Keston, Kent, brought a few interesting hardy plants, as Hellebores, Galax aphylla, Iris bakeriana (very charming), I. Danfordiæ, Primroses, Snowdrops and other plants.

Messrs. Barr and Sons, Covent Garden, W.C., showed a nice collection of hardy flowers, which included Galanthus Elwesii, G. Ikariæ, Iris stylosa (unguicularis), Scilla biflora and a variety of Christmas Roses, the latter including Helleborus niger altifolius, H. n. angustifolius, H. n. scoticus (a large-flowered form) and H. n. Mme. Fouçard. Rosmarinus officinalis prostrata and Erica mediterranea hybrida were also shown.

The Marquess of Salisbury, Hatfield (gardener, Mr. H. Prince), showed a magnificent group of Euphorbia fulgens, Saintpaulia ionantha, Gesnera fulgens and Begonia Gloire de Sceaux. The plants of the Euphorbia were a revelation, brilliant in colour and handsome in leaf. Silver-gilt Banksian medal.

Mr. L. R. Russell, Richmond, showed a fine group of Elæagnus aurea maculata, Buddleia asiatica and Hamamelis arborea with variegated Veronicas.

BOURNEMOUTH GARDENERS' ASSOCIATION.

MR. W. REEVES of Durrant Gardens, Bournemouth, read an excellent paper on "Culinary Peas" before the members of this association on January 4. As Mr. Reeves has had much experience in the cultivation of Peas in both heavy and light soils, his remarks were of special value to members who are engaged in the growing of Peas in such varying soils. The lecturer gave some very interesting details of experiments he had made with different varieties as regards their early cropping qualities and the weight obtained. The following were the principal points of Mr. Reeves's lecture: Deep digging or trenching was necessary. Where the soil was of a clayey or retentive nature the manuring for previous crops was sufficient, Peas doing well after Celery in such circumstances. Surface mulching was preferred to continuous applications of water in hot weather. All seeds sown where there was danger from the depredations of mice should be soaked in sweet oil, covered with red lead and, in the autumn and winter time, with a thin layer of sifted coal-ashes in the trenches in addition. In light land autumn sowings were advocated, and January sowings to follow if there were sheltered borders. Early sticking was advocated, small Fir branches being useful where obtainable as a protection from cold, cutting winds. Earthing-up was advisable too. The Pea plants were not checked so much by slight frosts as they were by cutting winds. Successional sowings should be made from March to June. All sowings during this period must be made, if possible, in the open quarters in rows running north and south. The earlier rows should run from south-east to north-west, so as to obtain more morning sunshine for the plants. The lecturer advised cultivators who had to deal with heavy soils and who could command glass accommodation to sow seeds in long boxes 4 inches deep and 4 inches wide in good soil, and bring on the resultant plants gently in a cool house or frame until they were about 3 inches high; then put out the plants and soil intact in rows by simply unscrewing the bottom board in each box.

A general discussion followed the reading of the paper and Mr. Reeves replied to many questions, after which a hearty vote of thanks was accorded him, also Mr. Taylor, the chairman.

TRADE NOTES.

"CARTER'S GARDENER'S COMPANION FOR 1910."

UNDER the above title Messrs. J. Carter and Co. of High Holborn, London, have prepared a most useful pocket-book and diary that should prove of considerable use to all who work or otherwise take an interest in their gardens. It contains a vast amount of useful information, together with spaces for recording daily temperatures, rainfall, state of barometer, &c., as well as blank pages for memoranda. The whole is bound in soft red leather and is a convenient size for the pocket. We understand that this has been prepared solely for Messrs. Carter's customers and cannot be purchased.

CARTER'S "GARDENS AND LAWNS."

UNDER the above title Messrs. J. Carter and Co., the well-known seedsmen of High Holborn, London, are issuing their beautiful and instructive seed catalogue for 1910. We have just been looking through an advance copy and find it of very considerable merit, many novelties of vegetables and flowers, as well as the best standard kinds and varieties, being included. As usual, the illustrations are of very high quality indeed, and this catalogue is worthy of a place on any bookshelf. During the past year "Carter's Tested Seeds" have gained many honours at the leading shows throughout the country.

A "UNIQUE" SEED CATALOGUE.

IT was a happy thought that led Mr. Robert Sydenham, the founder of Robert Sydenham, Limited, Tenby Street, Birmingham, to use the word "Unique" as an adjective to his seed catalogue, and the issue for 1910 that is now before us fully maintains the firm's reputation for being up-to-date in every respect. All the leading vegetables and flowers are listed and described within its pages, and the prices are such as should suit the pockets of all. The collections of Sweet Peas offered are particularly good, and an excellent coloured plate of six of the newer varieties is included. The portrait of Mr. Robert Sydenham is exceedingly good and characteristic. The catalogue is a suitable size for carrying in the pocket, and we understand the firm will be pleased to send a free copy to any of our readers who care to apply for it.

"SEEDS THAT GROW."

THIS is the motto of Messrs. Toogood and Sons, Royal Seed Establishment, Southampton, whose catalogue of vegetable and flower seeds for 1910 we have just received. This large list is packed from cover to cover with descriptions of high-class vegetables and flowers, and should prove most useful for reference. We understand that Messrs. Toogood have posted a copy to each of their customers, so if one has not yet been received, application should be made for it without delay. The list will also be sent post free to any gardener who cares to apply for it.

CATALOGUES RECEIVED.

Messrs. Herd Brothers, Penrith: Seeds.

Messrs. R. H. Bath, Limited, Floral Farms, Wisbech: Seeds.

Messrs. James Carter and Co., High Holborn, London: General Seed Catalogue.

THE GARDEN.

No. 1992.—Vol. LXXIV. January 22, 1910

CONTENTS.

"To be Forewarned is to be Forearmed" 37
Notes of the Week
Forthcoming events 38
National Vegetable Society 38
Kew Guild 38
Longevity of Fern-spores 38
Correspondence
Potato Snowdrop and deterioration 38
Euphorbia Wulfenii .. 39
Gardening of the Week
For the South and South Midlands .. 39
For the North and North Midlands .. 39
Kitchen Garden
Vegetable notes 40
Early Parsley 40
Trees and Shrubs
Spiræa discolor 40
Rose Garden
Rose-growing near London 40
The climbing Rose Leuchtstern 42
Greenhouse
A new greenhouse plant 42
Humea elegans 42
Greenhouse
The stopping and timing of Chrysanthemums 43
Pruning greenhouse climbers 43
Flower Garden
A few good hardy plants 43
Fruit Garden
Prize Grapes grown in ordinary garden soil 43
Gardening for Beginners
Garden work week by week 44
Pruning and training dwarf fruit trees .. 44
Hints how to raise Begonias 45
The Town Garden .. 45
New plants 46
Fern Garden
The common Polypody 46
Books 46
Answers to Correspondents
Flower garden 47
Greenhouse 47
Rose garden 48
Trees and shrubs .. 48
Fruit garden 48

ILLUSTRATIONS.

Euphorbia Wulfenii and Yuccas 40
A good hardy flowering shrub: Spiræa discolor 41
A new stove plant: Columnea magnifica 42
First prize exhibits of Grapes 43
Pruning and training dwarf fruit trees 44, 45
A new dessert Apple: Wm. Crump 46

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

"TO BE FOREWARNED IS TO BE FOREARMED."

AT this time this old maxim ought to appeal to gardeners with greater significance than usual. After the recent spell of extraordinary mild and open weather we have experienced, we need not be surprised any day now if we find ourselves plunged into the depth of cold and wintry weather. The caution is not so necessary to the skilled and trained gardener as it is to the amateur, but a hint at a time like this is not always lost on the former. There is no doubt that the long-continued spell of unseasonably mild weather has left its mark on the crops of the kitchen garden, as well as on those of the fruit garden.

Vegetables.—Take the Broccoli, for instance, in the former garden. It has been growing continuously up to the present time; consequently both stems and leaves are softer and in a more tender condition than is usual at this season of the year, and some provision should be made for its protection. It is one of the most valuable of our spring crops, coming in as it does from the end of April to the middle of May before any autumn or spring sown vegetables are available. The stems generally first give way; therefore we recommend that the ground between the rows be protected by having a layer 4 inches or 5 inches deep placed round the roots and stems of each plant, letting the litter rise a considerable way up the stem. If the quarter in which the plants are growing can be protected from north and east winds by fixing wattled hurdles or some other equally effective protection to shield them from those quarters, it will go a long way towards carrying them safely over the severest winter. The tops also should be protected by having mats laid over them during very severe frost. The plants will take no harm if they are covered over for a fortnight without exposure during such weather. Other ways of protecting this crop will suggest themselves. The important matter is that some protection should be provided.

Celery must not be forgotten. Parsley also will be very tender, and some at least of it should be protected. A useful way to do this is to place a glass frame, cloches or hand-lights over a portion of a border or plot where it may be growing, to save for spring use in case of total loss, as sometimes happens by hard frost. Mint intended to be dug up for forcing should be covered with litter, so that it can be dug up at any time when wanted; the same with Seakale for forcing, also Jerusalem Artichokes. Globe Artichokes should also be protected.

Indoor Flowers.—The foliage of Cinerarias, Primulas, Cyclamen and other plants grown during winter for the conservatory in spring and early summer are now exceedingly soft and tender; therefore great care is needed in the ventilation, protection or heating of the structures in which they may be growing. It is far better to keep the temperature up to the proper height by outer protection than by using too much fire-heat in the growth of such succulent plants in hard weather.

Winter Violets.—Cold frames in which winter Violets are growing, especially the Neapolitan varieties, need special attention in the way of protection during hard weather. The best way is to build a bank of leaves round the frames, mixing with the leaves a little strawy litter from the stable-yard. The combustion from these will create a mild heat which will effectually ward off the hardest frost. The bank should be built as high as the glass, as the plants are more often injured by frost through the sides of the frames than through the glass, which is usually well protected.

The roots and stems of Tea and Hybrid Tea Roses should be protected, also many other tender plants which will suggest themselves to readers.

Apricot Trees.—The fruit-buds on these are unusually forward this year, and, as most fruit-growers know, the fatal injury is frequently done by hard frost to the embryo blossom in the bud before the flower expands. Therefore, the sooner the blinds or other protectors are over the trees at night in cold weather the better.

Fig Trees Out of Doors.—If these trees were more generally protected from hard frost in winter and spring we should hear less of barren Fig trees in summer. It should always be remembered that the embryo fruit which should produce the crop next year is part and parcel of the branch of last year's growth, and if frost is permitted to injure these branches, as severe frost will most assuredly do, then the owner of the Fig tree may bid good-bye to a crop of Figs the following summer unless he may be fortunate enough to secure a chance late crop from summer-formed shoots. Hurdles made of straw (the straw should be 4 inches deep and tied down firmly to crossbars) are the best protectors. As many should be provided as will completely cover the trees, and they may be left on all the winter, only taking them off occasionally to let in daylight. The stem of the tree and its roots should also be covered with leaves and litter a foot deep. Look out for your Gooseberry bushes. The first place the bullfinch and other bud-destroying birds will make for when hard weather comes is the Gooseberry bushes; therefore lose no time in having them netted.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

January 25.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1—5 p.m.

January 29.—Annual Dinner of the Société Française de Horticulture de Londres at the Café Royal.

Kew Guild.—We are requested to state that it has been decided by the committee that the annual general meeting, to be followed by a social gathering, will be held at Kew this year on the Monday preceding the Temple Show, and not at the Holborn Restaurant as formerly. Old Kewites are further asked to note that, in accordance with the decision at the last annual meeting, the next Journal will not be issued until June, and will, in consequence, be a double number. Mr. A. Garnett has undertaken the duties of hon. secretary *pro tem.*, and Mr. J. Coutts has been appointed hon. treasurer.

National Vegetable Society.—The schedule containing particulars of the classes and prizes arranged for the exhibition to be held under the auspices of the above society in September next is now in the hands of the printers, and a copy will be sent to every member as soon as ready, probably in about a week's time. We learn that Lord Howard de Walden has kindly offered to supplement the president's prize of twelve guineas for a collection of twelve kinds of vegetables with a second prize of seven guineas. Anyone who is not a member, but who would like a copy of the schedule, may obtain one by writing to the hon. secretary, Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow.

Proposed Scottish Sweet Pea Society.—A circular letter has been issued over the names of Messrs. W. Cuthbertson, J. C. Grieve, Alexander Malcolm and T. McIlwrick, suggesting the formation of a Scottish Sweet Pea Society with its headquarters in Edinburgh, this letter being the outcome of a meeting of a few Sweet Pea enthusiasts recently. It is mentioned that the proposed society is not to be in any way antagonistic to the National Sweet Pea Society, and that a show might be held annually in Edinburgh in August. A fund of £40 or £50 is asked for, to begin with, for prize-money, and an annual membership fee of 2s. 6d. is suggested; but it is considered that larger subscriptions would also be required. Should the response to the letter be sufficiently encouraging, it is intended to have a public meeting to properly constitute the society. Names of those favourable to the project will be received by Mr. Cuthbertson, 5, Durham Road, Portobello; Mr. J. C. Grieve, Redbraes Nurseries, Edinburgh; Mr. A. Malcolm, Town House, Duns; and Mr. T. McIlwrick, Downie Terrace, Murrayfield, Edinburgh.

Longevity of Fern-spores. — The "Kew Bulletin of Miscellaneous Information," No. 10, contains an interesting note regarding he longevity of Fern-spores. Some specimens of Cheilanthes mysurensis were collected in South China on October 28, 1899, and preserved as herbarium specimens. Spores taken from these and sown at Kew in March, 1908, have produced healthy plants which now bear fully developed fronds about 9 inches long. It is stated that when the fronds of this Fern are dried without much pressure, the margins incurve greatly and serve as an additional protection to the spores.

Union of the Edinburgh horticultural societies.—At a largely attended meeting of the joint Councils of the Scottish Horticultural Association and the Royal Caledonian Horticultural Association, Mr. J. W. M'Hattie in the chair, the position of both societies was fully discussed. On the motion of Mr. W. H. Massie, it was unanimously agreed to recommend to the members that, in the interests of Scottish horticulture, it is highly desirable that negotiations be entered into with a view to their amalgamation. The complete motion was: "To report to the annual business meetings of both societies that, at a joint meeting of the Councils held on January 7, 1910, it was agreed to recommend to the members that, in the interests of Scottish horticulture, it is highly desirable that negotiations be entered into with a view to their amalgamation."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet Pea Evelyn Hemus.—I cannot agree with "Spencer," who writes, on page 30, that "Evelyn Hemus behaved very badly last season, and that scarcely any flowers showed their perfect character." It is not too much to say that I grew waggon-loads of absolutely perfect flowers of this variety, and not until the end of the season, and when the plants were exhausted with seed, did the colour show any sign of running. I believe that those who failed did so through an excessive use of manure. This variety is so vigorous that it does not need much manure, and does best when it receives reasonable and moderate treatment. I fully believe that much of the trouble and disease that was so prevalent among Sweet Peas last season was due to the impression that growers seem to be running away with, viz., that Sweet Peas are rank, gross feeders; whereas no plant appreciates more a clean and sweet soil. That those grown on light soils and pure sand did best last year all points to this, because the sand would form natural drainage and prevent the soil becoming sour and stale, even if manure was used excessively. I am becoming more and more convinced that Evelyn Hemus is a variety which will not stand an excess of manure. Of course, it *never* does so well as when autumn sown, and I cannot imagine a more vigorous and hardy variety than Evelyn Hemus when sown at that time.—H. HEMUS.

Edible Pea fertilisation.—When Mr. Barwise writes he has heard on good authority that Pea-growers give themselves great trouble to keep their stocks of these Peas pure by roguing them, he must not rush to the conclusion that rogues are plentiful; indeed, that is very far from being the case. As an old seed-grower I have knowledge that the proportion of rogues in established stocks of edible Peas is very small indeed, although seedsmen do, all the same, go to considerable expense to see that stocks are kept quite true. But it is not correct to assume that these few rogues in established stocks are the result of some accidental cross-fertilisation. Really, they are due to the tendency on the part of all edible Pea stocks to slightly revert to original forms or varieties, a tendency that it usually takes several years from the seedling stage to overcome, and in some cases never is fully so. If anyone will embark in edible Pea-crossing they will find any one pod the product of the one cross to give, perhaps, seven or eight seeds, and each one when grown will produce a diverse character. If the seed from each plant is grown separately, still will there be diversity in the seedlings, and that diversity will present itself through several generations. There is no aspect of keel or pistil in the edible Pea that resembles what is seen in the Spencer type of Sweet Pea. Still further, it has always been admitted that in edible Pea blooms, as also in those of the original flat, standard forms of Sweet Peas, the act of self-fertilisation was complete even before the flowers were fully expanded. Certainly to effect a cross the keel of a flower had to be opened and the pollen anthers removed at a very early stage, or otherwise it would be too late, the fertilisation being already completed. It was not wise to refrain from enclosing Pea plants or, at least, blooms in fine muslin to ward off other pollen from contact with the enclosed flowers because someone spread an alarm. What might have resulted in a damp atmosphere might by no means have resulted in a dry one. It is still worth trying.—A. D.

Mushrooms from Ireland.—I noticed in your issue of the 8th inst. a paragraph anent the above. Permit me to point out that your correspondent states that the variety of spawn he procured from Messrs. Alex. Dickson and Sons, Limited, Seed Merchants, 61, Dawson Street, Dublin, was Baker's Milltrack. I have never heard of a maker of this name. I have for many years past supplied Messrs. Dickson with my speciality, Bason's New Milltrack Mushroom Spawn, at both their Irish establishments, *i.e.*, 61, Dawson Street, Dublin, and 55, Royal Avenue, Belfast. Under the circumstances I am of opinion your correspondent used the name Baker's in error, and that it should have been Bason's New Milltrack. If I am right, may I ask you as a favour and in common fairness to myself, as the actual maker of the particular spawn in question, to kindly make the correction in your next issue.—WILLIAM D. BASON, *Acock's Green, Worcester.*

Bougainvilleas and their culture.—I was much interested in the article by "B." in THE GARDEN of January 8, and shall be glad if you will permit me to add my experience—limited though it be at present—on their culture. I was staying during part of February in Algiers, and, charmed with the luxuriant growth of this plant out of doors, where it trails over sheds and the roofs of cottages after the manner of Crimson Rambler and Dorothy Perkins Roses in England, I resolved to try it in my conservatory. I accordingly purchased a plant from a florist in Algiers, took it from the pot and wrapped it in moist moss and brown paper. On reaching home I planted it in an 8-inch pot, and during August, September and part of October had the satisfaction of seeing it in full luxuriance. When it had ceased to flower I cut it back, replanted it in a larger pot in fibrous loam, and now (in January) it is apparently so healthy and growing so rapidly that it will probably attain to double its height before blooming again. Of course, we cannot hope to acclimatise this sub-tropical specimen in our outdoor conditions, but it seems to do well in the ordinary temperature of a conservatory.—A. A. TINDALL, *Hayward's Heath.*

Potato Snowdrop and deterioration.—I have read the note on this subject in THE GARDEN (page 16) with interest and gratification, particularly so in view of the fact that for the last six years I have relied entirely on Snowdrop as a second early Potato. My experience proves it to be "a good doer," and that it surpasses in cropping and cooking qualities some of the varieties recently introduced, though I cannot say it is disease-proof, especially in a season such as we experienced in 1909. Curiously enough, for the last two seasons I have grown one of the other varieties mentioned — White Elephant. The crop of 1908 left nothing to be desired, being abundant and of good quality, though last year it was a partial failure through disease, this being attributable to the wet season, the over-growth of haulm and a stiff, retentive soil.—T. HUNTER, *Harrow Weald.*

—— Whatever may be written with respect to deterioration in Potatoes, it is absolutely certain, assuming the varieties in question are the produce of others fairly robust, that they will endure many years if subject to proper culture, to a suitable climate, good selection and changes of soil, and to proper winter storing. In the case of Snowdrop, for instance, a variety that ranks among the moderately robust only, that eminent gardener, Mr. W. H. Divers of Belvoir, reports that he has had a stock of it good for twenty-six years, and

now shows no signs of deterioration. For how many years have we grown Ashleaf Kidney, and yet for a lesser, but still for a long, time Early Rose, Beauty of Hebron and Magnum Bonum, and stocks of these can be had as good as ever they were. Many varieties have been put into commerce bred from weak parents; and that these should have had brief existences was not only natural, but desirable. We do not want such in cultivation, especially as there are plenty of fine varieties that have good constitutions and will produce good crops of tubers. It is on light, dry soils that Potatoes show evidences of weakening, and the best way to secure good stocks from them in continuity is to have some tubers grown in diverse or stiff soil and under cooler conditions. It is such soil and climate which enables Irish and Scotch Potatoes to be so robust and so wonderfully productive. Even in the South of England we shall this year hear far less of weak growth on home-saved Potato breadths than in some preceding years, simply because Southern climatic conditions were so much damper and cooler during the past year than in preceding ones. It is when we get a return to hot, dry, parching seasons that we shall find seed tubers in the South losing vitality, and shall have to send to Scotland or Ireland to obtain the same varieties with vigour and robustness in them. In past years, and before there dawned on the Potato-growing mind the importance of keeping seed tubers through the winter in a state of rest, how common was the practice of heaping tubers in pits or stores, covering them up close and thickly, so that the bulk of tubers generated heat. That heat soon generated premature growth, and when these heaps or pits were overhauled at Christmas it was found the tubers had sprouted several inches in length. Then all were hand-picked, the shoots being pulled off, the tubers restored to their heaps or pits and re-covered, with the prospect of a second sprouting resulting, as was commonly the case. What wonder if such tubers when planted produced weak growths, many blanks and small tuber crops. The demand now so universally made for more intelligent methods of wintering tubers in shallow boxes, keeping them in light and air and properly sprouting them prior to planting, has largely grown out of a revulsion against the barbarous way of treating seed Potatoes I have described. If equal intelligence is shown in selecting tubers for seed, in getting them changes of soil and taking ordinary care henceforth, we shall hear little about Potato deterioration.—A. D.

Euphorbia Wulfenii.—Will any of your correspondents give an account of their experience with this fine plant? My first acquaintance with it was in or near the year 1902, when the late Rev. H. Ewbank wrote to THE GARDEN from Bath, where a handsome specimen was in bloom in the Botanic Garden. As soon as possible I obtained a plant, not without difficulty, as it was then hardly known in gardens. It grew rapidly and flowered finely the following year. It seemed to be one of the finest plants of recent introduction to horticulture, with its immense heads of greenish yellow flowers and its handsome foliage when out of bloom. The next two years plants I had raised flowered abundantly, but for the last three years, on plants of all ages and in various positions, I have not had a bloom. I send a photograph of a three year old plant among some Yuccas (see p. 40). The flower-heads are 15 inches long by 8 inches through, and are at their best in May. Possibly the cool, rather wet summers we have had lately are the cause of failure. It is evidently a plant for the bolder promontories of rockwork on the largest scale, though it looks fine anywhere. I should say that plants of young maturity, or from three to four years old, would always be best, as these large Euphorbias, making their yearly growth at the points of the branches, grow into a leggy state that is rather unsightly.—G. JEKYLL.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY VINES.—The stopping and tying of these will now require attention. Care must be taken not to draw the shoots too close at first, or they will probably break off. Stopping two joints above the bunch is the general rule. The night temperature may now be increased to 60°, allowing a slight fall during very cold nights.

Peaches.—Close the second Peach-house and pay strict attention to those trees that are in flower by pollinating the blooms with a soft brush or rabbit's tail. As soon as the fruits are set continue the syringing overhead and keep the floors well damped. The night temperature may be increased about 5°.

Strawberries.—Plants that have their fruits set may have a little stimulant either in a liquid state or slight top-dressing of artificial fertiliser. Thin out the fruits to six or eight, and tie the bunches up to prevent any bruising from the sides of the pot. House more plants in sufficient numbers to meet the requirements.

PLANTS UNDER GLASS.

Poinsettias.—When these begin to look finished remove to a cooler temperature and reduce the quantity of water. Allow the wood to ripen before cutting them down. The Gloire de Lorraine class of Begonias will require cutting down as soon as the flowers are over, keeping them on the dry side for a time before starting them into growth again. Calla elliotiana may be taken out and laid in boxes to start ready for planting. Cuttings of Crotons, Dracænas, &c., that were rooted in the autumn should be potted on, and another batch of cuttings put in the propagating-case.

Gloriosa superba tubers may now be shaken out of the old flowering pots and repotted, a mixture of peat, fibrous loam and sand suiting them well. A batch of Amaryllis can be started by placing them in a warm house. Their flowering season is extended considerably by starting a few at intervals of about a fortnight or three weeks. Preparations for the general overhauling of all stove plants may now be made. All soil and pots should be in readiness before commencing the work. Propagate a good batch of Panicum to replace any that have got untidy.

HARDY FRUITS.

Small Fruits.—The pruning of these must now be accomplished. When the work is completed the ground should be dressed with some good manure and lightly forked.

Gooseberries.—These will require shortening back and some of the growths cut out where overcrowded. Prune back to two or three buds, which will form young wood to replace the old. Where Gooseberries have been infested with caterpillars it is advisable to take off 2 inches or 3 inches of the top soil and replace with fresh.

Black Currants.—As these fruit on the previous year's growth it is only necessary to thin sufficiently to allow free access of light and air.

Red and White Currants.—Spur back the side growths, leaving the terminal ones 4 inches to 6 inches long for extension.

Loganberries.—These require similar treatment to Raspberries; that is, as soon as the fruit is picked the old wood should be cut out and the new tied in its place. This very useful fruit is not grown so much as it deserves to be. It is excellent for preserving, both for bottling and for jam. The Loganberry is an excellent fruit to clothe a rough fence or trellis, and though perhaps not so pleasant to the taste as the Raspberry, it travels better. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

INDOOR GARDEN.

SWEET PEAS.—Not many growers in the North find it of any advantage to sow these favourite annuals in autumn, but many who grow them well sow in pots or boxes about this time. A very good plan, and one that economises space, is to use small squares of turf instead of pots. Turf that has been stacked for six months or so is best. Make the little cubes about 3 inches square, and into each press three seeds. Of course, the exhibitor will place only one seed in each square. Arrange the squares neatly in ordinary cutting-boxes and shake a little fine soil into all joints, covering over with half an inch of this material. Give a slight watering to settle the soil, and stand in a gentle warmth until the seeds germinate, when they should be removed to a cold frame. Those who can only afford cold frame treatment for their Sweet Peas will have quite as much success, but will eventually be a week or two later in picking their first blooms, If a frame is used, keep close and heavily matted until germination has taken place.

Schizanthus.—Plants that have been wintered in small pots will now be quite ready for a shift. Very useful plants can be grown in 5-inch pots, but if large plants are in demand, place three in each 7-inch pot. Only moderately rich soil should be used for potting on Schizanthus, or the odds are that the plants will grow very tall and the flowering period be retarded. This annual stands any amount of pinching, and when the pots are well filled with roots, weak liquid manure or liquid made by stirring a tablespoonful of Ichthemic Guano into a gallon of rain-water is excellent for them. Give this twice a week. Stake neatly and tie lightly as required. Rather a cool house is best for this plant. Give plenty of air and as much light as possible. Do not over-water.

KITCHEN GARDEN.

Cauliflowers.—Many gardeners have quite given up the old method of sowing Cauliflowers in autumn. Nor can I blame them, as a sowing made about this time will provide plants that will "head" earlier than the autumn-raised ones. Do not use very much heat, or the plants will be drawn and weakly, while it is essential that a suitable variety be selected. Personally, I find nothing quite so good for this purpose as Sutton's Magnum Bonum.

Other Vegetables to Sow.—A small sowing of Brussels Sprouts, Cabbage, Lettuce and Parsley should now be made in boxes. A good Lettuce for this early work is Carter's Holborn Standard. This is a high-class Lettuce that can be depended on to heart early, and does not quickly run to seed.

OUTDOOR GARDEN.

The Rockery.—Very soon we shall be expecting this interesting part of the garden to begin to brighten up with the earlier bulbs and Saxifrages. It is well, therefore, to go over it now, removing any weeds, leaves or other rubbish that may have accumulated during the winter. A neglected rock garden is a depressing sight; so any little time spent in freshening it up is well repaid. Any alterations necessary should now be pushed forward, and the formation of new rockeries can be taken in hand at once. It is just early enough to do much in the way of planting in this section, but if the sites for new plants are got ready, the actual planting a month hence will be much more satisfactory.

MISCELLANEOUS WORK.

Laying in Stores.—During the month there is often so much dampness that working on the ground is out of the question. It is then easy to lay in stocks of turf, Pea-sticks, &c., which, although not required for some time, will, if procured now, lighten labour later on.

C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE KITCHEN GARDEN.

VEGETABLE NOTES.

THE SEED ORDER. — During the present month all the seed catalogues will reach growers, and those who fail to receive one which they desire should send for it at once. Immediately such things are in readiness the lists must be carefully studied, and as soon as possible subsequently the order should be compiled and despatched. It is, of course, obvious that many of the seeds will not have to be sown until March and April, but that is no reason why they should not be secured and put in a cupboard or other convenient place where they will be at command the moment the proper time arrives. It is folly to leave this task until a day or two before the time of sowing. The seedsman may then be extremely busy, and as orders are executed in rotation there will be some delay, which will inevitably cause irritation and may prejudicially affect the crop. Apart from that, there is always a possibility that the choicer novelties may be sold out long before the end of the season, and the procrastinator may have to forego the pleasure of growing some plant that he was particularly anxious to procure. Take good advice: Order early.

SOIL WORKING. — January is commonly a month of exceedingly bad weather as far as work in the outdoor garden is concerned, but it is most desirable that advantage should be taken of every spell of favourable weather to push on the preparation of the ground. In no circumstances whatever ought a cultivator to be satisfied with anything short of bastard trenching, and if the subsoil is suitable for bringing to the top, by all means let this be done. Two feet to 3 feet of thoroughly cultivated friable soil practically ensures satisfactory progress in every crop in the vegetable garden, and the grower who keeps this steadily in front of him and increases the depth season after season will soon find himself in far better case than his neighbour whose mechanical working has been shallow, and possibly inferior at that. The earlier all such operations can be accomplished the better; but it is an error to touch the land when it is sodden with wet or to attempt to do anything when it is frozen.

VEGETABLE REFUSE. — When all the vegetable refuse of the garden is thrown direct into a pit specially taken out for its accommodation it accumulates considerably, and by the spring there is a substantial heap of material that will be available for incorporation into the second spit of the various quarters. Such stuff is valuable in the garden and is always available, whereas it is not invariably wise to construct a smother and reduce the refuse to ash owing to the surroundings.

STORED POTATOES.—A task that is always waiting to be done when the weather renders it impossible to work in the garden is the looking over of stored Potatoes. When disease has developed since storing, as is commonly the case, this operation is not of the pleasantest; but it has to be carried out, or the whole of the tubers will be lost. Any that show the slightest sign of decay should be promptly removed for burning, no matter whether they are diseased or not—it makes matters safe. During this month the tubers for seed should be chosen and placed on end in shallow boxes, in which, in a light frost-proof place, they will have plenty of time to build up the one or two strong, healthy sprouts which go so far to ensure a satisfactory crop. Perfectly sound tubers weighing about 3oz. should be selected.

PARSNIPS.—It is desirable to lift these from the ground in small quantities for use as required, since they so quickly lose their flavour even when stored under the best conditions; but if the quarter is wanted for another crop the Parsnips must be removed. In frosty weather some difficulty will be experienced in lifting the roots unless the ground has been previously well covered with protective material. Of course, the frost will not do the least damage to the crop; but it will lock it safely up in the soil and thus prevent the grower having the use of it until the frost has gone. H. J.

EARLY PARSLEY.

OWING to the excessive wet during the autumn months this has kept badly in many gardens, supplies being drawn entirely from plants in frames. Should the stock be running short, plants may be lifted and put thickly into boxes, and if placed in heat will soon start into growth. A sowing should also be made now and placed in a temperature of 60°. As soon as the plants can be handled they may be pricked into a warm pit. A supply from this sowing should also be available for planting out in April on a warm border that has been deeply dug and manured. Parsley is always welcome in the early spring months, a time when it is usually scarce.

EUPHORBIA WULFENII AND YUCCAS IN MISS JEKYLL'S GARDEN. (*See page 39.*)

TREES AND SHRUBS.

SPIRÆA DISCOLOR.

NEARLY a century has elapsed since this ornamental shrubby Spiræa was introduced into English gardens, but, like many other charming shrubs, it was neglected or forgotten by many owners of gardens until that period a few years ago when the interest in beautiful trees and shrubs was rekindled. Now it appears to be very popular, if we are to judge from the number one sees planted. S. discolor is a North American shrub whose normal height is from 6 feet to 8 feet, though under very favourable conditions it sometimes grows twice as high. Its habit is all that could be desired, for it naturally forms a shapely bush of graceful outline. The leaves are quite distinct from those of other Spiræas. It belongs to the simple-leaved group. The leaves are more or less elliptical, with prominent lobes and rather deep serration, and they are pubescent beneath. They have been considered to bear some resemblance—which, it must be confessed, is more or less a fancied one—to those of Pyrus Aria, and on account of this Loudon refers to it as the "White-Beam-tree-leaved Spiræa." The flowers are cream-coloured and borne in good-sized terminal panicles in July, a time when they are specially welcome, as flowering shrubs are then scarce. It grows in any ordinary garden soil, and may be increased by means of cuttings in summer or by seeds. It has been known by the name of S. ariæfolia, and a variety of dwarf habit is in cultivation under the name of S. d. dumosa. W. D.

ROSE GARDEN.

ROSE-GROWING NEAR LONDON.

YOU were kind enough early in the past year to advise me through THE GARDEN regarding the manuring and treatment of my Roses "grown near London," and I now wish to give you some idea of what I have done during the past season, together with the results. I should like to say, first of all, that I obtained a load of cow-manure locally and applied a dressing of the same over the whole of the beds, lightly forking it in after it had lain a week or so. I also watered those plants which had been planted previous to March with Peruvian Guano water, and syringed the whole of the bushes well and frequently. All this was in accordance with your advice. The results, I think, are fairly satisfactory when taking into consideration soil, position, my scanty experience of Rose-growing, &c.; moreover, as I gather from the remarks published in your journal from time to time that last year was far from being a good Rose year.

Regarding the bushes, I will commence by saying that I lost four, owing primarily to the severe winter. These were Mme. Abel Chatenay, Papa Gontier, Lady Quartus Ewart and Mrs. W. J. Grant. The remainder of my trees met with extremely varied success.

I will take the Hybrid Perpetuals first. These have made very fair growth, the best being

Fisher Holmes and Ulrich Brunner. Blooms, however, have been rather scarce. One, M. Boncenne, I have had two years, but it has yet to supply me with its first bloom. Horace Vernet I have also had two seasons; it wintered badly and I was compelled to cut it almost all away; in fact, all that was left after pruning was one stem, and that not more than an inch out of the ground. This hard cutting brought some reward, the bush now consisting of four or five stems between 12 inches and 18 inches long. One flower was produced, but what a beauty! I class it as being among the best six blooms I have had during the year.

Regarding the Hybrid Teas. These have done fairly well with respect to production of bloom, but growth in many instances, notably Augustine Guinoisseau, Mme. Ravary, Mme. Jules Grolez, George Laing Paul, Viscountess Folkestone, Captain Christy and Dean Hole, I should call only moderate with me. There is certainly less growth with these now than there was before I pruned them in the spring. In the case of Dean Hole I did not get a single bloom to open satisfactorily. La France has only given me one flower in two seasons, and that an indifferent one. It has, however, formed a very fair bush. The remainder of my Hybrid Teas have all flowered well, Lady Ashtown, Countess of Gosford and Betty being the best. Countess of Gosford was not good early in the season, but got better as the summer advanced, the finest blooms appearing at the end of October and early in November. Betty did splendidly with me; I go so far as to say it is the best I have, the blooms from it in October and early November being magnificent, and undoubtedly included the best bloom I had during the year.

Regarding the Teas. I am rather disappointed at the show made by my few Teas. Mme. Vermorel, Francisca Kruger, François Dubreuil and Mme. Jean Dupuy did not supply one good bloom among the lot. Buds there were in plenty; indeed, Mme. Jean Dupuy produced more buds than any other bush I possess, but not a single one opened satisfactorily, scores rotting and falling off. This, I presume, was solely owing to the weather. What a difference there is in this respect between the Teas and Hybrid Teas! Lady Roberts and Mme. Cusin gave a few good blooms, Souvenir de Pierre Notting two or three magnificent ones and a large number quite indifferent. What a long time it takes this latter Rose to open, but when it does finally expand, what a splendid flower it is in every respect!

I found green fly very troublesome, but I managed to keep them under by going over the bushes almost every evening and brushing them off and killing them. This, of course, could not be done if one had a large number of trees, but, on the other hand, I never found solutions of soft soap and quassia chips of any particular value. Mildew proved rather troublesome on a few plants, George Laing Paul being the worst; Lady Ashtown, Mme. Jules Grolez and a few others were attacked, but not so badly. I noticed that those bushes that were affected are all close to an open fence, which possibly may have had something to do with the cause.

I planted a few further bushes in November, as follows: Frau Karl Druschki, Hugh Dickson, Gloire Lyonnaise, Gustave Grunerwald, Charles Jackson, M. Paul Lede, Dr. J. Campbell Hall, J. B. Clark and Mme. Abel Chatenay. These I purchased from a grower at Leicester, and they are very fine bushes (if you except M. Paul Lede and Dr. J. Campbell Hall). When I compare the growth of these bushes with even the very best of my own trees, my own growth seems such puny stuff, and I sometimes wonder if it is worth while my continuing to try and grow Roses under my conditions. I have, however, made up my mind to plant a few more bushes in the spring, and should be glad if you would give me a list of, say, about a dozen different, all Hybrid Teas and ones that you can recommend as being good strong growers and free-flowering varieties.

I have now earthed up the whole of my trees and covered the beds completely over with as long stable litter as possible (of course, there is a proportion of manure with it), which I have taken from some stable manure just obtained. Would you have advised me to do this? I noticed recently that the manure in the beds seemed very cold and wet. We have, of course, had a lot of rain recently, but I wondered if I had been wise to put any litter on the beds at all, as my garden is not much exposed.

The stable manure I have got will be well rotted by the spring, and I thought that about April or May I would take off the top 3 inches or 4 inches of the beds, put on a good layer of this manure, and then return some of the soil on top of it. Do you advise this, or would it be better to mix the manure with the soil? I could, of course, get some more cow-manure and give a dressing of that afterwards, and finally fork that in, as I did the previous year. I should like you, however, to tell me what you really think would be best. Of course, the top soil at present on the beds has cow-manure incorporated with it. A friend set me against the use of the cow-manure I purchased last year, as he said it was of no use, as the cows being poorly fed, it had no goodness in it and was in bad condition. I certainly noticed when turning it over in bulk, and also when forking it into the beds, that it was literally full of maggots; this was, of course, after it had stood a few weeks.

I trust I am not asking too much of you to read through this long letter, but I can assure you, on the other hand, that if you are able to give the time to answering it and to furnish me with the list of sorts I have asked for, together with any advice that you consider necessary regarding treatment and management, the same will be greatly appreciated.

I should perhaps have mentioned earlier in my letter something regarding pruning. In pruning my trees last spring I cut them fairly hard, although not so hard as possibly I should have done. What do you advise regarding this year's pruning? Do you think I should make a point of cutting the Hybrid Teas hard back, and exceptionally hard in the case of those I have mentioned as making no growth at all? In the case of the Hybrid Perpetuals, shall I cut them right back, as I have not the room for them to make large bushes, or would this tend to lessen the supply of bloom? I noticed last summer that some of the Hybrid Perpetuals sent up growths 2 feet to 3 feet long from the base with no sign of blossom. The growth made by my Teas last year was not so stout as it was when I purchased them. Should I cut them fairly hard, or should I only cut out weak growth and shorten the remaining shoots?

May I say, in conclusion, that if you consider any of my remarks as to my difficulties, &c., likely to be of any value to readers of THE GARDEN, you may make any use you like of them.

C. FORDHAM.

A GOOD HARDY FLOWERING SHRUB: SPIRÆA DISCOLOR. (*See page 40.*)

[We think on the whole you have made a capital start in Rose-growing, and should certainly advise you to continue. Last year was a very trying one. In most gardens growth has been remarkably good, especially that of the late autumn, but the flowers suffered from the wet. The losses you name were not heavy, and even the best of growers lose some plants each year. The scanty flowering of the Hybrid Perpetuals is a very bad trait, and many growers are discarding this group with a few exceptions. Such vigorous growers as M. Boncenne should be trained up to a 4-feet to 5-feet stake and very sparingly pruned. You would then obtain more bloom, and at the same time the plant would not grow too wide. Ulrich Brunner should be treated like this. When the plants reach the top of the stake you can shorten back the side or lateral growths, and every year cut away entirely one of the oldest shoots. Horace Vernet you unconsciously treated on the same lines recommended by the champion

amateur grower, Mr. E. B. Lindsell, who advises amateurs to cut this Rose back hard annually, even to within an inch of where budded. All Roses that flower freely would be the better if pruned back fairly hard, seeing that your space is so limited, and you would certainly obtain blooms of better quality from the lower dormant eyes. You can hardly expect the growth the first year to equal that of the plants when received, but the second year you should obtain good, strong growth, especially if you prune hard back. Do not prune too early. The first week in April would do for most of the Roses; then subsequent growth will probably escape the spring frosts that wrought such harm last spring to many Rose plants. From what you say regarding the Hybrid Teas, your plants were slow in making growth, but towards autumn they improved, which leads us to suppose that the cultural details were not at fault. The season was a very bad one for the true Teas. Where old-established plants existed, such sorts as you name opened fairly well. We had some beautiful flowers of Mme. Jean Dupuy, but the thinner Teas, such as Mme. Hoste, Anna Olivier, Lady Roberts, &c., were the best. If you have a sunny wall available you should plant against it the more double sorts. Such varieties as Souvenir de Pierre Notting, Mme. Constant Soupert, Boadicea and Medea would grow well in such a position. When a wall is not available such sorts are best grown upon half-standards. We think if you used Mo-Effic and Cyllin Soft Soap you would overcome the trouble caused by mildew and green fly. Both these pests should be taken in hand in their very early stages. The sorts you planted last November should be pruned back hard in March. J. B Clark, Hugh Dickson and Gloire Lyonnaise would be best grown as pillar Roses. Prune hard this season, then tie the new growths to stakes about 5 feet high. Subsequent pruning must be very moderate. We append a list of a few good Hybrid Teas as requested, but you did not enclose your list or plan, so we do not know whether you have any of the kinds or not. We think you have done wrong to cover your beds with long stable litter, and should advise you to remove it as soon as possible. It tends to keep the roots cold and wet and is not at all necessary. If sharp weather comes you should put in among the branches some long, dry straw or Bracken Fern, and remove it when necessary. As regards dressing the beds with short rotten manure in April or May, it would not be advisable to disturb the surface roots at that season of the year. Rather give the beds a dressing in February, and either lightly dig it beneath the soil or remove an inch or so of surface soil and replace the latter on top of the manure. A dressing of Tonk's manure at the same time would be beneficial. You will find the recipe for this in some of our back numbers. The cow-manure might not have been the best, but it was certainly a good fertilising medium. If you follow our Rose notes from time to time you will gather some useful hints, and we would also recommend you to study "Rose Growing Made Easy," a work just published. Those Hybrid Perpetuals that did not bloom should be left long at pruning-time. Retain the growths made last summer from 12 inches to 18 inches long. The following are all first-rate Hybrid Teas, and should grow well with you: Laurent Carle, Florence Pemberton, Pharisaer, Mrs. T. Roosevelt, Earl of Warwick, Mme. Wagram, Mme. Edmée Metz, Mme. L. Pain, Princesse Mertchersky, Mme. Maurice de Luze, Countess of Derby, Amateur Teyssier, Prince de Bulgarie and Melanie Soupert.]

A NEW STOVE PLANT: COLUMNEA MAGNIFICA. (*Slightly reduced.*)

THE CLIMBING ROSE LEUCHTSTERN.

ALTHOUGH nine or ten years have elapsed since the above Rose was introduced, I think it is still one of the prettiest for pillars. It flowers profusely and lasts a long time in good condition. The colour of its flowers is rosy pink, with a large white eye. It is a strong grower, though with us it is not quite so rampant as some of the climbing section. For some reason or other it is seldom commented on, favourable or otherwise, by writers on Roses. Anyone making a choice of Roses for pillars or arches will be amply rewarded if they include this in the selection.

Highgate. C. TURNER.

GREENHOUSE

A NEW GREENHOUSE PLANT.

(COLUMNEA MAGNIFICA.)

THIS bright and exceedingly attractive greenhouse plant is a welcome addition to the great family Gesneraceæ, and will add much beauty to the greenhouse during the winter. The plant would seem to attain a height of 1½ feet to 2 feet, the tubular, Gesnera-like flowers being loosely produced on an erect stem, as shown in the illustration. The colour of the blossoms is orange scarlet, this passing to yellow in the interior. The leaves are ovate, pointed, and covered with a dense pubescence. The plant, of which a portion is illustrated, was shown before the Royal Horticultural Society by Sir Trevor Lawrence, Bart., Dorking, on the 28th ult., when it received an award of merit.

HUMEA ELEGANS.

THIS plant is not now seen in our greenhouses as often as it was a generation

ago. When well grown the plants look charming in groups, and from three to a dozen are quite sufficient to place in groups of all sizes, from the small one to the largest. The grass-like plumes, with their lovely red colouring, are so graceful and add a lightness to the general arrangement of the group that no other kind of plant will impart. As the plant is a biennial it is necessary to sow seeds one spring in order to secure flowering plants for the next. The leaves, even while the plants are small, are of a spreading habit and require considerable space; so it is advisable to sow the seeds thinly in shallow pans filled with a light, sandy compost. Sweet leaf-soil is one of the best ingredients, as the roots cling to it tenaciously, and when they are carefully transplanted or potted singly the plants do not suffer a serious check. Throughout the summer months the plants should be kept in a cool frame and be finally repotted in August in good loam, using 6-inch pots for the purpose. In September place the plants in a warm greenhouse, and be sure to keep the leaves free from red spider. AVON.

THE STOPPING AND TIMING OF CHRYSANTHEMUMS.

[*In Reply to "Grayshott."*]

WE are pleased to advise you as to the period when your Chrysanthemums should be stopped and the character of the buds that should be retained in each instance. As you are a grower in the South of England, it is necessary to point out to other readers who may be growers desiring information on these same points that those whose gardens are located in the Midlands should commence the pinching of their plants about a week earlier than the dates given below; while those in the North should, by steady progression between the Midlands and the North, observe a difference of from ten days to a fortnight earlier for the same operations. In pinching a plant all that is necessary is to just nip out the growing point. Subsequently new growths will develop in the axils of the leaves, and these, of course, must be grown on to the kind of buds recommended in the subjoined list:

Name.	*When to Pinch or Stop Plants.*	*Which Buds to Retain.*
General Hutton	Third week March	Second crown
Murillo	Natural break ..	,,
Kimberley	End March	,,
Miss Mildred Ware ..	Natural break ..	,,
Colonel Weatherall ..	Third week May..	First crown
Queen Alexandra ..	End March	Second crown
Mme. Gabrielle Debrie	Mid-April	,,
W. Duckham	,, .	,,
Eleanor Duchess of Northumberland	Early April	,,
George Terry	First week April..	,,

J. R. Pitcher, Eva Williams. O. J. Quintus, White Quintus, Chas. Jolly, Jules Mary, Ambroise Thomas, Freedom, Fire Dragon, Ladysmith and Piercy's Seedling are all early flowering border kinds and should be grown on to terminal buds. By these means bushy plants will be evolved. Mary Anderson (single) and Kathleen Thompson (Japanese) are both semi-early varieties and should be grown on to their terminal buds. The other varieties in your list are old or obsolete. We advise you to pinch the plants two or three times during the growing period, the last pinching to take place at the end of June, and from this point to grow on the plants to the terminal buds.

PRUNING GREENHOUSE CLIMBERS.

SUCH plants as Plumbagos, Clematis, Swainsonias, and Jasminums may be pruned and kept dry at the root until they break. Lapageria rosea and its varieties should have their weak straggling shoots removed, and have a thorough cleansing. If any of these require potting it should be undertaken forthwith. Use a compost of two parts peat, one part turfy loam, lumps of sandstone, charcoal and sand, with a thorough drainage, as they require plenty of water in their growing season.

THE FLOWER GARDEN.

A FEW GOOD HARDY PLANTS.

DURING recent years no class of plants has received greater attention than those for the hardy herbaceous border. As it is impossible to grow one-half of the many beautiful plants now offered in the borders of ordinary-sized gardens, it is better to make a selection of a few of the best plants rather than have a large collection containing a great many indifferent varieties.

The following are very beautiful and reliable plants which are easily grown in any good garden soil:

TRITOMA MACOWANII.—A beautiful dwarf Red-hot Poker, or Flame Flower, not more than 2 feet high, a free and continuous bloomer, the colour being a beautiful coral red. It is almost the smallest of the Tritomas, and so should be planted in the front of the border, where its beauty should be seen to perfection. It will succeed in any good soil, but perhaps has a preference for loam. The individual flowers are remarkably long-lived.

THE TIGER LILY (Lilium tigrinum Fortunei).—A noble and easily grown Lily. Its handsome orange red coloured flowers, beautifully spotted with chocolate, are produced during September and October, and this is the last Lily to flower. It grows from 3 feet to 4 feet high, and succeeds well in any good garden soil. It is very valuable as a cut flower, lasting when cut from ten days to a fortnight, while it has a pleasing perfume. It may easily be increased from the bulbils which are formed in the axils of the leaves.

ANEMONE JAPONICA QUEEN CHARLOTTE.—One of the best of the new Japanese Anemones. The beautiful soft pink flowers are carried on stout stems 3 feet or more in height, which makes it a valuable plant for cutting. It is readily grown, but when once established should not be disturbed. The flowers are bolder than those of any other variety and of a more pleasing colour. September and October.

LUPINUS POLYPHYLLUS ROSEUS.—A great improvement on the old varieties in colour, growth and period of flowering. It grows to a height of 3 feet and produces compact flower-spikes of a beautiful rose pink, which change to a deeper tint with age. It flowers for practically the whole of the summer months, a fact that considerably increases its value as a border plant. June to September.

ANCHUSA OPAL.—A new form of the Dropmore variety of the old Anchusa italica. It throws up sturdy spikes of large pale blue flowers, which make a beautiful display in the mixed border; it grows from 3 feet to 4 feet high and is of the simplest cultivation. Its period of flowering stretches over the greater part of the summer.

BUFF LILY (Lilium testaceum).—A noble Lily of easy culture, growing to a height of 4 feet and bearing large showy flowers of a beautiful apricot yellow with bright red anthers; the flowers are very fragrant. It takes some time to become established, and for this reason should not be often disturbed, but when once established it flowers freely and makes a great display in the hardy border. It will flourish in any good soil and, unlike some Lilies, will grow and thrive for many years. June and July are the flowering periods. Fortunately, it does not take the disease like the Madonna Lily (L. candidum), which is one of its parents. R. E. ARNOLD.

The Gardens, Cirencester House, Cirencester.

THE FRUIT GARDEN.

PRIZE GRAPES GROWN IN ORDINARY GARDEN SOIL.

As I happened to be an exhibitor in the same class as Mr. Garner at the Bournemouth Show, I was much interested in the facts stated by him in THE GARDEN for January 1. It is quite true that the bunches shown were very fine and well finished in every way, considering the soil in which they had to be grown. I know perfectly well the nature of the soil from here and through Bournemouth and beyond, and it is void of any good qualities; yet with common sense it can be made to produce good Grapes.

FIRST PRIZE EXHIBITS OF GRAPES.

I am sending you a photograph of seven bunches of Muscats which won three first prizes at the Bournemouth Show and weighed together 24lb., although they were not quite finished. These bunches were cut from Vines growing in an inside border which has only been half made. The Vines were planted in the half border that was made for their reception, the loam used for the purpose being very clayey and retentive of moisture. They grew very fast, making rods 30 feet long in one season. In the autumn we decided to finish making the border, but to our amazement the roots had extended to the natural soil that was left, and we decided to leave the half border as it was, and so it remains to this day. The crops annually cut from these rods are astounding. I can produce photographs of the Vines for the last three years carrying from twelve to fifteen bunches each year.

W. D. POPE.
(Gardener to L. G. Pike, Esq.)
King Barrow, Wareham.

GARDENING FOR BEGINNERS.

PRUNING AND TRAINING FRUIT TREES.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—Where not already done, no time must be lost in preparing Potato sets for planting. This is best done by laying them out in shallow trays with the thick end, where the strongest eyes or buds are, uppermost. They should then be stood in a cool but frost-proof place fully exposed to the light

1.—A YOUNG TREE THAT GIVES PROMISE OF MAKING A SHAPELY SPECIMEN AS TIME PROGRESSES. NOTE HOW THE GROWTHS HAVE BEEN CUT BACK AND HOW THE LEADING SHOOTS ARE GROWING IN AN OUTWARD DIRECTION.

and air. Under such conditions they will soon turn green, and when they do sprout the shoots will also be green, short and sturdy. It has been proved conclusively that sets treated in this way give better returns than those planted without any such preparation. Of course, care must be taken at planting-time so that the shoots are not injured. Some growers remove all except the strongest shoot, and though this may be advisable where a few only extra large tubers are required from a plant, much heavier crops of medium-sized tubers will be secured if the three strongest shoots on each tuber are retained, the others being rubbed out before planting. Whole tubers the size of small hens' eggs are the best for sets; any larger should be cut just before planting, so that at least one strong shoot is secured with each portion. However, cutting should be avoided where possible, selecting whole tubers of the size named.

Flower Garden.—In many localities bulbs are more forward than usual this year, and already some of the early Tulips are well above the soil. Where such is the case, much good will be done by lightly stirring the soil between the plants on a dry day with a Dutch hoe. Whether the bulbs are up or not, advantage should be taken of the first spell of dry weather to remove any weeds and other rubbish from the beds, so as to give them at least a tidy appearance. In the event of severe frosts, see that the protection provided earlier for all plants of a tender nature is in its proper position. All relabelling must be finished off as quickly as possible, as with the advent of February work in this department will increase at a great rate. Any gravel or other walks that need repairing should have attention without delay; but where it is intended to give paths an entirely new coating of gravel, this work should be left until March or early April, as it will then remain bright and clean for the summer.

Lawns.—Where any bare places are present these should be made good, and the sooner the work is done now, providing the weather is not frosty, the better. Cut all round the bare place with a sharp spade or edging-iron, and then lift the worn turf out to a depth of about 2 inches. Next fork up the soil beneath, remove any large stones encountered, and then level and tread the whole moderately firm. New turves, which should be cut 2 inches thick and in strips measuring 15 inches by 12 inches, must then be laid so as to fit the space to be renewed, taking care that all edges fit closely together. Before laying the new turf it is very probable that the forked-up soil will be nearly level with the old turf; but this does not matter, as when the new is laid it must be well beaten down, and will by this means be made to sink level with its surroundings. Where moss is present the grass is nearly certain to be poor and thin, and the moss should be raked off with a small iron-toothed rake, afterwards giving the grass an inch or rather more thick dressing of good sifted soil and thoroughly decayed manure, or, failing the manure, add a 5-inch potful of steamed bone-meal to each bushel of soil, thoroughly mixing the two previous to using.

Greenhouse and Frames.—Where it is desired to increase the stock of Fuchsias, a start must be made with the old plants now, so that cuttings can be secured early. A few of the old specimens, according to the number of cuttings required, should have their shoots pruned back to about half their length, the soil in the pots be well soaked with tepid water, and then plunged to their rims, closely together, in Cocoanut fibre refuse where a bottom temperature of from 55° to 60° Fahr. can be maintained. A slight syringing overhead once or twice daily with tepid water will greatly assist the formation of new shoots. When these are about 3 inches long they may be slipped off with a slight heel of the old wood at the base of each, the lower leaves removed, and the cuttings then inserted one-third their depth in rather sandy soil, preferably one in a small pot. If kept warm and in a close atmosphere, with the pots plunged in Cocoanut fibre refuse, these cuttings will quickly root, after which they must be given more air, larger pots, richer soil, and grown on as quickly as possible. By early autumn they should have formed good specimen plants capable of producing a fine display of blossoms.

A. A.

PRUNING AND TRAINING DWARF FRUIT TREES.

LAST week notes and illustrations dealing with standard Pear trees were given; but, in the present instance, it is desired to call attention to the pruning and training of bush trees, a form of fruit tree that is most popular with owners of small gardens, and deservedly so. It is not everyone that has the necessary space to grow many standard fruit trees satisfactorily; but most lovers of the garden who are interested in fruit culture can find accommodation for a fairly good number of trees of bush or pyramidal form.

Readers should distinctly understand the difference between trees of bush form and those of a pyramidal character. The latter are most attractive in appearance when properly pruned and trained, but considerable care and attention are necessary if really symmetrical trees are to be brought into effect. Bush trees usually produce a good yield of fruit without taking up much space in the garden, and their chief difference from trees of pyramidal form is that they do not have a central leading shoot, the centre of the tree being kept open. By adopting this method of culture the side branches become strong and erect. Apples take more kindly to this method of pruning and training than any of the other equally popular hardy fruits, although they—Plums, Cherries and Pears—not seldom succeed very well under similar treatment.

There are simple rules of pruning which every beginner should be most careful to observe. The first is to cut back the weakest shoots the more severely, as by so doing the new shoots that subsequently develop will break away stronger and larger as a consequence. Readers who are at all observant may have noticed that when weak shoots are only topped or cut back lightly, the shoots that subsequently evolve are of a very

2.—YOUNG BUSH APPLE TREE WITH FOUR LEADING SHOOTS. THE LATTER SHOULD BE CUT BACK TO WITHIN 15 INCHES OF THEIR BASE; THIS WILL CONTINUE THE METHOD OF TRAINING USUALLY OBSERVED WITH THIS FORM OF TREE.

weak character, which means laying a bad foundation for future work. In the second place, remember, when pruning, to leave the bud on the outside of the shoot, so that as it develops its growth an outward turn may be ensured.

3.—A BUSH-TRAINED TREE A FEW YEARS OLDER THAN THOSE SHOWN IN FIGS. 1 AND 2. THIS SHOWS THE METHOD OF TRAINING BUSH APPLE TREES.

The trees portrayed in the present instance were photographed in the garden of an enthusiastic amateur fruit-grower, whose trees invariably bear heavy crops of fruits. The garden is within five miles of the metropolis. In Fig. 1 a young tree that is well established is shown. It is growing in good soil, and gives promise of making a shapely tree as time progresses. There are not as many side branches as one would like to see, but it serves the purpose of illustrating the pruning and training of a bush fruit tree in its earlier history. The great thing to remember when pruning is to keep the centre of the tree open; cut back branches that cross one another unduly or that turn inwards. Light, air and sun can each then contribute its share towards a successful issue. Always use a sharp knife when pruning.

Fig. 2 is a good representation of a bush-trained Apple tree. Varieties of Apples differ in their character of growth, and should be pruned accordingly. The four leading shoots in this illustration will give the reader a very good idea how a tree of bush form can be properly developed. The pruning-knife has to be used to shorten back the leaders to within, say, 15 inches of their base. If cut just above an outside bud in each instance, the growths that will subsequently evolve will go to make a shapely tree and also ensure the shoots being well ripened. By observing this method of procedure there should be a good number of main shoots in the succeeding season, which, if treated in similar fashion when winter pruning is again necessary, should bring into being a bush tree of good form.

In order to illustrate the evolution of a tree grown in bush form, a specimen a year or two older than the one seen in Fig. 2 is shown in Fig. 3. It will be observed that the method of training advocated earlier in these notes has been continued, and that, as a result of careful pruning on the lines laid down, a really excellent little tree has been brought into existence. The leading shoots will be cut back almost immediately, and a shapely specimen be thereby ensured. It is from these leaders that the shape of the bush trees and their progress are made.

Fig. 4 gives a fairly good representation of a bush Apple tree. This is a specimen of good proportions, with numerous fruit-spurs indicated freely along the matured branches, and with the leaders not yet shortened back. From this picture it is easy to see how, by a system of progression, a large specimen tree may be trained, and how easy it is to grow quite a lot of fruit even in a small garden. D. B. C.

HINTS HOW TO RAISE BEGONIAS.

Now the season is at hand when lovers of Begonias ought to be getting in their seeds, I give my experience as to the way to raise the Begonia Fairy Queen. Last year I had a packet of seed and was successful enough to raise 368 plants with the following method, which I think was very satisfactory: Make the sowing in a well-drained seed-pan the second week in January, use very light soil for doing so, and make it level by pressing it down with the bottom of a flower-pot. Do not cover the seed, but water with a very fine rosed can. Place a sheet of glass over the seed-pan to retain the moisture, then transfer to the greenhouse with a temperature of 60° to 65°, and always keep the soil rather moist. When the seedlings have two or three leaves prick out into boxes or seed-pans, using a soil of about three parts of good loam, one part of peat or leaf-mould and a little sand. Great care must be taken of the seedlings after they have been pricked out. Keep them shaded from strong sunshine until well established. Do not put them too thick when pricking out, otherwise it will be necessary to prick out the second time. From seeds sown in January good plants can be grown ready to go in cold frames about the end of March and suitable for planting out at the end of May. These plants would make a splendid bed of flowers by the end of June. W. HARRIS.

THE TOWN GARDEN.

THE GARDEN RUBBISH HEAP.—This is too often a rubbish heap in very truth, about which there is always an element of untidiness which reflects discredit all round. Moreover, it not infrequently occupies a space out of all proportion to its needs, the materials being scattered hither and thither by birds, by the agency of wind and in other ways. Now, there are two good ways of disposing of garden rubbish, each with a value of its own so far as the enrichment of the soil is concerned, and both tend in the direction of tidiness. These are the garden rubbish fire heap and the sunk-pit system, and it is the latter which I mostly favour for convenience and for utilitarian purposes. By sinking a pit in one corner of the garden, say, of 5 feet in length, 3 feet in width, and of any convenient depth, all weeds, lawn-mowings and green vegetable refuse may be deposited therein to decay. A thin covering of soil, with the addition of a little lime occasionally, are all that is needed for purposes of deodorisation and to assist an early decay, when the whole mass may be returned to the garden soil with benefit to it and to the crops. Where manure is not easily obtained, this decayed vegetable refuse has a value of its own for all the crops of the garden, and costs nothing more than tidiness to produce.

PLANTS IN COLD FRAMES.—Such plants as Pentstemons, Calceolarias and other things in the cold frame intended for bedding-out in summertime should be freely ventilated at all times in favourable weather to dispel damp, while the removal of decaying foliage should be seen to at the same time. The frame for these plants too frequently occupies a damp and secluded spot in the garden, the result being that, sun and air not reaching the plants in sufficient quantity, the soil quickly becomes sour and moss-covered. Where this is so, a slight stirring of the soil and the removal of the moss will be found beneficial, while the removal of the lights for an hour or two will also assist matters.

LOBELIA SEED-SOWING.—The dwarf-growing Lobelia is still prized for bedding purposes, and to make sure of good plants at the right time a sowing of the seeds should be made at once. The sowing should be made in slight heat, a greenhouse temperature of 45° or 50° being suitable. The essentials to a successful crop of seedlings are good seeds and very sandy and fine, perfectly drained soils. Shallow boxes are both useful and convenient for sowing the seeds in, and these should be well drained, the soil made perfectly level and the seeds scattered very thinly thereon, just covering them in with a sprinkling of sand. By preparing the seed-boxes a day in advance and watering the soil, no further watering will be needed at the time of sowing the seeds.

LOBELIA FROM CUTTINGS.—Many amateurs who save their old plants of Lobelia or a portion of them may like to know that the time is ripe for increasing these plants by means of cuttings, and preparations should be made forthwith. Small pieces of the fresh green growths are the most serviceable when about three-quarters of an inch in length, and if taken from the old plants by the aid of a sharp pair of scissors no further preparation will be required. Such cuttings as these root perfectly well in saucers of moist sand placed in the warmest part of the greenhouse, and when rooted may be pricked off into boxes of sandy soil at about 2 inches apart each way.

ROSES IN POTS.—The plants of these in the greenhouse should be pruned forthwith, taking care that they are not over-wet at the time. When pruning the plants, all thin and superfluous wood should be removed, retaining only the best shoots and shortening these back to the second or third eye from the base, *i.e.*, the point from which the growth issued in the past season. At the same time the drainage should be seen to and made secure, while if the top soil be at all sour this portion should be removed and replaced by fresh turfy loam, old manure and a little bone-meal. Freshly potted maiden plants should be kept quite cool for a time. E. H. JENKINS.

4.—A TYPICAL PYRAMID APPLE TREE WITH NUMEROUS FRUIT-SPURS ALONG THE MATURED BRANCHES.

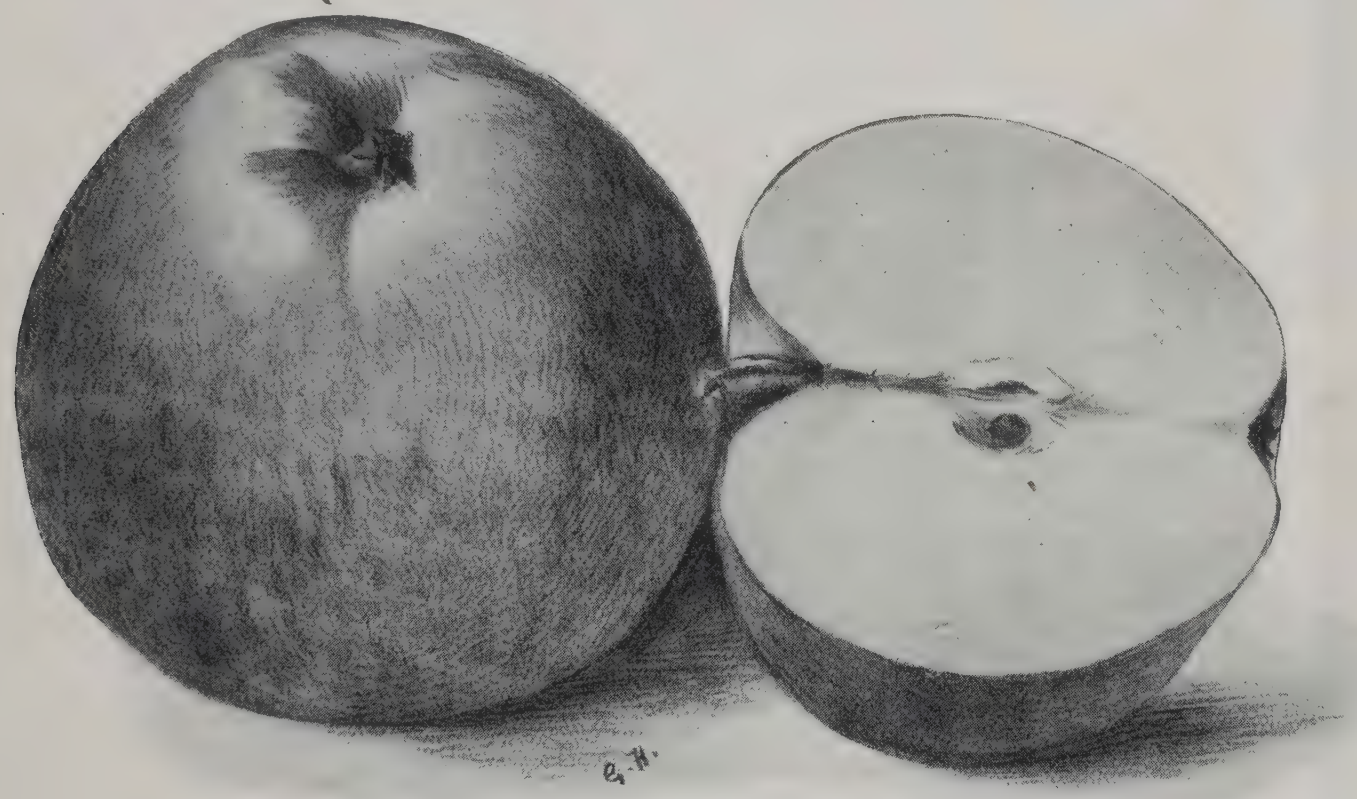
NEW PLANTS.

LYCASTE SKINNERI ARMENIACA.—A very beautiful and distinct flower of large size but good proportions. The three large sepals are pure glistening white, the petals being white, very faintly tinged with pink. The labellum is a sort of pale shrimp pink and, contrasted with the white, creates a most beautiful effect. Shown by F. M. Ogilvie, Esq., The Shrubbery, Oxford. First-class certificate.

Cypripedium Atlas.—A very large-flowered variety, with long, spreading petals and a broad, slightly arching dorsal sepal, this being of the usual green colour at the base, with a margin of dull white tinged with carmine. The labellum is rather large and projected well forward.

Cypripedium Bantam.—A rather small-flowered but highly coloured variety, the flowers of which are most attractive. The dorsal sepal is comparatively large and upright, the colour in the centre and at the base resembling polished mahogany, this colour being shown also, although in lesser degree, on the petals and labellum. The dorsal sepal has the usual margin of white, which in this instance is very pure and intense. Both the above were shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Tetbury, Gloucestershire, and each received an award of merit.

Erlangea tomentosa. — A delightful novelty from British East Africa, which, in the branching character of its inflorescences and not a little in its habit of growth, approximates to the subshrubby Eupatoriums, the flower-heads, which are of a fascinating deep mauve tone, being not unlike those of Ageratum in general appearance. The leaves are some 4 inches long, ovate-acuminate, toothed and emit a very pleasant aromatic odour. Under artificial light the plant is most effective, and as a winter-flowering subject of merit will, we imagine, be much sought after. Shown by Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.



A NEW DESSERT APPLE: WM. CRUMP. (*Natural size.*)

NEW APPLE.

APPLE WM. CRUMP.—This excellent variety, the result of a cross between Worcester Pearmain and Cox's Orange Pippin, received an award of merit from the fruit and vegetable committee when shown before it on December 22, 1908, and at that time the flavour was very good indeed, the yellow flesh being quite firm and crisp. It was raised on the Madresfield Court Estate, and promises to become one of the leading dessert varieties of the future. When shown before the committee on the 11th inst. it received the higher award of a first-class certificate. From Mr. William Crump, V.M.H., Madresfield Court Gardens, Malvern.

THE FERN GARDEN.

THE COMMON POLYPODY.

(POLYPODIUM VULGARE.)

THE following interesting notes are taken from the second quarterly number of the "British Fern Gazette," which has just been published. The journal is edited by Mr. C. T. Druery.

In many parts of the country, from Land's End to John o' Groats, the common Polypody may be seen peeping out in the hedge-rows and hedgebanks, from the crevices and summits of old walls, in the forks and gnarled bark crevices of old trees, and among the rocky *débris* of secluded glens. In exposed situations it holds its own with short stunted fronds of 1 inch or 2 inches in length, and in congenial shade and moist situations we have found it with fronds nearer 2 feet, hanging in pendulous bunches. Normally, its fronds are long and narrow, consisting first of a somewhat long bare stalk, which, continuing through the frond, bears a row on each side of long, smooth-edged, tongue-shaped side divisions tapering to a bluntish point. At the back of these fronds, if fertile, we may find each side division to bear two rows of bright golden spore heaps, looking under a lens like symmetrical heaps of ripe Oranges, the seeming Oranges being capsules full of golden spores, a beautiful sight to see. Occasionally, especially in Wales, we may find the side divisions saw-toothed and pointed, and even more or less sub-divided, and in some localities the tips of the side divisions are often divided into two or three (P. v. bifidum), though rarely all of them. Examining the plant more narrowly we shall find that the fronds rise singly from a thick, fleshy, creeping rootstock covered with brownish scales, something on the lines of the Hare's-foot Fern (Davallia canariensis), this being firmly anchored into the crevices or soil by a number of roots proper.

No one, to see this simply constructed Fern, could imagine into what wonderful forms it has sported and what splendid evergreen ornamental plants they constitute. In our own fernery we have the cream of these, numbering about forty distinct types, all but one of which was found as a wild plant, some in old pollard trees, some in walls, some in hedges and some in rocky crevices. Let us walk round and take them as they come. Here is a beautiful group in a hanging basket, one of the best ways to grow the plant. It is a basin-shaped galvanised wire one, about 15 inches in diameter and 8 inches deep, suspended by four strong wires from a hook in one of the roof supports, for it is very heavy. This was lined with living moss to retain the soil and was filled up with a compost of loam and brown peat, half and half, with a liberal dash of coarse silver sand. In this we have six fine varieties: P. v. grandiceps Forster, with heavy tassels on all tips and fronds, 15 inches to 18 inches long; P. v. bifidocristatum, a narrow form with smaller tassels; P. v. glomeratum Mullins, with curious bunchy semi-crested fronds, no two of which are ever alike; P. v. pulcherrimum, a giant form, with thrice-divided broad fronds, a grand variety; P. v. grandiceps Parker, bearing heavy crispy bunch crests at the top of almost bare stalks; and, finally, P. v. longipinnatum, found by ourselves at Killarney, with long, slender side divisions about 3½ inches long and pointed. These were originally planted on the surface, burying the roots proper and pegging down the rootstocks, and now, after some five years, they have taken full possession and push their fronds from the sides as well, forming a grand group. Each spring we give them a mulch of burnt Fern fronds, *i.e.*, ashes mixed with a little soil, and this seems to benefit them greatly, as they rise with increased vigour every season. They also remain green and fresh throughout the winter, and though frozen in severe weather, the glass being their only protection, they quite recover themselves when the thaw sets in and retain their verdure until the new growth starts to replace them.

Then follow other notes from Mr. Druery on the Fern in a series of pots and pans, the latter accommodating specimen plants standing on (not in) redware saucers, which are kept filled with water and are usually filled with roots as well. The pans are shallow and about 15 inches across, sufficient for a good plant to attain its maximum development.

BOOKS.

The Horticultural Directory for 1910.*—This well-known publication has, as usual, been brought as up-to-date as possible, and contains a vast amount of information of much use and interest to all who are connected with the horticultural trade as well as to private gardeners. Its contents are most comprehensive, and it will suffice if we say that we find this directory of use almost every day. In addition to the various addresses, much gardening information of an unusual character is included.

* "The Horticultural Directory and Year Book for 1910." Price 1s. The Publisher, 12, Mitre Court Chambers, Fleet Street, London, E.C.

The Flora of Algeria.*—This is a work of much interest, especially to those who know Algeria or are about to visit that country. The author, in his introductory remarks, writes: "Plant life in the sub-tropical climate of Algiers is quite different from that of Central and Northern Europe. Most of the trees are evergreens, and their abundance confers a delightful luxuriance on the landscape during the winter months. Visitors naturally wish to know the names of the principal forms of plant life, and as no simple, illustrated work of the kind seems to have been published, I have arranged this series of photographs of the foliage and flowering shrubs, which, aided by a few words of explanation, will enable them to be readily identified." Dr. Gubb acknowledges his indebtedness to the Director of the Royal Gardens, Kew (Lieutenant-Colonel Prain, F.R.S.), who has verified the nomenclature; to Professors Trabut and Hérail of Algiers; and especially to M. Ch. Rivière, Director of the Jardin d'Essai at Algiers. The illustrations are of great merit. Strelitzia Augusta, or the "Traveller's Palm," attains remarkable growth, and other interesting representations are those of the Dragon Tree (Dracæna Draco), Musa Ensete, the Rubber or Banyan Tree (Ficus macrophylla), the Silver Cedar (Cedrus atlantica), Monstera deliciosa or Philodendron pertusum, Citrons, Japanese Date Plum (Diospyros sinensis Kaki), Torch Thistle (Cereus peruvianus), and the Indian Fig, or Prickly Pear (Opuntia Ficus indica).

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Roses for Hampstead garden (*Mrs. Besant*).—You would find the better varieties of R. rugosa to grow well in such a garden as you describe. There are now some fine sorts in this very hardy class, such as Conrad F. Meyer, Mercédès, Nova Zembla, Rose à Parfum de l'Hay, Blanc Double de Coubert, &c. Then you should plant some of the splendid Hybrid Teas, such as La Tosca, Grace Darling, Viscountess Folkestone and that type, also Monthly Roses of the choicest sorts. Herbaceous plants such as Phloxes, Helianthuses, Coreopsis, Delphiniums, Pyrethrums, Gaillardias, Geums, Echinops, Asters (Michaelmas Daisies), Chrysanthemum maximum, early-flowering Chrysanthemums, Lupines, Achilleas, Aquilegias, Campanulas, Doronicums, Iris germanica, Poppies, Pæonies, Pinks, Rudbeckias and Tritomas; and annuals such as Sweet Peas, Candytuft, Godetias, Nasturtiums, Nemophilas, Phlox Drummondii, Poppies, &c., should provide you with a nice array of blossom. Bedding plants such as Begonias, Geraniums, Cannas, Fuchsias, Verbenas, and a number of the beautiful Tufted Pansies (Violas) you should also plant. Instead of the Rhododendrons in your front garden, why not plant a row of well-shaped Box bushes? These would make the garden quaint in appearance. A few clipped common Yews would be a nice addition, also one or two Golden Yews, both the aurea variety and the Golden Irish Yew. There are also some very pretty erect-growing conifers, such as Junipers, Cupressuses erecta, viridis and others, which if dotted about would still further add to the quaint appearance.

Christmas Roses diseased (*B. B. B.*).—Your plants are suffering from a severe attack of the black Hellebore leaf-spot fungus known as Phyllosticta helleborella, and all you can do at the present time is to collect the diseased portions and burn them to prevent, as far as possible, any further spread of the disease. If you have many plants so affected you had better at once remove the lights and give a syringing with a sulphur solution, using half a pound of the sulphur first stirred into a thick paste, and then add two and a-half gallons or three gallons of soft water, preferably hot or nearly boiling, stirring while it is poured on to the sulphur. When cooled spray the plants, the buds and the surrounding soil freely. When new leaves appear use a similar mixture repeatedly during the season, or, if easily procurable, sulphide of potassium, three-quarters of an ounce to two gallons of water, taking care to wet the plants above and below. In August or early September lift the plants and, having washed away all the soil, divide and replant in a well-prepared bed of new soil, selecting, if possible, a south-west aspect. Do not be afraid to divide the plants, as this, when done at the right time, greatly adds to their vigour.

THE GREENHOUSE.

Azalea leaves falling (*Young Gardener*).—The reason of your Azalea leaves going brown and falling is that they are badly attacked by thrips. If the atmosphere is too dry these pests soon lodge on the leaves, and if the plants get too dry at the roots they increase even more rapidly. It is more than probable that these pests made their appearance last summer when the plants were plunged out of doors, and continued to increase, not only while the Azaleas were outside, but after they had been removed under glass. You speak of the trouble not affecting their blooming; but if the thrips are allowed to go unchecked they will soon weaken the plants to such an extent that the flowers will not open well. As drought of any kind is conducive to the increase of thrips, these conditions must be combated as much as possible. When out of doors it is wise to give the plants a good syringing on the evenings of hot days, taking care to thoroughly wet the leaves on the under sides. Syringing with the extract of quassia chips will tend to keep these pests down. Now your plants are under glass the thrips may be destroyed by vaporising with the XL All vaporiser. This will kill all the perfect insects, but many of the eggs may escape; hence vaporising may with advantage be done three times at intervals of two or three weeks. The thrips must be destroyed before the Vines put forth their new leaves.

Treatment of Cyclamen (*J. Patterson*).—Cyclamen, both the ordinary and fringed forms, can be successfully grown in a greenhouse, but when they are raised from seeds the young plants require a closer atmosphere than that of a structure in which a miscellaneous collection of plants is grown. The seed may be sown in July, using for the purpose clean, well-drained pans filled with a mixture of loam, leaf-mould and sand. In an ordinary garden frame kept close they will soon germinate, and must be removed into the greenhouse in September. In February they may be potted singly, using much the same kind of compost. During hot weather they are again better in the frame than in the greenhouse, removing them to this latter structure in the autumn. In the meantime they may be put into pots 4½ inches or 5 inches in diameter. Plants that are flowering now should be kept in the greenhouse and regularly supplied with water till it is safe to put them into a frame outside. When the leaves die down the soil may be allowed to get almost dry, and then about midsummer they should be turned out of their pots, shaken quite clear of the old soil, and repotted in a compost made up of loam, leaf-mould and sand, with the addition, if possible, of a little brick rubble broken fine. After this the frame is the best place for them, the lights being tilted to allow plenty of air; but they must be shaded from bright sunshine. If you have no frame available, the plants may during the summer be kept in the coolest part of the greenhouse.

Temperature for Crotons (*J. S.*).—Crotons are essentially stove plants, and as such a minimum night temperature of 50° to 55°, rising 10° to 15° during the day, is absolutely essential to their well-doing. If the thermometer falls below 50° it will, in all probability, cause the more tender leaves to become discoloured and ultimately drop.

Greenhouse in winter for profit (*A. M. D.*). As there is always a demand for flowers, you might make your greenhouse remunerative by protecting the Chrysanthemums during the autumn and early winter.

Sowing tuberous Begonias (*Topper*).—If the Begonia seed is sown early in February in a temperature of 55° to 65°, it will soon germinate, and pricked off when large enough to handle, the young plants may, when sufficiently advanced, be potted singly into small pots, in which they will become quite established by bedding-out time.

Cobæa scandens (*A. M. D.*).—We fail to see the necessity of cutting down a Cobæa scandens because it is in a pot and you wish to plant it in a greenhouse border. At the same time, if you wish to shorten it back this may be safely done, but it should be allowed to recover from the operation and commence to push out new shoots before you plant it out in the border.

Primula obconica unsatisfactory (*Puzzled*). Too dry an atmosphere is undoubtedly the cause of your plants of Primula obconica behaving in the way they do. This theory is borne out by the fact that while in the cold frame they are all right. If they can be placed on a moist bottom as far from the hot-water pipes as possible, you will not, we think, have much further trouble.

Freesias (*W. S.*).—Of the Freesias we scarcely know what to say, as some of the bulbs sent had no roots whatever. They look as if they had almost perished before they were potted; but when the potting took place you do not say. Again, were the points of the bulbs above the surface of the soil? The upper part should have been at least half an inch below. If we knew more of the treatment we could advise further.

Lily of the Valley going wrong (*R. B.*).—You give us no particulars of the treatment given to your Lily of the Valley, hence advice is difficult. The appearance of the spikes would suggest that they have been allowed to get too dry at the roots or exposed to a cold draught. In order to flower Cyclamen well during the winter they need a light, buoyant atmosphere, with a free circulation of air and a temperature of 50° to 55°. It is an advantage to stand the flowering plants on inverted pots in order to allow the air to circulate.

Damp in greenhouse (*L. C.*).—In order to counteract the damp, plenty of air should be given during mild weather. You will find this very beneficial, even to the extent of leaving a little air on the ventilators throughout the night when warm enough. An oil-stove would certainly help to clear away the damp. If the house still continues too damp, the floor may be cemented but in a general way a floor of earth or ashes is, from the manner in which the moisture is retained, more beneficial to plants than one of cement or glazed tiles. One must, however, in such matters be guided by circumstances, as no hard-and-fast line can be laid down in the matter.

Pelargoniums for inspection (*Worried*).—If all your Zonal Pelargoniums are like the specimen sent they are far too weak and debilitated to flower in a satisfactory manner. The cultural directions followed by you are quite correct up to the taking of the plants under cover in September. Since that time they would appear to have been kept much too far from the light and with insufficient ventilation, the result being that the shoots have lengthened considerably and are too weak to flower well. Appearances, too, suggest that they have been kept too warm, and if the temperature stated by you represents a minimum of 55° during the night, such is certainly the case. In order to flower Zonal Pelargoniums successfully during the winter they need at that season as light a structure as possible with ample provision for ventilation, thus ensuring a light, buoyant atmosphere. The house should be so situated that it gets all the sun available at the season named, and a night temperature of 48° to 50°, rising 10° or so during the day, should be maintained. It is very essential that plants intended for winter blooming should, during the summer, be stood on a hard bottom in

* "The Flora of Algeria." By Alfred S. Gubb, M.D. Published by Baillière, Tindall and Cox, 8, Henrietta Street, Strand, London, W.C.

a spot fully exposed to sun and air, the object being to ensure sturdy, short-jointed growth, as upon this a great deal of the future display depends. Your selection of varieties is a very good one.

Treatment of Bouvardias (*J. Patterson*).—Bouvardias may, generally speaking, be given much the same treatment as a Fuchsia; that is, they can early in the spring be readily propagated from cuttings of the young growing shoots put in sandy soil in a close propagating-case. Then, potted off in a mixture of loam, leaf-mould or peat and sand, and stopped once or twice in order to ensure a bushy habit, they will by midsummer be ready to shift into flowering pots 5 inches in diameter. Throughout the summer a frame is the best place for them, or, failing this, they may be stood out of doors. Given a temperature of 50° to 60° they will flower throughout the autumn and well on into the winter, at which time their pretty, neat flowers are much appreciated. When the flowering season is over the plants must be kept rather drier at the roots for a time; then early in March they should be pruned into shape and encouraged to grow by an increased amount of water and an occasional syringing. As soon as the young shoots have started, the plants should be repotted, taking off a good deal of the old soil before doing so. Throughout the summer they may be treated as advised for young plants, and will flower in the autumn.

ROSE GARDEN.

Rose Rayon d'Or (*W. H. S.*).—By describing this beautiful novelty as "not too full," the writer desired to convey the impression that it was not a Rose of the Etoile de Lyon type and some of the older golden Roses, which growers in this country have found so difficult to cultivate. Rayon d'Or is purely a garden Rose whose merits lie mainly in its glorious colour, which, seen in a mass, will be welcomed by a large number of rosarians who plant Roses for garden decoration and who do not examine a bloom too closely. Rayon d'Or is not at all a Rose of the Souvenir de Pierre Notting type, but more after the style of Billiard et Barré, but with a dwarf habit of growth, as my note stated, somewhat resembling that of Le Progrès. I quite agree that many of our present-day novelties are rather thin, but I have never heard anyone say they would discard such a Rose as Betty or Mme. Ravary on this account. My opinion is that Rayon d'Or will be in great demand, for I know how much we have been wanting a good golden yellow bedding Rose. Where there is one who grows Roses for the beauty of their individual blooms, there are a hundred who plant them as decorative plants, which is evident from the large demand for such Roses as Mme. Ravary, Lady Battersea, Melanie Soupert, &c.—P.

Orange yellow Rose for button-holes (*New Reader*).—Both Lady Roberts and Mme. Ravary yield lovely buds very suitable to wear as button-holes. Perhaps of the two we should prefer Lady Roberts.

TREES AND SHRUBS.

Plants for the seaside (*Dolphin*).—You will experience a difficulty in establishing any tree or shrub in ground which is permanently covered with water. Even Willows fail to grow satisfactorily in water-logged soil. Your best plan will be to open trenches or ditches 2 feet or 3 feet wide and from 2 feet to 3 feet deep at intervals of from 12 yards to 20 yards, to drain off some of the superfluous water. You may then plant strong cuttings of Willow a foot or so long, burying three parts of each cutting below the surface. Plant thickly, say, a couple of feet apart each way, for you will be sure to lose a number. You ought, however, to have sufficient take root to furnish your ground. If you can get the ground dry enough to plant in you may plant trees of the Alder (Alnus glutinosa).

Bark falling from Beech trees (*E. M. M.*).—It is impossible to say from the pieces of bark sent what is the reason for the bark falling off your Beech tree. If this is general all over the tree it points to its speedy death. It may, however, be from a local cause, and a section of bark only be dead. If that is so, the tree may not suffer seriously. You can do no harm by giving it a little more space, but do not remove too much vegetation from about it at once, or you may do more harm than good. The tree may have suffered in health from the planting up you speak about. You can do little more than you have already done, that is, top-dressing and washing.

Seeds of Gorse (*Violet Batt*).—It is difficult to obtain seeds of French Gorse (Ulex Gallii) from seedsmen; the best plan to adopt would be to get someone in the neighbourhood of Bournemouth to collect seeds for you next autumn, or young self-sown seedlings, which usually grow in abundance on an area that has been burnt over or otherwise cleared at the present time. U. Gallii is a very much better plant than U. nanus and infinitely more decorative.

FRUIT GARDEN.

Mealy bug on Vines (*H. M. A.*).—We consider that you have done and are doing all that is possible to exterminate the mealy bug in your vineries beyond fumigating them with cyanide of potassium and sulphuric acid. This, however, is an exceedingly dangerous operation, and one we do not care to recommend. Even were it properly carried out it is possible, under the circumstances, that some of the insects would survive. Mealy bug is one of the worst pests to contend with in vineries, and we think you cannot do better than continue with the measures you are taking for its suppression.

Irish Peach Apple bush not satisfactory (*Francis*).—From the symptoms you describe, we are inclined to think that the cause of the failure is due to something being wrong with the roots. We advise you, if the tree is not more than seven or eight years old, to lift it carefully and replant, after the strongest of the roots have been slightly shortened, in new turfy loam, pressing it firmly round the roots. The tree would soon make a mass of new roots in this new soil, and would soon recover. If the tree is older than this, it would not be wise to lift it out of the ground, but rather to dig a trench round it, 5 feet distant from the stem of the tree and 2½ feet deep, working the soil away from the tree until a good body of roots is reached, then replanting these roots, after slightly shortening their points with a knife, in the same sort of soil as recommended above, giving also a surface dressing over the roots of the same soil, 4 inches deep, and treading it down firmly.

Pruning Apples and Cherries (*Scholastic*).—Stone fruits of most description will bear fruit freely on the young wood of the previous year's growth, including some Cherries, notably the Morello. If our correspondent's Cherry trees are standard ones, and they have ample space to grow in, his best system of pruning will be to leave the shoots of the previous year's growth their full length without pruning at all, contenting himself by thinning out the weakest of the shoots and any others which he considers may unduly overcrowd his trees with foliage to the exclusion of adequate light and air among the branches in summer. If his trees, on the contrary, are of bush form, we consider that the spur system of pruning is far preferable. This consists in shortening the side shoots on the main branches at the end of July to within six buds of their base, and at the winter pruning to further cut the same branches back to within two buds. This compels the formation of bottom fruit spurs and buds. The terminal leading shoot at the end of each main branch should be slightly shortened in winter only, say, by one-third its length, in order to compel many fruit spurs to form below the cut. By this method of pruning spurs are formed the whole length of the main branches. All Cherry trees, even the Morello (when grown as a bush), succeed well when pruned on this principle. As regards the Apple, there are very few indeed which can be relied on to bear good crops of fruit on the young wood, and even these will bear well when compelled to form spurs by pruning in the same way as advised for the Cherry. Among those which occasionally bear on the young wood are the following: Golden Noble, Gravenstein, Irish Peach, Lady Sudeley, Red Juneating, Seaton House and Waltham Abbey Seedling.

Fruit trees for new garden (*H.*).—We think that your suggested arrangement and selection of the various fruit trees for the different positions and aspects of your garden are good. We would only suggest that another Nectarine or a Gage Plum might be added against the south wall; we think room might be found for an extra tree in the 100 feet. South wall.—One Fig Brown Turkey; one Peach Duchess of York, early; one Peach Stirling Castle, medium to late; two Apricots Moorpark; one Nectarine Sir Charles Napier, early; one Nectarine Spencer, midseason, or Plum Denniston's Superb Gage. East fence.—One Apple Mr. Gladstone, ripe July and August; one Apple James Grieve, September; one Apple Cox's Orange Pippin, October to Christmas; one Apple Christmas Pearmain, Christmas to February; one Pear Williams' Bon Chrétien, September; one Pear Doyenné du Comice, October and November; one Plum Green Gage; one Plum Coe's Golden Drop. West fence.—One Apple Margil, October; one Apple King of the Pippins, November; one Apple Allington Pippin, Christmas; one Pear Marie Louise, September and October; one Cherry Frogmore Early Bigarreau; one Cherry Governor Wood; and one Cherry Waterloo, if room.

MISCELLANEOUS.

Cropping a Northern garden (*M. E. C., Melrose*).—It is difficult to judge accurately of the productive capacities of your Northern garden without seeing it and noting how much of the half an acre or a little over is available for vegetable production when paths and perhaps trees, bushes or borders are taken out of it; also the conditions of growth may vary very much from those prevailing in the South. Generally the soil seems good, although it has been cultivated 100 years; but it is obvious that deep trenching every three or four years is essential to enable the soil to be changed occasionally. That, however, need not be done all at once, but a portion left uncropped in the winter should be so treated. It will also need liberal dressings of manure and, of course, frequent lime dressings, also now and then a dressing of basic slag at the rate of 5lb. per rod, forked in about the month of January. Where ground is vacant, this would help to supply phosphates, which such soil as yours greatly needs. As you say you have an area of 3½ acres of other ground, flowers, a vinery and a greenhouse, and but one gardener, with occasional summer help, we can only wonder how he gets through so much work, as to us there seems to be ample for two men. You cannot go to better seedsmen than the firm you name, as they rank very high for stocks or quality. We do not understand your reference to Peas in pounds, but 2lb. should be about 1 quart, or in all about 5½ quarts of seed. That is a good deal, but so much depends on whether sown thick or thin. If a pint of any average Pea sows a row 80 feet in length, it is amply thick then. But why have so tall a Pea as Quite Content? You had far better have a pint of Autocrat in place of that, and from Autocrat and Gladstone sown in June at intervals of two weeks you should have a supply of first-class Peas late into the autumn. Sow William the First, Gradus, Laxtonian, Stratagem, Prizewinner, Rearguard and The Pilot in this order, the other two following. You do not grow Scarlet Runners, but that is characteristic of Scotch people; yet in the South it is one of our most valuable summer and autumn vegetables. Of other Potatoes than Ashleaf Kidney try Midlothian Early, Sir John Llewelyn and Royal Kidney. These are early and good, and should, if they do well, furnish you with tubers for a long season. The best Lettuces are Paris White (Cos) and All the Year Round (Cabbage); you can hardly wish for better if they do well with you. Taking your other seeds generally, they seem to be all excellent selections, and when well sown thinly, plants raised and properly planted, the soil being well prepared, they should give you good returns. However, gardening has many foes in weather, insects, birds and diseases to contend with, and great allowances have to be made for all these troubles.

THE GARDEN.

No. 1993.—Vol. LXXIV. January 29, 1910

CONTENTS.

Gardeners' Royal Benevolent Institution 49
Notes of the Week .. 50
Correspondence 50
Gardening of the Week
For the South and South Midlands .. 51
For the North and North Midlands .. 51
Greenhouse
The Medusa's Head Orchid 52
Border Carnations in cold frames 52
A good greenhouse plant 52
Fruit Garden
On the care and management of orchards.—I. 52
Some good Plums for pot and outdoor culture 53
Rose Garden
Standard Tea Roses under glass 54
Rose Dorothy Perkins as a standard 54
Protecting standard Roses 54
Flower Garden
Sweet Pea chat 54
Some spring-flowering Rockfoils 55
The Peruvian Nasturtium 55
Coloured Plate
Pentstemon Myddleton Gem 55
Gardening for Beginners
Garden work week by week 56
What to do with leggy plants 56
Forcing plants in winter and spring .. 57
Growing Pansies .. 57
The Town Garden .. 58
Kitchen Garden
Tomatoes in the greenhouse 58
A day with Mr. Robert Sydenham 58
Answers to Correspondents
Flower garden 59
Trees and shrubs .. 59
Rose garden 59
Greenhouse 60
Miscellaneous 60
Societies 60

ILLUSTRATIONS.

Tubers (edible) of the Peruvian Nasturtium 52
The Medusa's Head Orchid in Ireland 52
A good late dessert Plum: Grand Duke 53
Rose Dorothy Perkins 54
An early flowering Rockfoil (Saxifraga burseriana) .. 55
Pentstemon Myddleton Gem .. .. .. Coloured plate
What to do with leggy plants 56, 57

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

IT is with the greatest pleasure that we record a most successful year in connexion with the above praiseworthy institution. At the annual general meeting of the subscribers and friends held at Simpson's Restaurant, Strand, W.C., on the 20th inst., Mr. Harry J. Veitch, treasurer and chairman of committee, in the chair, the committee were able in their report to state that £200 more had been distributed in pensions and other forms of relief during 1909 than in any previous year of the institution's existence. The grand total dispensed in pensions and gratuities during the year was £4,143 19s. 9d., a sum of which the committee and the most energetic and courteous secretary may well feel proud. The vast amount of happiness which the distribution of such a sum among old gardeners or the widows of gardeners, who have fallen on evil times through sickness and other causes over which they have no control, gives is only known to those whose duty it is to investigate the cases put forward for relief. Nor are the benefits of the institution confined to private gardeners—nurserymen, seedsmen and market gardeners or their widows are all included; hence the institution may truly be regarded as a national one.

The growth of the institution, and consequently its increased capabilities for relieving distress, must be a source of much gratification to all who subscribe to and in other ways support the funds. In the first year of its existence the contributions amounted to £72, and the following year two pensioners were put on the funds; during 1909 subscriptions, including a balance in hand of £1,011 8s. 1d., amounting to £14,254 2s. 1d., this including two legacies, were received, and at the annual meeting twenty-five pensioners were put on the funds.

In addition to the pensions we must not forget the Victorian Era and the Good Samaritan Funds, which were founded for special purposes. From the first-named fund the committee are empowered to render temporary assistance to those who have subscribed to the institution, and who are not successful in being elected for a pension; and from the latter the committee may render temporary assistance to any gardener or gardener's widow, whether they have been subscribers or not. During 1909 £199 10s. was distributed in connexion with the Victorian Era Fund, and £183 4s. from the Good Samaritan Fund.

Before giving more details concerning the annual meeting and election of pensioners, we appeal to all those who are interested in gardening, directly or indirectly, to give the institution as much support as they possibly can. The committee is an influential and hard-working one, and each member gives his services gratuitously, and in the secretary the institution has a real friend who spares no trouble in his endeavour to make it a success. Employers of gardeners may rest assured that any contributions or legacies to the institution will be distributed with every care, and only to those who are really in need of assistance.

We have already made brief reference to the report of the committee and the financial condition of the institution, but a few details may not be devoid of interest. In their report the committee state: "The Victorian Era Fund and Good Samaritan Fund have done a vast amount of good. The former assists all those unsuccessful candidates who have been subscribers by grants of money whilst awaiting election, and the latter gives assistance to those poor people, whether they have been subscribers or not, who are in temporary difficulty and trouble. Eighty-two cases were assisted from these funds last year. As the income only from these funds can be dealt with, and as, unfortunately, the applicants for assistance are increasingly numerous, the committee earnestly solicit further support to enable them to extend their beneficent work. The auxiliaries still progress and continue to be a source of much help and interest."

Referring to the balance-sheet, we find that in addition to £4,143 19s. 9d. distributed in pensions and gratuities, mentioned previously, £3,180 was placed on deposit; invested in Good Samaritan Fund from Mrs. Ryland's legacy and interest, £1,031 12s.; invested for Good Samaritan Fund in Metropolitan three and a-half per cent. debenture stock, £2,007 4s. 5d.; invested for Victorian Era Fund, £1,000; balance with treasurer, £1,086 5s. 6d., and with the secretary, £5 6s. 2d. It will thus be seen that the institution is in a sound financial condition. The report and balance-sheet were unanimously adopted.

Mr. Harry J. Veitch was unanimously re-elected treasurer, Mr. Arthur Sutton, in seconding the proposal for his re-election, paying a warm tribute to the manner in which Mr. Veitch has always performed his duties and the whole-hearted interest he takes in the welfare of the institution. Mr. George J. Ingram was unanimously re-elected secretary; and Messrs. W. Atkinson, N. F. Barnes, P. Rudolph Barr, James Douglas, George Monro, H. W. W. Nutting, P. Blair, W. Denning and George Wythes, who retire by rotation, were re-elected members of the committee of management, Mr. R. G. Waterman of Liverpool being elected a member of the committee in place of Mr. J. H. Vallance,

deceased. Mr. T. Manning, T. Swift, J. Willard and B. J. Monro were re-elected auditors, and the chairman stated that the committee had, as an appreciation of their services, offered each of these gentlemen a honorary life membership of the institution. Mr. F. Cooper, Mr. B. J. Munro and Mr. Percy White were elected scrutineers of the poll, and the counting of votes was then proceeded with. The results of the election were as follows:

	Votes.
William Bush	3,526
Louisa M. Elphinstone ...	3,227
Samuel Gilbey	3,029
George J. Barnes	3,018
Henry Sawyer	2,973
John S. Ball	2,932
Emma Barnard	2,873
William Chapman ...	2,786
William Ward	2,779
Henry Newman	2,717
John Harding	2,708
Thomas Chapman	2,691
Richard P. Sutton ...	2,599
Dugald Cowan	2,585
Annie Hawkins	2,584
Henry West	2,568
Henry Webber	2,492
Edwin Rattue	2,401
James Brown	2,390
William Rapley	2,345
George Clark	2,286
Alice Latimer	2,268

Owing to the death of two pensioners since the voting papers were sent out, twenty-two instead of twenty were elected. Alfred Hunking and Eliza Cosnett were placed on the fund under Rule III., Clause 10. Mr. William J. Williams was also elected by the meeting, this making a total of twenty-five elected and two placed on the funds as described above. Through the kindness of Mr. George Monro, who gave £10 for the purpose, a widow named Fanny Berry was provided with a pension for one year. Mr. Arthur W. Sutton also kindly offered to give a sum of £20, so that the most necessitous unsuccessful candidate could be placed on the funds, the selection to be made by the committee. The chairman said he wished to draw special attention to the fact that forty-four voting papers, comprising 275 votes, were unsigned and the votes thereby lost.

The annual friendly supper was afterwards held.

The pleasantest incident of the evening was the rousing reception given to Mr. N. N. Sherwood, who occupied the chair. Mr. Sherwood, as all the horticultural world knows or should know, is ever thinking of gardeners in distress, and has given abundantly to help them in their old age. Once again we re-echo the thoughts of others—may he continue to enjoy good health for many years.

In proposing "The Continued Success of Our Institution," Mr. Sherwood said they could congratulate themselves on the success attained during the past year. During the thirteen years the institution had been in existence it must have done a vast amount of good. The annual dinner, held at the Hotel Metropole last year, brought in over £2,000 and cost the institution only a little over £40, so he thought they worked on very economical lines. The secretary they had was an ideal one. He coupled with the toast the name of Mr. Harry J. Veitch. Mr. Veitch, in replying, said that Mr. Sherwood had very kindly offered to assist another unsuccessful candidate, and he (Mr. Veitch) would undertake to help another for one year. They were all very pleased indeed to see Mr. Sherwood back with them again.

NOTES OF THE WEEK.

FORTHCOMING EVENT.

**** *The dates given below are those supplied by the respective Secretaries.*

January 29.—Annual Dinner of the Société Française de Horticulture de Londres at the Café Royal.

Royal Gardeners' Orphan Fund. Sir Jeremiah Colman, Bart., has kindly consented to preside at the annual dinner of this fund, which has been arranged to take place at the Hotel Cecil on Thursday, May 19.

Horticultural Lecturer for Norfolk.—The Norfolk County Council recently appointed Mr. H. Goude of The Grange Gardens, Old Catton, Norfolk, as their instructor. Besides giving the usual evening lectures, Mr. Goude will visit all the school gardens and, where possible, private gardens in the district, keeping a sharp eye on his travels for any traces of injurious insects or pests.

Peter Barr Memorial Fund.—Large numbers of Daffodil-lovers having expressed a desire to see a fund raised for the purpose of commemorating the life and work of the late Mr. Peter Barr, V.M.H., the members of the Royal Horticultural Society's Narcissus Committee recently met to consider the matter. Various proposals were put forward, but those finding most favour were the institution of a Peter Barr Memorial Medal, to be awarded annually in connexion with work among Daffodils; and the provision of a fund for the maintenance of an orphan through the medium of the Royal Gardeners' Orphan Fund. To carry out these proposals a general committee, consisting of the members of the Royal Horticultural Society's Floral and Narcissus Committees, was at once formed, with power to add to their number, and five members of each body were nominated to form an executive committee, as follows: Mr. William Marshall, V.M.H., chairman; Mr. Henry B. May, treasurer; Mr. J. T. Bennett Poë, M.A., V.M.H., Mr. W. Cuthbertson, J.P., Rev. J. Jacob, Mr. R. Hooper Pearson, Mr. W. Poupart, Mr. Charles E. Shea, Mr. Walter T. Ware, and Mr. Charles H. Curtis, hon. secretary. Mr. Peter Barr's great work was among Daffodils, and he may be said to have created the British Daffodil industry; but he also took an active part in the improvement and introduction of Tulips, Hellebores, Michaelmas Daisies, Lilies and other hardy flowers. He was also one of the founders of the Royal Gardeners' Orphan Fund, and served on the committee of that charity for many years. In these and many other ways Mr. Peter Barr did so much to advance horticulture that the committee appeal confidently to the great flower-loving public for a sufficient sum to carry out the above proposals. Cheques and postal orders crossed "London and Provincial Banking Co." should be sent direct to the treasurer, Mr. H. B. May, Stanmore, Chingford, Essex. Copies of this appeal for distribution among members of Daffodil and other floricultural societies will be gladly sent on application to the hon. secretary, Mr. Charles H. Curtis, Adelaide Road, Brentford, Middlesex.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Calceolaria integrifolia.—In the favoured parts of the South-West this Calceolaria, referred to on page 27, is a delightful outdoor shrub; but even for those less favourably situated it is of considerable value. Where a greenhouse or conservatory has to be kept gay at all seasons, large bushes of it may be grown, and will keep up a display of flowers for months together. Again, Calceolaria integrifolia can be used for bedding, and in this way it will yield a display of flowers throughout the latter part of the summer and well on into the autumn. It is indeed strange that such a fine Calceolaria, though by no means a novelty, should only have been rescued from neglect within the last few years, for it seems quite proof against any disease; but it is, where possible, seen at its best as an open bush.—H. P.

Foliage for bulbs in pots.—I do not know if many people use at this time of year a very pretty foliage for their bowls of Hyacinths and other bulbs, which, grown alone, look somewhat bare. I use the foliage of Cow's Parsley, carefully pulling it up by the roots and putting it in between the stones and fibre in bowls. The smallest plant soon grows and throws out pretty Fern-like leaves.—JESSIE GODWIN AUSTEN.

Winter colours and flowers.—The interesting notes on page 13, if worked out in detail, would fill a fair-sized volume and, when put in practice, invest a garden with singular charm. To different natures the character of a garden in winter appeals in diverse ways, so that the garden in winter will still reflect the mind of the owner, and where this interest is spread over the various sections of hardy plants it will never be really difficult to bridge the winter with beauty and interest. In supplementing the notes already referred to, I particularly offer suggestions to those having a strong limestone soil. Under such conditions four excellent evergreens are found in Arbutus Unedo, Azara microphylla, Choisya ternata (Mexican Orange Flower) and Viburnum Tinus (Laurustinus) French White. Their leaves are bright and glossy, and in each case different in form. The first and last flower in winter, and the Azara and Choisya in early spring. In addition, I would commend Osmanthus ilicifolius purpurea, which, though of a less deeply coloured purple at this season, is still very distinct. Further, in Thuya orientalis elegantissima we have a spiky tree, dwarf and compact, and, like all the foregoing, suitable for small gardens. In winter it glows with a bronzy purple colour on the leaves. Of fruiting shrubs for winter effect I find none to equal the Sea Buckthorn (Hippophaë rhamnoides). Of this common shrub there are beautiful examples to be met with in the Royal Gardens, Kew, and in the gardens of the Hon. Vicary Gibbs, Aldenham, Elstree, where under systematic training it assumes tree-like dimensions. Four years ago I planted a colony of fifty one year old plants, placing them 4 feet apart. A single stem was carried up perfectly straight, and by removing the lower branches a clean standard was formed of each. The second season from planting the most prominent female plants were selected and their number reduced to eighteen, the males likewise being reduced to half-a-dozen. Last winter a fair sprinkling of berries were produced, but this winter the fruits have crowded the branches, and in several instances have entirely covered them for over 1 foot in length. Birds do not appear to relish the fruit, as although visited by them in the early season, at this date, when the garden is almost destitute of other fruits, they still neglect the Sea Buckthorn, and as 80 per cent. of the berries still remain, the decorative effect obtained from this plant equals anything among deciduous shrubs at this season.—THOMAS SMITH, *Walmsgate Gardens, Louth.*

——The writer of the article on the above subject, which appeared on page 13, omitted to mention the extreme value of Bamboos in a winter garden; nor are they used nearly as much as might be expected. They are much more graceful than any evergreen shrub, possess a much brighter and better colour, and in the South of England two species appear to be thoroughly hardy—Phyllostachys aurea and Bambusa Métake. The former is one of the most useful plants we have in this garden and the most easily increased. Some ten

years ago we found one clump here ; since then we have nearly every year taken off large clumps to reduce its size, and we have now ten or twelve flourishing Bamboos of this kind, some in the open garden, on grass, or between two borders, exposed to every wind, and some planted to hide unsightly walls. They are always ornamental ; but it is especially in winter that they are appreciated, when the flowers near them have died down and the leaves are off the deciduous trees. The other kind mentioned, Bambusa Métake, appears to be equally hardy, but does not increase so fast, and is of much denser, heavier growth and not nearly so effective. I have tried several other kinds, given me from the Abbotsbury Gardens, but none has flourished, and I conclude the two I mentioned are the really hardy ones—suitable for a cold situation and a chalk soil. I am sure many gardens would be much improved by a judicious use of Bamboos.—E. M. HILL, *Trinity Rectory, Dorchester.*

——The interesting article in THE GARDEN of January 8 (page 13) calls to mind the great wealth of material available for winter colour. The garden is so often spoken of in the winter as being "dull." There is certainly not the flaming colour of summer, but a certain quiet beauty that well fits the season. Even such a prosaic thing as a Gooseberry bush, with the ground forked beneath, gives a pleasing study in contrast, or a Peach tree, with varying shades of green and red, on an old grey wall. The subjects mentioned below, although by no means exhaustive, all give a certain beauty to the landscape—the Olearias, with their grey foliage, which is specially noticeable when the wind ruffles the leaves ; the winter-flowering Heaths (Ericas), such as E. mediterranea hybrida and E. carnea, also the white form of the latter ; the common Furze (Ulex), with its yellow flowers, looks very bright ; and the Fire Thorn (Cratægus) must not be overlooked ; Lelandii is the best form. The common Barberry (Berberis) is effective with its purple foliage, but wants a light background to be seen to full advantage. Sea Buckthorn (Hippophaë) gives a fine piece of colour with its orange berries, and even those with no berries (the male plants) give variety to the view by reason of the uncommon shade of green and the grey under side. The winter-flowering Clematises (C. balearica and C. cirrhosa), the former with whitish flowers dotted with red and the latter with white, are useful. Old trees of the Arbutus (Strawberry Tree) when cut down send out branches of beautiful red shades. Even such a sombre thing as the Evergreen Oak gives a variety of colouring when several are grouped together, by reason of the different shades varying from a deep Prussian green to quite a light shade of green. Roses must by no means be overlooked, their bright scarlet heps giving a most welcome touch of colour. The Japanese Roses are excellent with their dull brown stems and berries attached, also the Penzance Briars, while that beautiful climbing Rose Una is indispensable, keeping its fruit over a long season. The common Bay is interesting with its purplish black fruits, while, of course, such subjects as the Guelder Rose (Viburnum), Aucuba and the host of variegated shrubs need not be mentioned ; they will be found in any good nurseryman's catalogue. A rather despised plant is the Honesty (Lunaria) ; if a few are allowed to stand in sheltered spots from the wind, they give a fine effect with their silvery whiteness under trees and shrubs, besides ensuring a constant succession each season. A Wallflower that deserves special mention is known both as Early Paris and Parisian Early. This when sown during April or May will begin flowering in November, and keep well on until the other Wallflowers are over. Of course, during a severe spell of weather it ceases, but with a few mild days it makes a brave display again. It is almost perpetual blooming, and varies in colour from yellow to brown.—W. P. WOOD, *St. Peters, Kent.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

THE cleansing and tying of all Peaches and Nectarines in late houses must be attended to at once. In tying the trees care must be taken not to get the wood crowded. This is a fault which often occurs, and there is no gain to be obtained from the practice.

Early Vines.—Great care is required in airing the early house. During bright days, when a little air can be admitted, it must be only from the top, avoiding any draughts. High night temperatures must not be allowed, 55° to 60° being quite sufficient till the flowers open.

Grape Muscat of Alexandria.—This is a very good time for starting Vines of the above variety. Give the rods and the house a thorough cleansing and close the ventilators. Syringe the Vines on bright days.

PLANTS UNDER GLASS.

The propagation of all stock required for bedding purposes must be proceeded with in earnest now. Roots of Salvia patens should be potted and placed in a warm house to start them into growth to obtain cuttings ; the same with S. splendens. Cuttings of Chrysanthemums that are rooted should be potted before becoming too pot-bound. Cyclamens pricked off into boxes may be potted off singly into 2½-inch pots and kept in a warm house. Seed should now be sown of Browallia speciosa, Torenia Fourneri, Impatiens, Balsams, Acacia dealbata, Eucalyptus, Vinca and Exacum macranthum. These will all be found useful for conservatory and greenhouse decoration during the summer.

Malmaison Carnations.—Plants that were rooted last July or August and which are still in 3-inch pots must be potted on without delay. A mixture of one-third good fibrous loam, one-third rotten manure and one-third sand (sea sand for preference), adding to this a little soot and old mortar rubble, will be found an excellent soil for them. If the plants are strong, 6-inch pots may be used ; if at all weak or small, 4½-inch pots will be found large enough. Firm potting is advisable and great care must be taken in watering. Established plants should be looked over occasionally for rust, which must be cut out and burned.

THE FLOWER GARDEN.

Summer Chrysanthemums.—These may now be propagated by dibbling the cuttings into boxes and placing them in a warm vinery or Peach-house, where they will root readily. They are very useful for summer and autumn displays in beds and borders, also for cutting. The following varieties will be found to be very good : Horace Martin, yellow ; Robbie Burns, pink ; Pink Marie Massé ; Market White ; Marie Massé, crimson ; Goacher's Crimson ; Crimson Queen ; Carrie and Mrs. W. Sydenham.

Sweet Peas.—These should now be sown in pots. The up-to-date method is one seed in a pot, and it is undoubtedly the best plan. Use 2½-inch pots filled with a mixture of half loam and half old hot-bed material. When sown place in a cool house till germination takes place ; then remove them to a cold frame. Give plenty of air at every opportunity to keep the plants sturdy.

THE KITCHEN GARDEN.

Parsley.—This is usually in constant demand, and where sharp weather has stopped the growth a few roots may be lifted and placed in a frame with a little bottom-heat. A very good plan is to sow a little seed now in heat, pricking off in boxes the seedlings as soon as large enough to handle. This will make an excellent early supply.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

INDOOR GARDEN.

POT ROSES.—The main batch of these should now be pruned and introduced to a little warmth if this has not already been done. In pruning remove all weak shoots and shorten back slightly the strong growths. If a good crop of useful flowers is what is wanted, the pruning must be slight ; but, of course, where very large blooms are required, rather severe pruning is essential. After placing in heat great care is necessary not to over-water, for at this season the roots are almost dormant, and very slight moisture is all that is required to induce activity.

Bulbs in Pots.—These will for the most part be in active growth, and gentle feeding with weak liquid manure or Ichthemic Guano used in a liquid state is very helpful. This not only strengthens the flower-spikes, but adds greatly to the depth of colour in the flowers. Daffodils especially seem to greatly appreciate this feeding. The guano should be given about twice a week and used at the rate of a tablespoonful to a gallon of water. Freesias should be neatly staked in good time, or the effect will be entirely spoiled. A good and easy method of staking both these and Daffodils is to place slender green stakes round the pots, looping with Raffiatape. When this is done the staking is practically invisible, and the plants present a neat and natural appearance.

Antirrhinums.—The new varieties of these are among our most useful and brilliant late summer and autumn flowers. I shall never forget the grand show of this plant in the Hopetoun House Gardens in the autumn of 1908. Mr. Hay had in one glorious mass some 2,000 plants, and these comprised all the finest shades of colour from deepest crimson to pure white, and from the tallest to the dwarfest. It was a noble sight, and proved that this simple plant if properly used can make a display that cannot be surpassed by any other flower. Seed should be sown now if fine, sturdy plants are to be had for planting in May. Shallow pans or boxes of fine light soil should be used and the seed scattered thinly and evenly. Press into the surface with a smooth board and cover very slightly with finely sifted compost. Strong heat is not necessary to germinate this seed, but if a temperature of about 60° can be given, the young plants will soon make their appearance. As soon as through the soil get the boxes as close to the glass as possible.

KITCHEN GARDEN.

Kidney Beans.—Unless a house or pit can be given over to the culture of this fine vegetable, it is almost useless to attempt forcing it, because red spider almost invariably attacks it sooner or later, and may ruin more valuable plants if grown in the same structure. The finest lot of dwarf Beans I ever saw were grown in old Chrysanthemum pots. The Chrysanthemums had been simply pulled out and the soil slightly loosened on the surface. Six or seven Beans had been planted in each 8-inch pot, the result being everything that could be desired. The variety was Ne Plus Ultra.

Peas.—The very first opportunity when the soil is in a workable condition must be taken to get in a sowing of early Peas. On heavy land it is an advantage to have at hand some perfectly dry old potting soil, and to place a layer in the bottom of the drill before sowing the seeds. Cover with a little more of the same, and then return the natural soil. I always think that it is an advantage not to sow these early Peas very deep, but to leave a ridge of soil over the rows. This gives all the protection necessary, and yet allows more heat and less excessive moisture to reach the seeds. A hardy variety like The Pilot or Early Bountiful should be selected.

C. BLAIR.
(Gardener to Seton Thomson, Esq
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THE GREENHOUSE.

THE MEDUSA'S HEAD ORCHID.

SINGAPORE is the home of Bulbophyllum or Cirrhopetalum Medusæ, and though many of the flowers of the Orchid family assume curious forms, yet this stands out as one of the most quaint and grotesque. The specific name was suggested to Dr. Lindley by the spike of flowers, which somewhat resembles a head with long, untidy hair. The flowers are small but very numerous, crowded into a compact head or capitulum. The sepals are the showy part of the flower, being cream-coloured, spotted with red. The two lateral sepals are lengthened out into pendent, hair-like streamers about 5 inches long. The superior sepal is comparatively short, while the petals are small and insignificant. The pseudo-bulbs are dark brown, ovate and four-sided, and from each springs a solitary fleshy leaf about 6 inches long. The scape rises from the base of the pseudo-bulb and is clothed with yellowish green bracts. Like other tropical Bulbophyllums, the plant requires a warm and moist atmosphere and should not be entirely dried off in the resting season.

Glasnevin. C. F. BALL.

BORDER CARNATIONS IN COLD FRAMES.

BORDER Carnations which are being wintered in cold frames will require attention, chiefly in the matters of preserving cleanliness and admitting abundance of air on all occasions when the weather permits. Some of the plants will require water occasionally, but it must be applied early in the morning to ensure a dry atmosphere at night when the frames are closed. Rearrange the plants at intervals, lightly stir the surface of the soil, remove all dead foliage, and if there are any signs of slugs, these should be sought for and destroyed. A rather heavy dressing of soot applied to the beds on which the plants are arranged will go a long way in keeping slugs and also worms in check. If the lights are dirty, choose a fine day and have them thoroughly cleansed, as it is important that the plants receive the full benefit of light, sun and air. By the end of February the plants will begin to root more freely, and should the weather be mild they will require more water. The lights at that time must be gradually dispensed with, using them only in the event of frost or heavy storms. Plants treated in this way will be in good condition for planting out by the end of March, or even earlier in some districts.

A GOOD GREENHOUSE PLANT.

ALTHOUGH almost hardy, Trachelium cæruleum is a subject well worthy of culture in the greenhouse. It is a plant that can be easily grown from seed or from cuttings, and the amateur who appreciates blue-flowering plants should certainly give it a trial. It grows about 2 feet high, and has large, loose, corymbose heads of small blue flowers. Seed ought to be sown in light soil early in the year to produce nice flowering plants the following summer. The seed germinates quickly, and the young plants should be pricked off and potted on as required, 4½-inch pots being suitable for the final shift. Loam, well-decayed manure and sand thoroughly mixed form a compost in which the plant will grow vigorously. Arrange the plants in a light position in the greenhouse. Afford water as required, with occasional aid in the way of clear soot-water and well-diluted manure-water as the pots become filled with roots and the flower-heads appear; when the flowers open use clear water only. They remain a long time in flower when placed in a fairly dry atmosphere, but must not be allowed to suffer though dryness at the roots. Cuttings made from the young shoots (which spring up from the base of plants in the autumn) quickly root if inserted in pots filled with sandy soil. A late batch of cuttings can be grown into very pretty little plants for flowering in 3-inch pots. Plants of this size always have a charm of their own and are invaluable to the decorator. COLIN RUSE.

THE MEDUSA'S HEAD ORCHID IN IRELAND.

THE FRUIT GARDEN.

ON THE CARE AND MANAGEMENT OF ORCHARDS.—I.

FOR some years past I have had opportunities not only of inspecting many orchards in various parts of the country, but also of conferring with their owners or managers as regards the effective (or otherwise) management of the same. On one large estate I was told by the agent, who had to grow and provide trees for planting orchards, that during the past twenty-five years over 20,000 trees had been provided, and when asked his opinion as to how many of these trees were now alive and doing well, he said, "Certainly not more than seven thousand!" A similar experience on a large estate in the West of England was given by another gentleman who was responsible for supplying trees in a similar way. Now, when we consider the thousands of acres of orchards which have been planted in this country during the last twenty or thirty years, the loss to the owners, considered in the light of the experience given above, would be enormous. It has, I think, been conclusively proved that the injury caused to the trees is sustained while they are young through the want of proper attention and care during the first few years of their life. This, I think, is proved beyond doubt by the fact that many proprietors of orchards attached to farms and other holdings on their estates have lately resolved not only to plant the trees themselves, but also to take over the care and responsibility of looking after them for the first ten years. A wise resolve! If all owners of newly planted orchards would do the same we should then hear much less about the failure of our orchard fruit trees to bear good crops in the future than has (justly) been the complaint in the past. By reason of the enormously increased consumption of fruit (Apples especially) among the public of late years, and with every prospect of a further great expansion in the same direction, orchards, whether of one acre or of ten, when the trees are healthy, vigorous and fruitful, are an asset of great and increasing value to any property to which they may be attached. The testimony above given, which will be confirmed by all practical growers of experience, goes to show that it is in the early stages of their growth that the trees of our orchards are crippled and often practically rendered useless by bad management. This evidence also discloses another fact, namely, that from one cause or another those to whose care the young trees have been entrusted in the past have, generally speaking, signally failed to bring about the success desired. It is in the hope of being of service to all such as are desirous of learning that these notes have been penned on the care of fruit trees after planting. I propose, in the first instance, to deal with some of the

TUBERS (EDIBLE) OF THE PERUVIAN NASTURTIUM (TROPÆOLUM TUBEROSUM). (*See page 55.*)

most fruitful causes which bring about these failures.

PLANTING IN UNSUITABLE SOIL.

Before the decision is taken of planting an orchard on a certain piece of land, that man will be badly advised if he has not beforehand made sure by consulting those who know (if he does not know himself) whether the land is suitable for the growth of fruit trees or not. It not infrequently happens that the cause of failure is entirely due to the nature and quality of the soil being totally unfitted to their growth, sometimes being a thin and naturally poor soil resting on gravel. It is hopeless to expect success to result under such conditions without incurring enormous expense in preparing the land for planting, in which case the end would not justify the means. Heavy clay land, inadequately drained, is again often the cause of failure. Not that it follows that trees planted in heavy land will not produce satisfactory results; but it goes without saying that it must be effectively drained. The result unquestionably would be more satisfactory and permanent by a judicious selection of varieties of Apples, Pears and Plums which are known to succeed better than others in soil of this description. I will now take an Apple orchard, as being the most important of all our hardy fruits, and follow its course from the time it is planted until it has thoroughly established itself and is more or less able to take care of itself. I must take it for granted that the land in which the planting takes place has been deeply trenched and a moderate quantity of well-rotted manure added, unless the soil happens to be a deep rich loam, in which case no manure will be needed; but a moderate addition of fresh lime to such soil at the time it is trenched preparatory to planting would be found a great advantage. May I here sound a note of warning against planting trees in square or round holes dug out to receive them, especially on land which has not previously been deeply trenched. The walls or the sides of such holes are so hard, and the bottoms also, generally, that in wet weather they form perfectly water-tight compartments, making it impossible for water to escape from the roots of the trees for weeks together, to their great injury. Instead of digging holes, let the strip of land on which a row of trees is to be planted be trenched 3 feet deep all its length for a width of 8 feet and the bottom well broken up, when the trees will flourish as well again as they would do if planted in holes. Another strip by the side of this one can be trenched, say, in the course of three or four years' time, and so on until the whole orchard has been trenched. The land so trenched could be cropped between the trees with Potatoes or some other vegetable for a few years, until the trees by their increased growth had appropriated the space to themselves, bearing in mind always not to crop within 5 feet of the stem of the tree.

FIRM PLANTING.

There is plenty of time left yet for the successful planting of orchards. It is important to plant, if possible, when the soil is fairly dry; it is then in better condition for tightly pressing round the roots as planting proceeds. The first thing to do after a young tree is securely planted is to be provided with a strong stake, pressing it deeply into the soil to give it a proper grip of the ground to hold the tree firm in stormy weather. The tying of the tree to the stake is a simple but an important process, only very few amateurs knowing how it should be done. There should be three ties to the stake—one 18 inches from the bottom, one in the middle, and one within about 3 inches of the top of the stake. A strip of thin cloth or carpet about 2 inches wide should be tied round the stem of the tree at the points where the ties are to be. The best material for securing the trees to the stakes is strong tarred string. This must be coiled twice round the stake before it is placed round the stem of the tree, in order to prevent the tie afterwards slipping up and down out of position and often causing the bark of the tree to be damaged. The tree must be securely fastened to the stake, and the ties examined every year to see that they do not cut into the bark by reason of the swelling of the stem by its annual growth.

OWEN THOMAS.

(To be continued.)

SOME GOOD PLUMS FOR POT AND OUTDOOR CULTURE.

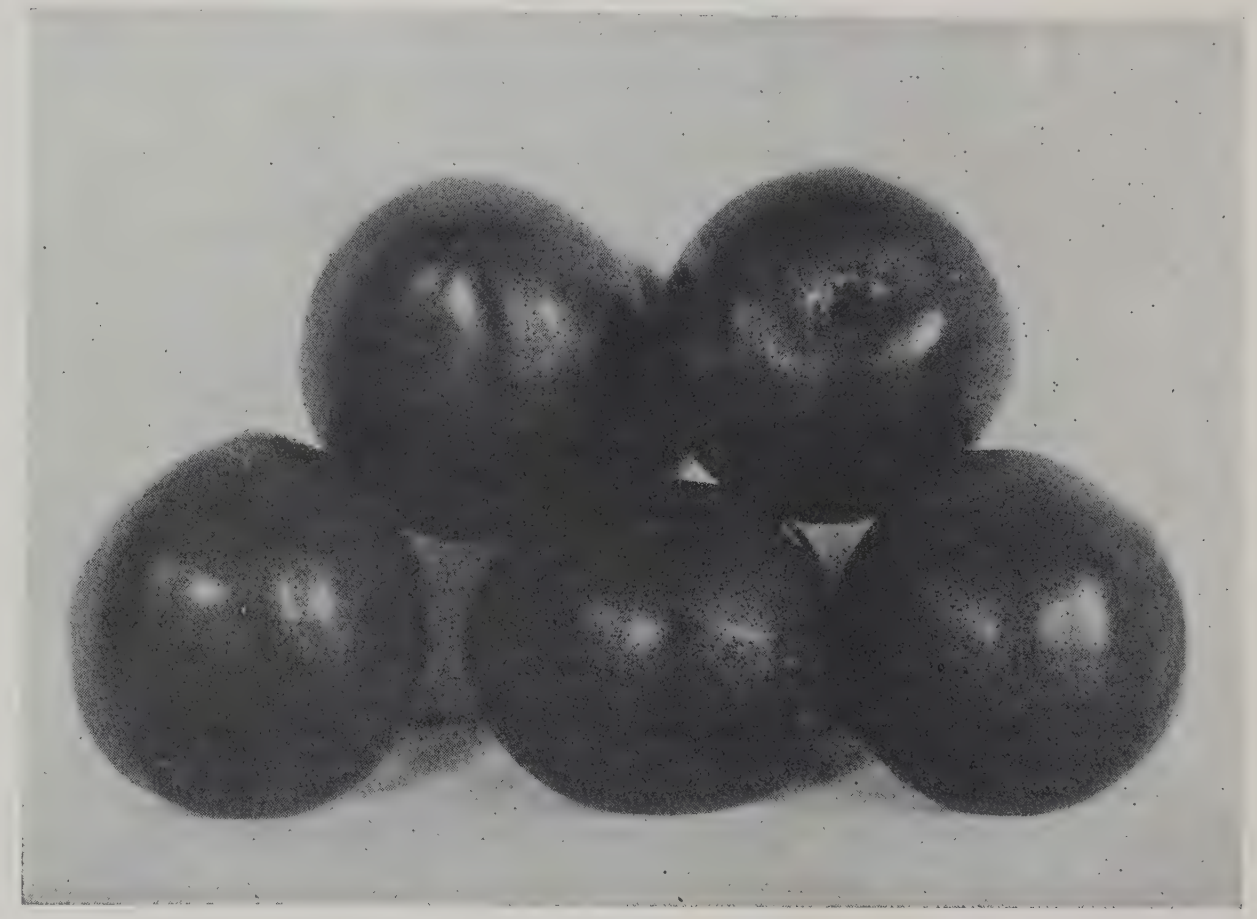
THE Plum is now much more in favour as a forced fruit than was formerly the case, and few fruits give a better return when grown in pots. In the northern part of the kingdom the Plum-house is a feature of most gardens, and in it the trees are planted out. The variety illustrated, Grand Duke, is a great favourite, being one of the latest of the dessert Plums, and does well when planted out against a trellis or back wall. I have alluded to pot culture, and by this means the amateur can grow the Plum under glass and thus secure an almost certain crop. The trees do not occupy the house the whole season, so that for a considerable period it is available for other purposes. Many years ago, when visiting the late Mr. Dunn at Dalkeith, I saw some remarkably fine fruits of the Plum on trees planted out in a large house, and Mr. Dunn remarked that we do not grow these fruits sufficiently, as they require simple culture and give such luscious produce. The following are excellent dessert varieties, ripening in the order named. The Gages preponderate, as they are equal in quality to the best Peach or Nectarine when grown under glass:

Oullin's Golden Gage.—A distinct Gage and a large, roundish oval fruit, very early. On a south-west wall in a warm summer I have had ripe fruits of this at the end of July. A fine variety for pot culture and a good cropper.

Early Transparent Gage.—One of Messrs. Rivers's seedlings and a very beautiful fruit; large, round and greenish yellow in colour, very much blotched with crimson on the sunny side; flesh firm and one of the richest Plums we have. It is a true Gage; the tree is a free grower and bears well. In planting do not give rich manures, as the growth is too robust. It is an excellent plan with heavy soil to give a liberal addition of burnt garden refuse. Ripens early August.

Denniston's Superb.—Also a Gage and one that ripens after the last-named. It is a round greenish fruit, large, rich and juicy. It is about ten days or a fortnight earlier than the well-known Green Gage (or Reine Claude de Bavay of the French). It makes a good wall fruit, but may be grown in any form in the South. I have had splendid returns from pyramid trees. It ripens about the middle of August grown thus.

Green Gage or Reine Claude de Bavay.—This well-known variety is not a success in all soils, but when it succeeds it is a delicious fruit. It is round, of medium size and has a rich juicy flavour. It ripens at the end of August. One of the reasons this variety fails is that it is a very strong grower in rich soils, and the roots should be pruned freely. I have seen closely cut wall trees of this variety bear very scanty crops, whereas when root-pruned it has been a great success. In a hard winter the birds are very fond of the fruit-buds.



A GOOD LATE DESSERT PLUM: GRAND DUKE.

Jefferson.—We now come to the September Plums, and here there are some delicious fruits. The one noted is a fine Gage of American origin, but equally as good as our own. An oval, large fruit, spotted with red; ripens early in September; rich. This does well in any form.

Transparent Gage.—A large, roundish oval Plum, a rich fruit, in season the middle of September, a very free grower, good bearer, and one of the few that do well grown as cordons.

Kirke's Blue.—An old but good variety; roundish oval and purple fruit, rich; a great cropper. This well repays root-pruning and is one of the hardiest of this family; ripe at the middle of September.

Late Transparent Gage.—Somewhat like the earlier Transparents noted above, but much later, though equal in quality. A large, oval fruit with a yellow purplish skin, a dwarf grower and a very fine amateur's variety.

Late Orange.—Valuable for its lateness, as this fruit is at its best in October, and keeps well. The skin is a bright orange covered with dense bloom. A new and valuable addition to the late varieties.

G. WYTHES.

THE ROSE GARDEN.

STANDARD TEA ROSES UNDER GLASS.

VISITORS to the Temple Shows during recent years must have admired the beautiful Tea Roses grown upon standards that have been exhibited in some of the Rose groups. There is such an elegance in their semi-drooping growths or the fine spreading heads, and there is no reason why very large specimens should not be developed, provided they are placed in suitable pots or tubs. If these standard Teas are desired one must pot them up, for rarely are they obtainable from the nurseryman; and although I advise doing this work in November, yet it is not too late even now. I see no reason why good rooted standard Briars should not be potted up and budded in due course. If this is done the pots should be plunged in the soil outdoors and the Briars budded at the same time as ordinary standards. In the November following they could be brought under cover and the Briar shoots cut back to within 4 inches or 5 inches from where budded, and in due course the buds would start into growth.

I would, however, prefer to put up one year old standards, first taking care that they have plenty of good fibrous roots. This is one of the secrets of success. A standard Tea Rose does not require repotting every year; in fact, such a course is not desirable. They seem to flourish much better if the roots are undisturbed for two or three years. Of course, top-dressing is necessary, and this is best done in autumn. Remove 3 inches or 4 inches of the soil, then give a good dressing of Clay's Fertilizer or other good artificial manure, and cover this with some good compost consisting of equal parts loam, well-decayed manure and leaf-soil. In the spring they receive once or twice a dressing of artificial manure, which is well watered in, and, of course, when in full growth and buds are showing, liquid manure will greatly benefit them.

Standard Tea Roses of some varieties succeed well in a very moderate warmth indeed, and produce finer blooms than when forced in strong heat. I have had enormous blooms from standards of such sorts as Medea, White Maman Cochet, Anna Olivier and Souvenir de Pierre Notting. It is this large-flowered exhibition type I would recommend to be grown. One would obtain superb blooms equalling any seen at the shows, for the plants are so perfectly under control that by judicious thinning and disbudding one should be able to surpass outdoor Roses in quality. Some may say, But why have standard Roses? Would not dwarf do as well? I reply, No, for all who cultivate Tea Roses know very well that the best blooms are obtained from standards or half-standards. Do not have the standards too tall. Two and a-half feet to 3 feet would be best, as they can always be raised on pots if desired. Another useful point is gained from growing these Teas in pots, especially the newer sorts, such as W. R. Smith and Molly Sharman Crawford, and that is they furnish us with some fine buds for budding. P.

ROSE DOROTHY PERKINS AS A STANDARD.

THE value of this beautiful Rose for use as a weeping standard is now fully appreciated by all Rose-lovers, and we have at various times published illustrations of it grown in this way. The plant now illustrated is growing in the garden of Mrs. Malcolm Thompson, The Old Malthouse, Worplesdon, Surrey, and is from a photograph kindly sent by her. In writing, Mrs. Malcolm Thompson mentioned that it is trained over the "Coronal" Rose trainer, and, as will be seen, this holds the shoots out well away from the stem.

ROSE DOROTHY PERKINS.

PROTECTING STANDARD ROSES.

HAVING got thus far favourably through the season, it is only natural to expect that before long severe weather will come. Perhaps when it does the following suggestion may be welcome to some readers of THE GARDEN. It is a practice the worth of which I can vouch for. Procure some straw cases, such as are used to pack bottles in, cut them open top and bottom, and place round the Rose tree heads. All small-headed trees—the Teas, for example—can usually be tied together, so that one case will be sufficient.

Highgate. C. T.

THE FLOWER GARDEN.

SWEET PEA CHAT.

WEM SEEDS.—It does not seem possible that anyone could build up a name so essentially associated with a particular thing such as has been achieved by Henry Eckford. Whenever or wherever Sweet Peas are mentioned, the minds of all present turn direct to Wem, for they regard it, and justly so, as the birthplace of the present marvellous popularity of the flower. During the past three decades tons of Sweet Peas have been distributed from this centre, and for many years it was expected that Henry Eckford would give us each season at least some novelties that were conspicuously superior to those which emanated from other sources. It is so at the present time, but there are so many others participating in the industry that the Eckford novelties cannot hope to attain to such wonderful positions. However, they come and they will come, and those who still continue to accept Wem as the hall-mark of excellence cannot go far astray. This season the novelties form a trio, and each is distinct from any variety of its shade of colour. Vicomte de Janzé is bright, deep rose, and the form of the flower is perfect; it is perhaps well to note that it does not belong to the waved group, and it may, therefore, be accepted that Mr. Eckford still considers there is room for sorts of superlative merit that belong to the old-fashioned group, and it may be added that there are many who will agree with him in this. Mary Vipan is also rose, but it is exquisitely waved and is altogether a most charming variety. The third of the trio is Mrs. E. Gilman, and of this the ground colour is cream and the suffusions brilliant rose. Apart from its effectiveness in the garden, this makes an especially delightful bunch and will assuredly be welcomed by exhibitors. It would be an endless task to draw attention to the splendid varieties which have come from Wem in previous seasons, and it must suffice to say that Mr. Eckford catalogues everything that is worth growing, and is ready and willing to supply separate packets at stated prices, or to make up collections that will suit the cottage or the castle, and in which the selections are most admirable.

PHILADELPHIAN SEEDS.—If there is one American above another who is most welcome in the British Sweet Pea world it is W. Atlee Burpee of Philadelphia. He is a man among men in stature and geniality, and what he does not know about Sweet Peas is not worth knowing. He has sent us many Spencer varieties of conspicuous excellence, and some of them have not come true to name; but we are used to that from home-grown as well as from imported seeds. Mr. Burpee's novelties are here.

BIRMINGHAM SEEDS.—The name of Sydenham has become a household word with those who grow bulbs and Sweet Peas, and Mr. Robert Sydenham has steadily built up one of the largest businesses in the country in the Queen of Annuals. He may be best described as the "Collection" man.

Hudson & Kearns, Ltd., Printers, London, S.E.

PENTSTEMON MYDDLETON GEM.

He makes up collections at different prices and says plainly what each one contains. If you do not care for the contents of one you are at liberty to choose another; but if you want to do just the right thing you take the lot, and find that you have all the leading standard varieties at your command. Mr. Sydenham is quite honest in that he does not claim that all his seeds are grown in this country, and he will not go as far as to guarantee the trueness of any of the waved standard varieties; in this latter he is wise.

WISBECH SEEDS.—The Floral Farms of Messrs. R. H. Bath, Limited, at Wisbech have long been famous for the excellent seeds and plants which they produce, and the reputation that is now being made for the reliability of their Sweet Peas is an enviable one. The system of stating whether a variety is fixed, and, if not, of giving the approximate percentage of purity, is a good one, and will doubtless be copied. In addition to the standard sorts and the American novelties, Messrs. Bath offer four new ones. Azure Fairy needs no description; Distinction is described as an improved Elise Herbert, and must, therefore, be good; Lilac Queen, again, is blessed with an understandable name, as also is Sweet Lavender, of which the ground is white and the marbling lavender. SPENCER.

SOME SPRING-FLOWERING ROCKFOILS.

AMONG the early flowering Rockfoils are to be found some of the daintiest of alpines, and withal the loveliest. These early Rockfoils belong to the Kabschia section of Saxifraga, and are nearly all characterised by having sharp, needle-like leaves densely crowded on short, stiff stems; these latter, being also crowded, form mat-like masses of low evergreen growth. When grown in large masses, in which case they are always most effective, the diversity of colouring exhibited by the leaves of the various kinds leads to a gentle contrast which is altogether pleasing, so that even when out of flower no awkward vacancy occurs, as the evergreen stems remain to carpet the ground with life.

One of the commonest of this section, an easy plant to grow, and one that always yields a generous harvest of flowers, is Saxifraga apiculata. It forms a dense green carpet with its stems, and soon spreads into 3-feet wide masses, producing pale sulphur yellow flowers in clustered heads upon 4-inch stems during March and April. While admittedly one of the commonest, it is also one of the most effective plants for garden decoration. It calls for no particular culture, growing freely on any gentle slope if provided with good soil and planted in a position fully exposed to sun.

S. sancta and S. juniperina resemble this species in their habit, but the flowers are carried on dwarfer stems and are of a bright buttercup yellow in colour. The growth is very deep green and exceedingly neat, but the flowers are not equal in beauty to those of S. apiculata.

S. burseriana is a species of much beauty. Introduced from the Eastern European Alps in 1826, it is still one of the most prized of hardy plants. It is a variable species in flower, though always within well-defined limits. The type forms a low, rounded cushion of stems only 1 inch above the ground level; the leaves are needle-like, closely surrounding the stem, and so giving an impression of Juniper points. The colour is a deep bronzy green overlaid with the faintest deposit of lime, thereby giving the leaves a silvery appearance. The flower-buds appear in February, and are borne singly upon bright red stems about 3 inches high. The flowers unfold in March and are about 1 inch across, being relatively large for such a tiny plant. They are white, relieved by the pale yellow centre. In the form known as major the leaves are much more silvery in appearance, while the habit is coarser and less dense, the stems being also stiffer and bolder. In general the flowers resemble the type, though at times the petals exhibit a distinct frilling that increases their beauty.

THOMAS SMITH.

Walmsgate Gardens, Louth.

THE PERUVIAN NASTURTIUM.

(TROPÆOLUM TUBEROSUM.)

ONE of the prettiest of our dwarf climbing plants is Tropæolum tuberosum (the Peruvian Nasturtium), a graceful plant whose shapely foliage and bright flowers of showy scarlet and yellow afford us subjects of considerable value in the garden. The long, slender stalks add to the appearance of the blooms, and the whole aspect of this Tropæolum is pleasing in the extreme.

It has but two defects, and these are not existent in every garden. The first is that it is only half-hardy save in the mildest parts of the country, and the second that it is shy in producing its flowers in many gardens. There is no remedy for the first defect; but the tubers should be lifted in autumn before severe frost has come and, when the foliage has withered, stored, preferably in dry sand in a frost-proof place, until April, when they should be replanted about 4 inches to 6 inches deep, the latter being the more suitable depth. Its shy flowering is very pronounced in some gardens, and it has been surmised, with some measure of evidence, that there are two forms at least, one being much freer in flower than the other. Much may be done, however, to induce this Tropæolum to flower, and it may be mentioned that it should have a poor and dry soil, with ample drainage, and that old mortar has been added to the soil with advantage to reduce the fertility and moisture it contained and to induce greater freedom of flowering. A sunny situation should also be given, especially in the cold districts.

It is best allowed to ramble over some rough twiggy branches, but is sometimes trained to pieces of twine running in a vertical position. It may be mentioned that the tubers of this Tropæolum, three of which are shown in the illustration on page 52, are edible when boiled. The plant was introduced from Peru in 1827.

Dumfries. S. ARNOTT.

COLOURED PLATE.

PLATE 1392.

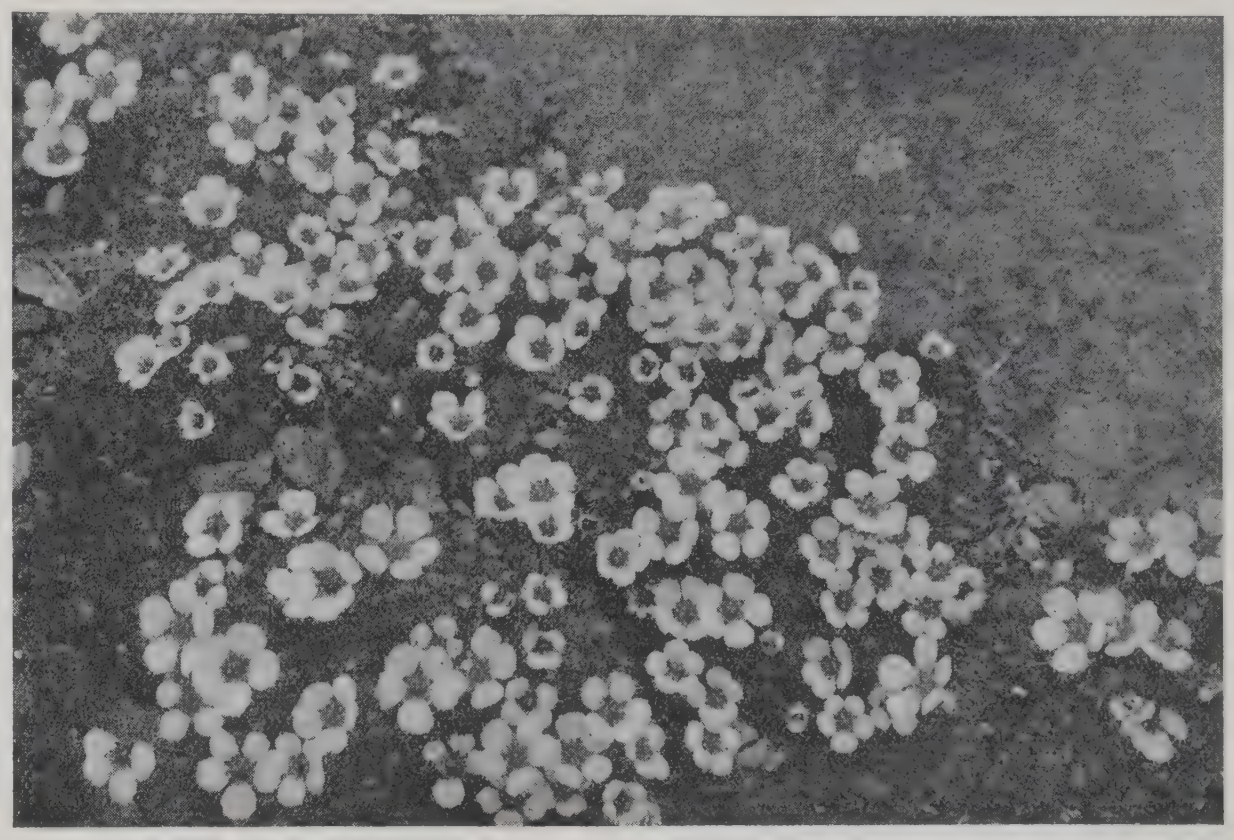
PENTSTEMON MYDDLETON GEM.

AMONG the many beautiful varieties of Pentstemon now in existence are to be found some of our most valuable summer bedding plants, especially where large beds requiring plants of bold yet graceful character are to be filled. An isolated bed on a well-kept lawn may be regarded as an ideal position for these plants, and their culture is by no means difficult, a well-cultivated and moderately rich soil that is well drained suiting them to perfection.

Propagation is usually effected by cuttings made from young, non-flowering shoots, these being detached with a slight heel about mid-September, planted in a sandy soil in a cold frame and given similar treatment to that afforded the cuttings of bedding Calceolarias, all that is needed being to keep out severe frosts.

They may be also raised from seed sown in boxes of sandy soil under glass at the present time, a temperature ranging from 55° to 60° Fahr. being suitable for germination. When the seedlings are large enough they must be pricked off, 3 inches apart, into other boxes or pans containing soil composed of good loam two parts, peat or leaf-soil one part, and a good amount of coarse sand. After due hardening off these seedlings will be ready for planting out early in May, at about the same time that those raised from cuttings are put out.

During recent years the Pentstemon has been very much improved, both in habit and colour of the flowers, the charming varieties Newbury Gem and Southgate Gem being instances of this. The variety shown in the accompanying coloured plate, and named Myddleton Gem, is the latest addition to this compact yet free-branching type, and will doubtless prove equally as valuable for bedding. It was shown by Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, before the floral committee of the Royal Horticultural Society on September 28 last, when it received an award of merit. We are indebted to Messrs. Wallace for the flowers from which the plate was prepared.



AN EARLY-FLOWERING ROCKFOIL (SAXIFRAGA BURSERIANA).

GARDENING FOR BEGINNERS.

THE TREATMENT OF LEGGY PLANTS.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—Where Mint is required early—and as Easter falls on an early date this year such is likely to be the case in many gardens—some roots may be lifted and placed in shallow boxes for gentle forcing. A rather light soil which contains a large percentage of leaf-soil or Cocoanut fibre refuse is best, and only the strongest pieces of root should be chosen for the purpose. Lay them thinly on the soil in the boxes and cover with more soil to a depth of 1 inch. If placed in a moderately warm greenhouse these roots will before long produce shoots that will be most useful in the kitchen. The smaller roots may be planted to form new beds, having previously well dug the soil in a spot that is well drained. Mint is an easy plant to grow, and needs little attention beyond a thinning and replanting once in two or three years. Other herbs of a perennial character, such as Thyme, should also have attention at this season, dividing and replanting those clumps which have become overgrown. During wet or severe frosty weather the trimming and sharpening of Pea-sticks should be proceeded with, as at the time when these are required for use work is generally very abundant. After they have been prepared they should be tied into bundles according to their respective lengths and kept, if possible, in the dry.

Fruit Garden.—There is little, if anything, to be gained by delaying the pruning of Currants after this date, and therefore the work should be done and the whole plot put tidy. Red and White varieties are pruned in the same way, *i.e.*, all laterals not required for filling gaps are cut back to within 1½ inches of their bases, and where the bushes have attained the required size the leaders may also be cut back hard. Where summer pruning was properly carried out there will not be many long growths to remove, all that is necessary under such circumstances being to shorten the stumps that were left at that time. It is essential that every cut be made close to a bud, otherwise the wood left will die back to a bud, and a mining grub will in all probability gain access. The pruning of Black Currants consists of a general thinning out of old wood, cutting it as far back as possible. This is really best done as soon as the fruit has been gathered, but in most gardens the work is left until the winter. It is on the young wood that was formed last summer that the best Black Currants will be produced this, and it is the retention of such wood that we must work for. Where big-bud is present, all affected buds should be picked off, dropped into petroleum, and subsequently consigned to a fire.

Greenhouse and Frames.—All bulbous plants as they go out of flower, with the exception of Roman Hyacinths and any others which have been grown in fibre, water or pebbles, should be stood in a cool frame but be protected from severe frosts. If kept there until March or early April they may be planted outdoors in a vacant, out-of-the-way spot, where they can be allowed to remain undisturbed for several years. Treated thus, most kinds will regain strength and produce flowers of medium size, which come in useful for cutting. The exceptions quoted above are not worth keeping and should be thrown away. This may seem to many to be a great waste, but we must remember that the plants have been grown under very unnatural conditions and have become so weakened that their constitutions are irretrievably ruined. Look over the tuberous Begonia roots, and any which show signs of growth should be shaken free of the old soil and placed in Cocoanut fibre refuse in a temperature of 50° Fahr. and kept near the light. Under these conditions plenty of fibrous roots and sturdy green shoots will be formed, and when the latter are about 1½ inches long the tubers may be potted singly into 5-inch pots, using soil composed of loam two parts, peat or leaf-soil one part, and coarse sand and well-decayed manure half a part each. Place each tuber so that its upper surface is just covered with soil.

Rose Garden.—The mild weather experienced in many places over Christmas and early in January had its effect on the Rose bushes, and these were pushing forth their leaf-buds at a great pace. With the advent of cold, frosty weather these will certainly suffer; but we may console ourselves with the fact that, owing to the buds at the tops of the shoots having commenced growth, the basal buds have remained dormant and thereby escaped injury. At pruning-time, *i.e.*, the end of March or early in April, the damaged buds and wood will be cut away and the dormant buds thus induced to break. When the weather is open and the soil is in working order, planting not yet done may be carried out; but the sooner it is done the better. It is permissible when planting to remove a portion of long shoots to prevent the plants being unduly blown about by wind; but at least a foot should be left for cutting away at the proper pruning-time. A. A.

1.—A DRACÆNA PLANT WHICH HAS BECOME LEGGY; THAT IS, THE BARE STEM IS TOO LONG.

WHAT TO DO WITH LEGGY PLANTS.

OFTEN in the greenhouses of amateurs one finds plants of Dracæna and other families of the plant world which have, in the course of time, made long stems which are devoid of leaves, and the question frequently arises, What can we do with such specimens? In some cases these leggy plants, as they are usually termed, are of service, as, for example, when tall specimens are needed for the centre of a stage or group; but, generally speaking, those plants whose bottom leaves are close to the pot are the most serviceable.

Fortunately, the amateur with a greenhouse can make his or her leggy plants into compact specimens without much difficulty, and the accompanying illustrations of a Dracæna will, it is hoped, make the method of doing so plain to every beginner and amateur.

In Fig. 1 a Dracæna with a long, bare stem is shown. It will be noticed that the plant has a splendid head of leaves, and our object is to get the lower ones so that they nearly touch the pot. It should also be observed that there is a young

2.—THE SAME PLANT WITH A CUT MADE IN THE STEM TO FORM A TONGUE. A RING OF BARK MAY BE TAKEN AWAY INSTEAD, IF PREFERRED.

plant growing up from the base of the old one, which will be referred to later. Turning to Fig. 2, we find there the same plant shown on a larger scale, and in its stem a cut, made in an upward direction just below the lowest leaves, is plainly shown. It should be carefully noted that this cut is made about halfway through the stem in a sharply sloping direction and then carried upwards for about 1½ inches. To keep the cut open and thus form a tongue, a piece of a wooden match was inserted at the top of the wound and trimmed off level with the stem on each side. This cut is made with the object of inducing the plant to form roots from the tongue, just in the same way that a Carnation layer is induced to make roots.

Fig. 3 takes us another stage forward with the work. Here it will be seen a 2½-inch pot has been split lengthwise into half, and then bound tightly round the stem and held in position by three Bamboo canes, which are thrust firmly into the soil of the pot shown in Fig. 1. It should be noticed that the stout string is bound outside the

3.—A SMALL POT SPLIT IN HALVES AND THEN TIED ROUND THE WOUND. THIS IS FILLED WITH SUITABLE SOIL.

stakes, and treated thus the pot is made quite firm. After being fixed in position some pieces of broken pot are placed in the bottom of the pot, which is then filled to within half an inch of its rim with soil composed of rather rough fibrous loam two parts, coarse peat one part, and coarse sand one part, about six pieces of charcoal about the size of Barcelona Nuts being added at intervals as the work of filling proceeds. The soil should be tucked in firmly, but not made hard. Subsequently it must be kept moist, but not maintained in a sodden state, and the plant should be kept in the warmest part of the greenhouse. In the course of a month or two roots will be formed, and when it is seen that these are pushing their way through the bottom of the small pot the stem may be cut through with a sharp knife or small saw immediately beneath the pot, and the plant transferred to one of larger size.

Before proceeding further we will turn our attention to Fig. 4. Here we find the wound has been covered with a good-sized mass of sweet sphagnum moss, this being tied firmly in position. If this is maintained in a moist condition and the plant kept in a warm temperature, roots will form in the moss, and when their white tips can be seen outside the ball, the stem may be cut through as advised above and the plant potted into a small but well-drained pot, using the same soil mixture as advised for filling the small pot. After this repotting the plant, whether rooted in moss or a pot, must be kept in a rather close and moist atmosphere for about a fortnight and very carefully watered in the meantime, after which it may be gradually given more air and will quickly become an established specimen with leaves close to the soil. The best time for doing this work is early in March, as at that time growth is very active; but where a temperature of 55° can be maintained it may be carried out at once.

Some gardeners, instead of making a cut in the stem as shown in the illustration, remove a ring of bark, about an inch or rather more in length, from the stem just below the leaves and fix a pot or moss around it precisely as indicated; but, generally speaking, roots are longer in forming than they are from a cut, and the method illustrated is the best for the beginner to adopt. After the top has been removed we must see what can be done with the old stem. We have already noticed that a young plant is growing from the base, and if the old plant is carefully turned out of its pot this offset may be easily cut off with a few roots and potted into a small, well-drained pot, using soil as already advised. In all probability we shall also find some roots on the old plants which have become very much thickened and which are termed by gardeners "toes." These, too, may be removed, and if laid in some Cocoanut fibre refuse in a warm spot in the greenhouse and kept moist they will soon form shoots and new roots, and may then be carefully potted up as young plants.

This still leaves us with the old plant, which may be treated in two ways, viz., returned to its pot and placed in a warm greenhouse, where it will, during the course of the summer, most likely produce a number of side shoots (especially if kept rather dry at the roots and the stems syringed daily), which may be taken off when large enough, made into cuttings and rooted, or the stem may be cut into pieces 2 inches long, and these laid in Cocoanut fibre refuse in a close propagating-case where they can be kept moist. Under such conditions some of them will produce shoots and roots, when they can be transferred to small pots. If preferred, these pieces of stem may be split lengthwise and the cut surface laid on the fibre, some gardeners thinking that this induces roots and shoots to form more quickly. The beginner who wishes to investigate the matter might try some treated one way and some the other. It will be seen that from one old plant quite a number of new ones can be secured without very much trouble.

In addition to the Dracæna, several other plants, viz., Crotons, India-rubber Plant (Ficus elastica) and Araucaria excelsa, may have their tops rooted in the same way, but a warm, moist atmosphere is essential. The old stems of all these will, after the top has been removed, produce side shoots, which may be used as cuttings, and the India-rubber Plant may be cut up as advised for the Dracæna if desired, taking care, however, to secure one joint or leaf-scar to each piece. F. W.

FORCING PLANTS IN WINTER AND SPRING.

BEFORE Christmas the work of forcing is more difficult than it is after. To be successful in the forcing of fruits, flowers and vegetables we must have heat and moisture in due proportions.

Now, during the darkest days of winter, it is far more easy to obtain excessive moisture than excessive heat in this country. Excess of moisture chills, and so to counteract such an ill influence on plant-life we must provide, artificially, more heat. There is, therefore, more economy in forcing after Christmas than before. We are favoured at this time with more and more sunshine, and, therefore, we do not require as much artificial heat to accomplish our purpose. The production of artificial heat is costly; the creation of a suitably moist atmosphere at a time when the sun is gaining in power costs a minimum in labour only. Therefore, I strongly advise beginners to make a start at forcing now, and so learn the elementary part of the work.

Essential Points to Note.—All new shoots grow from dormant buds or crowns, either from the branch, bulb or root. When these buds and crowns commence to grow naturally their progress is gradual, especially so at first. When the new shoots are induced to grow under partly artificial conditions, they must not be unduly forced. Few roots are, as a rule, made at first; it is the stored-up sap that is first used, and if this is violently exhausted, the plant, root or bulb is weakened considerably, and new roots are not formed in time to keep up the steady supply of sap and the produce is of poor quality. As the forced produce approaches full development it must be gradually hardened, so as to withstand a cool greenhouse temperature. The same conditions apply in the case of hard-wooded fruit trees; the young shoots must be taken care of. SHAMROCK.

GROWING PANSIES.

[*In Reply to "Unsuccessful Exhibitor."*]

WE have grown the Viola with perfect success in the open; but if we had to choose between the two alternative sites you name we should prefer that where the sun reaches the plants from twelve o'clock till sunset. Heavy or close shade would but elongate the growth, and with this you will never grow these plants to perfection. The ground should be well prepared for the plants, that is, dug at least 2 feet deep, working in decayed manure rather deeply and a sprinkling of bone-meal about 9 inches deep. There is no month in the year like October for planting where an early display is desired, while for late summer effects spring planting will suffice. Cuttings well rooted and not straggling divisions of old plants should alone be planted. Such as these having had the point removed would be giving evidence of basal growth in October, and would continue to grow and make fine tufts. Formerly when planting beds of these, with the ground well prepared deep and wide, *i.e.*, 6 inches wide, drills were drawn, the young plants being placed in the centre. The central growth was kept in check, and this tended to promote an abundance of lateral growth, which was so earthed up that only the points of the shoots were visible from time to time. This earthing up was continued — a specially good soil mixture being used and made moderately firm about the plants—till the ground was levelled up. We attribute a good deal of our success to the benefits accruing from this special treatment, and the whole mass of new growth being enabled to root therein afforded the plants an exceptional opportunity for rooting. On a very light soil this was the only treatment we found of any service and proof against great summer heat, while in more holding soils it promoted a vigour of growth and freedom of flowering rarely seen.

4.—SPHAGNUM MOSS BOUND FIRMLY ROUND THE WOUND. IF KEPT MOIST ROOTS WILL SOON PERMEATE THIS MOSS.

THE TOWN GARDEN.

GARDEN EDGINGS.—There is nothing prettier in the villa, cottage or wayside garden than informal evergreen edgings to garden walks and beds, and which, provided the right things are employed, afford beautiful and interesting flowers for a considerable period of the year. It is the living evergreen edgings that appeal to one so strongly, and such as these appear to constitute a sympathetic link between the plants of the beds and the worker. The more formal edgings of tiles or bricks possess none of the above good attributes, and, besides being decidedly more costly to start with, are apt to be displaced by the subsequent digging of the soil unless fixed in concrete or exceptional care be taken in doing the work. Unbeautiful and unremunerative at all times and in all places, such things are seen to the worst advantage when used around the beds on the lawn, a position where no edging other than the grass is needed. I therefore suggest that edgings of Pinks, Thrift, Aubrietia, Arabis or one of the many Mossy Saxifragas displace those of brick or tile in every possible instance, so that interest and beauty may be everywhere imparted to the garden, even in such small matters as these. Indeed, it is in this latter direction that the good taste of the amateur gardener will be revealed, for no flower border could possibly be in good taste which has an outer edging of tile or brick.

STONE EDGINGS.—Next to the edging of living plants, the stone edging used in conjunction with evergreen subjects makes a very pretty and suitable variant, and where the stones are informally laid and interspersed with the Mossy or Creeping Phloxes, such as P. frondosa, P. setacea in variety and others, the effect at flowering-time is decidedly good. Of somewhat bolder character is Saxifraga (Megasea) cordifolia, and, bolder still, its variety purpurea, a plant whose leaf beauty leaves nothing to be desired. Either of the last-named may be used alone or in the boldest arrangements in conjunction with stone. The plants are the more valuable, too, because perfectly hardy, while they are prone to succeed in light or heavy soils. Box edgings I do not greatly favour, preferring rather to use plants of dual value and those in particular which add to the beauty of the spot rather than detract therefrom by their indifferent behaviour or success.

USEFUL HERBS.—Black and Lemon Thyme and the common Sage are among the most serviceable of herbs, and a small plot should be devoted to these in every garden. It is now a good time to plant, giving a place to the Sage, if need be, apart from the rest.

VIOLETS IN POTS AND FRAMES.—The Sweet Violet deserves to be more extensively grown in pots, so that the plants may be given a shelf in the greenhouse, where they would flower in advance of frame-grown plants. Just now the first-named are pushing flowers more freely in a temperature of about 40°, and weak soot-water or liquid manure should be given at each watering. Those bedded out in a frame should be freely ventilated to dispel damp, and all decaying foliage removed. When this is done a sprinkling of soot may be given about the plants; it will discourage the slug and also act as a useful and safe fertiliser.

OTHER PLANTS IN FRAMES.—Calceolarias in the frame should be freely ventilated now to keep the plants sturdy, while those of the herbaceous section will be best if stood upon pots to permit of a free current of air below. These latter are more frequently spoiled by heat than by frost, and heat is too often misapplied. A brick pit or substantial wooden frame covered with mats in severe weather will not only keep these plants in health, but encourage a vigour unknown where much artificial heat has been given. Thus circumstanced, not only will a greater vigour be noticeable, but a condition of health and freedom from insect pests will be apparent rarely attained elsewhere. Fumigation in the pit or frame is also a simple matter.

TUBEROUS BEGONIAS.—If the tubers of these invaluable bedding plants have not been recently examined, an inspection should be made at once to ascertain their condition, removing any that show signs of decay. Well-ventilated boxes charged with sand or dry soil are excellent to store them in, keeping them free from the hot-water pipes meanwhile. E. H. JENKINS.

THE KITCHEN GARDEN

TOMATOES IN THE GREENHOUSE.

A GREAT many amateurs like to grow Tomatoes in their greenhouses. In the majority of cases it is quite out of the question to attempt to grow the plants in borders because there is no convenience, so pots must be used and placed on the stage. The sunniest position is the most suitable for the plants, from their seedling to their ripening stage.

I know that some amateurs are afraid to grow Tomatoes in the greenhouse because they think the other occupants will be injured by them. If care be taken to avoid the undue shading of other kinds of plants by the foliage of the Tomatoes, there will be no other danger.

SOWING THE SEEDS.

Now if an average day temperature of 45° can be maintained during January and February, seeds may be sown. It is not absolutely necessary to have a very high temperature to ensure germination; I have abundantly proved this. I have found seedlings growing on the border from an old smashed fruit in a cold house in March.

Sow the seeds thinly in large pots filled to within 2 inches of the top with good friable loam, a little leaf-soil and a small quantity of sand. Put a sheet of glass on the pot, and a nice snug little frame is made for the coming seedlings. The seeds will take about sixteen days to germinate in such cool conditions, but the seedlings will be very sturdy specimens. Transplant the seedlings in boxes 3 inches apart, and in due course place them in 10-inch pots.

TRAINING AND FEEDING

are henceforth matters of much importance. As the plants become established in the large pots—which should be three parts filled with fibrous loam and a little old mortar rubble—they produce side shoots freely, and the latter must be regularly removed while quite small. If allowed to remain until they attain a fairly large size they not only rob the plant and its fruits of much strength, but also exclude light, and light and sunshine must reach every leaf, stem and fruit, if possible. The leading or main stem must be fastened to the wires or stakes and not allowed to get entangled together.

FERTILISE THE FLOWERS

every day about noon. This makes a great difference between a poor and a full crop. Even a gentle tap with a smooth stick will cause the dislodgment of the pollen; but I prefer to shake some pollen on to my thumb-nail and then quickly touch the stigmas of other flowers with it. I have tried this way of artificial setting, also non-setting, and I could see the difference in the crop all along the row of plants.

FEEDING

must commence when two or three trusses of fruits are set and are swelling. First give two soakings of clear, weak soot-water, and then three waterings with weak liquid manure, alternating with doses of clear water. Afterwards put on a mulch of fibrous loam and rotted manure. Then feed with superphosphate, scattering a teaspoonful on the mulch in each pot and water it in. When roots appear on the surface, again mix the superphosphate with water and give applications once each week. B.

A DAY WITH MR. ROBERT SYDENHAM.

THE name of Mr. Robert Sydenham of Tenby Street, Birmingham, will be a familiar one to our readers in connexion chiefly with Sweet Peas and bulbs of various kinds.

It was in the year 1884 that Mr. Sydenham first disposed of a few surplus bulbs among his friends, little thinking at that time that he was laying the foundation of a business which is to-day one of the foremost in the country, and which last season dealt with nearly 39,000 bulb and seed orders. Reference has been made above to bulbs and Sweet Peas, but the latter are not the only seeds that are dealt with, all kinds of flower and vegetable seeds being supplied by the firm.

In 1908 Mr. Sydenham conceived the idea of converting the business into a private limited company with the praiseworthy object of giving a direct interest in the business to those members of the staff who had worked hard for him during the past years, and not for the purpose of raising additional capital. Mr. Robert Sydenham, who is a keen business man to his finger-ends, still retains full control as governing director of the new company and gives the business the same personal attention as hitherto.

For the purpose of giving our readers an idea as to how this remarkable business is conducted, we recently visited Mr. Sydenham at Tenby Street, just as the seed order season had commenced.

Mention has been made of Mr. Sydenham's keen interest in Sweet Peas, and his little book, "All About Sweet Peas," may be regarded as a reliable encyclopædia of the flower. During the summer months Mr. Sydenham travels to all parts of the kingdom where Sweet Peas are grown, and no gathering of Sweet Pea enthusiasts will be found minus "Uncle Robert," as he is affectionately termed by Sweet Pea lovers. Some idea of the extent of the firm's business in Sweet Pea seeds will be gathered from the fact that between two and three tons of seeds are disposed of annually. One pound of seeds will make from 100 to 150 packets, according to their size, and a rough calculation will give the approximate number of packets which are despatched to all parts of the globe.

A feature of the Sweet Pea seeds supplied by this firm is that they are all hand-picked, a tedious operation that was being carried out at the time of our visit. Then, again, the number of seeds in a packet is stated. We had always wondered how a firm with such an enormous output could stop to count the seeds in each packet; but this trouble is got over by a very clever contrivance with which a smart girl can put up 600 packets an hour. This consists of a hand-scoop with a flat false bottom in which fifty-two holes are made. This is thrust into a heap of hand-picked Sweet Peas, given a quick and dexterous shake, and one seed is retained in each hole. The pressing of a little lever with the thumb raises this false bottom and shoots the seeds down the hollow handle of the scoop, the open end of which is thrust into the packet. The whole operation is done very rapidly indeed and with machine-like regularity. The size of the scoop can be altered so that twenty-six or ten seeds can be put in a packet.

The collections of Sweet Pea seeds offered by the firm must be very popular indeed, as last year over 20,000 of these were sold, and, of course, many orders of numbers of packets selected by the purchasers who do not like collections (and we are told quite 500,000 packets are wanted each season) were also dealt with.

Other flower and vegetable seeds were being despatched in large quantities, and we had the opportunity of opening and inspecting any packets that we cared to select; these we found of first-class quality in every case. Doubtless

many of our readers have seen the excellent vegetables grown from the firm's seeds which are shown at the leading exhibitions throughout the country.

Of course, at the time of our visit the spring-flowering bulb business was completed for the year, yet we had an opportunity of seeing the arrangements which have been made for keeping the bulbs in first-class condition. Gladioli and tuberous Begonias were being despatched in large quantities, and the quality of the stocks that we saw was very high indeed.

That the firm's bulbs and seeds give general satisfaction is manifested by the enormous and rapid growth of the business. The catalogues issued by the firm are concise and lucid, the best only of the various kinds being listed. We had every opportunity for inspecting the firm's books, and any figures quoted were taken from them. By close personal attention to every detail Mr. Robert Sydenham has built up a bulb and seed business of which any man might be proud, and we left Tenby Street with the conviction that everything possible is done to supply the best bulbs and seeds only at the lowest prices consistent with good quality.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Violets not doing well (*Scotia*).—The brown-margined leafage of your Neapolitan Violets is perhaps one of the best evidences of root inactivity, much of which is brought into being by the method so much in vogue of lifting and replanting the clumps at the period you have named. For such work October is late, and so much worse as the month is advanced. Early September is a far better time and more reasonable altogether, inasmuch as root action may at that time be revived, to the benefit of the plants and their subsequent flowering. As a matter of fact, your plants since October last have been existing upon their own resources, without being able to draw any nourishment from the soil whatsoever. This state of things must continue till root activity returns, when the amount of sunlight, now daily increasing, will assist the plants to renewed growth. A far better plan to adopt is either to grow your Violets in pots or plant them in a raised bed the size of your frame, so that the latter could be placed over the plants at the right time. In either case a greater amount of attention would be required in the matter of watering, or failure would ensue. By encompassing a bed of good soil by stout planks or by bricks set in mortar a semi-permanent bed would be formed at small cost. We realise that you were precluded from doing any of these things last season, but you may do so this year. The best time to plant such a bed would be early in April, and the best type of plant to put out is the non-flowered, freshly rooted layer with single crown, setting the plants a foot asunder each way, or for the variety named a little less. You are in error in supposing that winter sun would harm the plants, and even summer sun does not do this if the plants are in deep and good soil. In this connexion we had a mild surprise only some three weeks since, when a friend living near Natal, where the thermometer had, at the time of his writing, been ranging between 90° and 100° in the shade, wrote: "My bed of Violets is a mass of bloom, and only surpassed by the Roses, whose blossoms appear in their thousands." As a matter of fact, we should have thought the great heat too much for the Violets in any circumstances, but obviously this is not so.

Perennials for north border (*Perplexed, Nailsea, Som.*).—You have omitted to state the width of the border, which is of considerable importance, so that a proper selection of plants may be given. We are concluding, however, by the height of the wall that the border is a wide one and suitable for plants of more than average height. We think the following plants will be of service: Any of the perennial Sunflowers, Kniphofias, Spiræas, Michaelmas Daisies in variety, Achillea, Eupatorium, such Lilies as testaceum, pardalinum, canadense, Hansonii, chalcedonicum, umbellatum and others, Phloxes, Pæonies, both tree and herbaceous kinds if you will, Christmas and Lenten Roses, Aster Amellus, A. acris, A. lævigatus, Trollius of sorts, Day Lilies, any of the rhizomatous Irises, Galegas, Lupinus, such strong-growing Primulas as japonica, pulverulenta, rosea and Sieboldii, Sedum spectabile and the like. If you require flowering climbers, select Lupinus arboreus, Jasminum nudiflorum, Pyrus japonica, Tropæolum speciosum (given fish-netting to climb upon), Corchorus japonicus fl.-pl., Azara microphylla, with Clematises, Ivies and Ampelopsis.

TREES AND SHRUBS.

A new Blackthorn (*Mrs. S. Marshall*).—The large-flowered Blackthorn which you have found is unlikely to be successfully increased by cuttings. If you have any Plum stocks or stocks of the common Blackthorn established, you may graft it on to them in March, using grafts of two year old wood in preference to that a year old. Budding in summer is not a satisfactory way to adopt, the buds of the Blackthorn being so small that they are difficult to manipulate. A variety of the Blackthorn with double flowers is already in cultivation. It is an exceptionally free-flowering shrub and the flowers are very pretty.

Hollies not fruiting (*Mrs. M. A. Pearson*).—As a rule, male and female flowers of the Holly are borne on different trees, though occasionally flowers of the two kinds are found on the same tree. This means that trees which bear male flowers only, or male flowers with a sprinkling of female blossoms, bear no fruit at all or a few only. The majority of the garden varieties have originated as sports from one or another, male or female, trees; consequently those which have originated from non-fruiting examples never, or very rarely, bear fruit, while those which have developed from female trees do so. It occasionally happens that a variety with similar leaves has originated in different places from both male and female trees; therefore that variety may be found as a fruiting tree in some gardens and a non-fruiting tree in others. The varieties you name are as follows, in sex: Golden Queen, male; laurifolia nova, male; maderensis nigrescens, male; Hodginsii, usually male, but fruiting forms are occasionally observed; platyphylla, female as grown in gardens, but male kinds are known—in fact, the variety called maderensis nigrescens is simply a male form of platyphylla. Good female varieties are argentea marginata, argentea medio-picta, aurea marginata, fructu-luteo, camelliæfolia, Handsworth New Silver and Marnockii.

Pruning various shrubs (*H. E.*).—Cornus sibirica elegantissima may be grown for many years without pruning. If, however, it is getting unruly in growth, you may cut it back in March, taking care to thin the branches out at the same time. Weigelas rosea, Eva Rathke and aurea may have some of the old flowering wood thinned out after flowering. The first and last may be pruned during June, and Eva Rathke later, when the flowering is over. Philadelphus (Mock Orange) grandiflora does not require pruning. Tamarix gallica may be cut well in during February or March. The Golden Elder may be cut hard back to within two or three buds of the base of last year's shoots during March. The Rose of Sharon may be cut down to the ground at the same time either annually or biennially, whichever you like, and any pruning required by the Golden Box may be done during summer—June or July. You may be able to root cuttings of most of the shrubs. Pieces 9 inches to 12 inches long should be cut to a joint and inserted to within 3 inches of the apex in a shady border out of doors. The sooner such cuttings are put in the better; so if you wish to try your hand at propagation your cuttings should be made now instead of waiting until pruning-time. You may cover the ground beneath them with double Arabis, providing you do not place it close to the roots and remove it again after the Arabis has done flowering.

ROSE GARDEN.

Roses planted in cold greenhouse (*Constant Reader*).—You appear to have taken every care to make the plantation a success, and we cannot understand your great failure unless it was owing to the dry state of the loam. As this loam was stacked under cover for twelve months, it must have been very dry when placed in the border, and as you say you trod the soil well before watering, it is just possible the soil did not get wetted very far down. Nothing could be worse than this for the roots. Much better have too much water to newly planted Roses than not enough. It is very probable a sort of dry rot was engendered by the dry state of the loam. Then again, to lift plants from the ground and place them in a cold greenhouse without due attention to watering their roots and spraying the shoots may account for some failures, but pot plants should most certainly have survived. However, as your Maréchal Niel has made such good growth, the border now seems to be in a proper condition. Unless you desire all the roof to be covered with the Maréchal Niel, it would have been best to train its growths perpendicularly or nearly so. In any case it would be well to remove 1 foot to 3 feet from the end of the growths, as that part is usually unripe. If you retain growths horizontally you will find several eyes break out into other growths, and some will bloom and then go on to make a long growth. Reduce the number of long growths so that they are at least 2 feet apart; then you will not shade the other Roses too much. As soon as the long growths have flowered next year, cut back hard; they will then produce other long growths during the summer, which will supply the bloom for the following year. Do not attempt too many climbers on the roof, or you will spoil those dwarf varieties in the border. Such sorts as Mme. Jules Gravereaux, Hugh Dickson, J. B. Clark, Climbing La France and Ulrich Brunner would be best grown as pillar Roses; they would then bloom better and at the same time would not shade the other occupants too much. Train them upon 5-feet to 6-feet stakes and leave the long growths their entire length; any lateral shoots cut back to one or two eyes. If this is their first year you would do well to cut all shoots back to 2 feet, and the dwarf sorts, such as Lady Roberts, to about 12 inches or 15 inches. Your list is a good one, and we cannot well improve upon it unless it were to add Joseph Hill, Pharisaer, William Shean, Lady Ashtown, Mme. Segond Weber and Laurent Carle. If you find any trouble in flowering Cloth of Gold, bud it upon one of the other Roses, say, on J. B. Clark. This double budding induces a free blooming of this fine old Rose.

Various Rose queries (*Wembra-Lea*).—For the ordinary amateur the Briar cutting stock is best for Hybrid Teas and the seedling Briar for Teas and Hybrid Perpetuals. For the latter tribe one may induce a good autumnal bloom by budding on seedling Briar, as the plants continue growing when those on Manetti or Briar cutting are ripening off. (2) The only objection to planting standards Briars around a lawn and budding them where planted is that one deprives one's self of the beauty of the Roses for

one year, besides being uncertain whether all the Briars will survive, which, if they failed, would leave some bad gaps. (3) As you have so carefully prepared your soil, the plants will not need artificial manure for some time, if at all, this season. If you can obtain liquid manure from the stables or make some yourself with cow-manure and soot, this would be all the plants needed the first season. They should be given this during the latter part of May and throughout June about once a week. (4) As you say the buds appear green, they have evidently "taken" all right. Do not cover them up as you have done, for it will tend to excite them into growth too soon. When the bark "gapes," as you describe, it is because you untied the buds too soon. If you untie to examine, you should retie them again, but not quite so tightly. (5) Fish or Ichthemic Guano would be better for you to use rather than the crude fish offal, but we only recommend this for established Roses, *i.e.*, those that have been planted at least twelve months. (6) Instead of cutting quite back the tap roots of those plants on seedling Briar, they should have been shortened to about 6 inches or 8 inches. This induces fibrous roots to appear, and thus keeps the roots nearer the surface. We are always pleased to render assistance to amateurs who encounter difficulties.

THE GREENHOUSE.

How to grow Verbenas well (*Blandford*).—If you are depending entirely on seedling plants, you are making a rather late start by sowing in February and March, the last month more particularly. If you have a warm greenhouse or frame, sow the seeds as early as possible; at once, in fact. Transplant the seedlings as soon as they are large enough, or pot them singly into small pots so that no definite check will follow. The young plants should be frequently stopped before being planted out, to induce them to form bushy specimens. In all probability the soil is a little too heavy, and by lightening the mass by the free addition of burnt ash from the rubbish fires, or this and grit combined, you may achieve better success. You do not tell us whether the plants attain to any size, or whether the flowering is poor. Usually the most reliable plants for flowering are those raised from cuttings. Occasionally, however, in dry and hot summers the seedling Verbena will attain a large size on quite poor or stony soil and flower profusely far into the late summer. We think, however, by making an earlier start and by securing good plants for putting out, you may, with the more porous soil, achieve a far greater success than hitherto.

Diseased Carnation (*Scot*).—The enclosed Carnation was in a sorry plight, the leaves being attacked by what is commonly termed spot, a fungoid disease. Apart from this, their condition is poor, and you cannot expect much success from plants like that sent. Malmaison Carnations need, especially during the winter, a good light structure and a free circulation of air whenever possible without, at the same time, subjecting them to direct draughts. The dull, wet weather experienced will have been all against the success of your Carnations. We advise you to remove any badly infected leaves and burn them, after which dust the plants lightly with black sulphur. This, combined with free ventilation, should, now the days are lengthening, effect an improvement in your plants.

Questions about Chrysanthemums (*Exhibitor*).—We will deal with the questions *seriatim*. A specimen Chrysanthemum plant is one that is very freely flowered, in which, too, the plant and blooms are represented in proper character. Plants of this description must be developed from single stems in the first instance, and at least 1 inch of the stem should be clear above the soil. Only one plant is allowed in each pot, otherwise the exhibit may be disqualified. Briefly stated, large specimen plants may be grown from old ones. These should be shaken out of their present pots, the soil removed with care, and the plants repotted in new soil and in pots not more than 6 inches in diameter. All except the strongest and most promising shoot should be cut out, and this must be grown on in cool conditions henceforth. Subsequent repottings must be given as and when required. Specimen plants may also be grown from cuttings struck quite early in the season, these, when rooted, being pinched, and the pinching repeated at intervals of every successive 6 inches of growth, the last pinching being done at the end of June. The growths of the old plant should be treated in precisely the same fashion. We give the names of some of the more noteworthy varieties that make excellent specimen plants in the different types: Japanese, Kathleen Thompson and its parent, Caprice du Printemps, F. S. Vallis, Merstham Yellow, J. H. Silsbury and Viviand Morel and its sports; incurved, Mrs. Geo. Rundle, Mr. George Glenny and Mrs. Dixon; Pompon, Wm. Kennedy, Rosinante, President and Wm. Westlake; singles, almost any of them; Anemones, Mme. Robt. Owen, Gluck and Mrs. Shimmins.

ORCHIDS.

Names and culture of two Orchids (*Constant Reader*).—1, Cypripedium insigne; 2, Cœlogyne cristata. Cypripedium insigne is one of the easiest grown of all Orchids. It will grow and flower year after year in an ordinary greenhouse, yet at the same time it responds readily to a little more heat. What is known as an intermediate temperature suits it best. In the intermediate house the thermometer should not fall much below 50° at night, rising 10° or a little more during the day—that is throughout the winter months, for as spring advances a corresponding rise in the temperature will be beneficial. Shading throughout the summer will, of course, be necessary; indeed, the treatment will be the same as that needed by greenhouse plants in general. Should the Cypripedium need repotting, it is best done soon after the flowers are over, say, about the end of February. A suitable compost may be formed of equal parts of loam and peat or leaf-mould, with a sprinkling of silver sand and a little live sphagnum. In potting, the pot should be quite clean and well drained with broken crocks to one-third of its depth. The soil must not be mounded up as in the case of many Orchids, but this Cypripedium should be simply potted as any ordinary plant; that is to say, the compost must be pressed down in such a manner that it is about half an inch below the rim of the pot, thus allowing space for water. Cypripedium insigne will need to be regularly supplied with water throughout the year. Of course, more will be required in the summer when the plant is growing freely than in the winter, but at no time must the soil be allowed to become very dry.

Cœlogyne cristata (*Constant Reader*). This beautiful white-flowered Orchid flowers as a rule in January or February. The best time for repotting, when it is needed, is soon after the flowers are over, but if the plants are in good condition annual repotting is not necessary, a top-dressing being then all that is required. Deep pans, rather than pots, are the best receptacles for this Cœlogyne; but if only pots are available, an extra amount of broken crocks must be placed in the bottom. Even if pans are used the drainage must be thorough. A suitable soil is Osmunda fibre or good fibrous peat, with some sphagnum and silver sand, well mixed together. In potting, special care must be taken not to bury the rhizomes or pseudo-bulbs too deeply, and, if necessary, they may be held in position by a peg or two. After potting, care must be taken not to over-water, but when growing freely a liberal amount of water must be given and a moist, growing atmosphere maintained. At that time a structure with a minimum temperature of 60° will be very suitable for the plants. When growth is completed they may be kept somewhat cooler and drier in order to ripen the pseudo-bulbs.

FRUIT GARDEN.

Apple trees diseased (*F. A. L.*).—The disease is canker, and is all but impossible to cure. As a rule, it only affects certain varieties, such as Cox's Orange Pippin, Ribston Pippin, Lord Burghley, Wellington and a few others. It does not spread to other trees, and the trees affected by it will go on bearing moderate crops of useful fruit for many years. No one understands the cause of its origin, but there is no doubt that trees are more liable to its attack when grown in heavy, cold soil.

Gooseberries and Raspberries in pots (*R. Willson*).—The best compost you can have for the growth of these trees in pots is the following: To one barrow-load of good fibrous loam add a bushel of well-decayed farmyard manure and half a gallon of bone-meal.

Swelling in trees (*M. R. H. A.*).—The swelling is due to a fruit having been borne at the tip of the shoot where it is said the bud is dead. The weight of the fruit bent the shoot down and prevented the food from passing properly down the channels in the bark. It therefore accumulated there and produced the swelling. No danger is to be apprehended from the presence of the swellings.

MISCELLANEOUS.

Camellia leaves diseased (*J. M.*).—No fungus to which the blotching can be attributed can be found on the Camellia leaves. There are traces of some insect. Is mealy bug present?

Flies for inspection (*Miss K. D.*).—The flies sent are: 1. A hover fly too mutilated to recognise. These visit flowers, but do no harm, and the larvæ of many feed on green flies. 2. A beetle (Strangalia armata), sometimes, from its wasp-like markings, called the wasp beetle. This, too, visits flowers, but does no damage. Its larva feeds in decaying wood, and may often be found in worm-eaten posts, &c.

Forming a new garden (*Doubtful*). — The common Holly would be a good subject for your hedge, but it has the same defect as the Yew, for it is of slow growth when young. The Laurel, as you say, is a robber of surrounding ground. If, however, you feel disposed to try it in preference to the Holly, on account of quicker growth, it will bear having its roots cut back each year to the outside of the foliage, and that ought to be sufficient to keep your border fairly free from roots for the summer. Each year when doing up your border chop the ground down with a spade to the depth of 12 inches or 15 inches just along the face of the hedge, which will be quite sufficient to sever the roots.

Rolling lawns in winter (*R. W. R.*).—We are greatly obliged to our correspondent for the pretty posy of Snowdrops, Winter Aconite, Iris and Heather, safely received. In a climate so balmy and warm as yours must be to produce these beautiful flowers out of doors on the turn of Christmas, your lawn, although battered down and the grasses tortured the winter through by heavy rolling, ought not to suffer much. However, we believe you would find that, if your lawn was spared this useless infliction through the winter, a denser and softer carpet of grass would be produced for the children the following Christmas to work off the effects of eating too much plum pudding. We hold that the rolling of lawns during winter does more harm than good. Worms then greatly help to manure and aërate the soil by the amount of humus tney bury in it. The middle of February is time enough to begin rolling, just before grass growth commences. It then presses and consolidates the soil to the roots of the grasses (which have been more or less loosened by winter frost), and helps them to form a larger quantity of new roots and also to take a firmer hold of the soil.

Name of plant (*J. E. J. L.*).—Leycesteria formosa

SOCIETIES.

READING GARDENERS' ASSOCIATION.

ANNUAL MEETING.

THE annual general meeting of this popular society was held in the Abbey Hall, Reading (by kind permission of Messrs. Sutton and Sons), on Monday, January 10, when there was a good attendance of members. The president (Mr. Alderman Parfitt) occupied the chair at the opening of the meeting, but, being compelled to leave early, the vice-president (Mr. Leonard Sutton) presided for the remainder of the evening. The minutes of the last annual meeting were read and confirmed. The committee's report for 1909 was read by the hon. secretary and adopted. The balance-sheet was brought forward, and showed the association to be flourishing financially. The hon. secretary was instructed to have the report and balance-sheet printed and circulated among the members. Messrs. W. Pope, F. W. Macdonald, E. J. Dore, J. H. Baker, G. Durbidge, C. H. Cook, G. West and T. Hobbs having been appointed scrutineers, the election of officers for 1910 was proceeded with, the result being as follows: Chairman, Mr. T. Judd; vice-chairman, Mr. F. Townsend; librarian, Mr. E. J. Dore; assistant-librarian, Mr. F. W. Exler; treasurer, Mr. F. W. Macdonald, F.R.H.S.; auditors, Messrs. W. Badcock and A. Smith; committee, Messrs. F. Alexander, A. F. Bailey, G. Carter, H. G. Cox, D. Dore, F. G. Drew, C. Foster, F.R.H.S., H. Goodger, R. A. Hatton, T. Hatton, G. Hinton, F. Johnson, H. C. Loader, T. Neve, W. G. Pigg, T. J. Powell, G. Stanton, F.R.H.S., W. J. Townsend, T. Tunbridge, P.C., F.R.H.S., and H. Wilson; hon. secretary, Mr. L. Castle. The following were chosen to act as judges for certificates, 1910: Messrs. T. Judd, F. Townsend, T. Tunbridge, A. F. Bailey, H. Wilson and F. W. Exler. Subscriptions voted for 1910: Royal Horticultural Society, £2 2s.; Gardeners' Orphan Fund, £3 3s.; Gardeners' Royal Benevolent Institution, £2 2s.; Reading Horticultural Society, £1 1s.; Royal Berkshire Hospital, £1 1s.; University College, Reading, £3. On the proposition of Mr. T. J. Powell, seconded by Mr. T. Tunbridge, it was decided to hold the annual tea and social gathering. Votes of thanks to the retiring chairman (Mr. A. F. Bailey) and vice-chairman (Mr. H. C. Loader) were carried with acclamation, and the meeting terminated with a hearty vote of thanks to the president and vice-president, who had in turn acted as chairman for the evening.

EAST ANGLIAN HORTICULTURAL SOCIETY.

MR. J. POWLEY, who has been president of this society during the past eleven years, during which time great progress has been made, was the recipient at the annual dinner, a few days ago, of a splendid marble timepiece and ornaments, also an enlargement of a photograph to hang in the meeting-room. The members gave their donations willingly and liberally, and Mr. T. B. Field uttered some very appropriate remarks in making the presentation.

THE GARDEN.

No. 1994.—Vol. LXXIV. February 5, 1910

CONTENTS.

Tribute to a Great Horticulturist .. 61
Notes of the Week
Forthcoming events 62
Correspondence
Euphorbia Wulfenii .. 62
Longevity of Fern-spores 63
Sweet Peas in the North.. 63
Gardening of the Week
For the South and South Midlands .. 63
For the North and North Midlands .. 63
Kitchen Garden
Potatoes for small and large gardens 64
Green Peas in pots .. 64
Trees and Shrubs
Thuya gigantea 65
Solanum crispum (Potato Tree) at Leonardslee 65
Choice trees for present planting .. 65
The Winter Sweet (Chimonanthus fragrans) 66
Flower Garden
New single Chrysanthemum Caledonia 66
Flower Garden
Some of the best Sweet Peas for the garden 66
Daffodil Princess Juliana 67
The double-flowered Arrow-head 67
Rose Garden
Rose soil unsatisfactory 67
Gardening for Beginners
Garden work week by week 68
Peaches and Nectarines 68
Brown scale on Peach trees 69
The Town Garden .. 70
Fruit Garden
Fruit notes 70
The amateur's vinery 70
New Orchids 70
Fragrant Roses 71
Fern Garden
The Welsh Polypody 71
Societies 71
Answers to Correspondents
Flower garden .. 72
Trees and shrubs .. 72

ILLUSTRATIONS.

The new Narcissus Princess Juliana 64
A fine specimen of Thuya gigantea at Leonardslee .. 65
Solanum crispum in the gardens at Leonardslee 65
A new single Chrysanthemum: Caledonia 66
The double-flowered Arrow-head 67
Peaches and Nectarines 68, 69

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

TRIBUTE TO A GREAT HORTICULTURIST.

As we announced last week at the moment of going to press, a portrait painted by Mr. Hugh C. Riviere of Mr. Harry J. Veitch, V.M.H., was presented to the council of the Royal Horticultural Society, and also one of her husband to Mrs. Veitch as some token of the great regard in which they are held by the horticultural world. When it became known that such a movement was started, the response was remarkable, and at the dinner, presided over by one of Mr. Veitch's greatest personal friends, Mr. N. N. Sherwood, whose complete restoration to health is a source of the keenest pleasure to all who are acquainted with him, about 150 of the subscribers were present.

It was a memorable and pleasant gathering to do honour to one who has accomplished a great work for horticulture and helped forward the charities by much personal labour and many rich gifts. Mr. Veitch is held in something more than esteem. Horticulturists of all degrees have an affectionate regard for one who has never spared himself in working for the good of others.

The portraits are admirable, and the whole of the proceedings, thanks to the hon. secretary and treasurer of the testimonial fund, were marked by great enthusiasm.

The fifty-ninth volume of The Garden was dedicated to the guest of the evening of Tuesday in last week, and there we mentioned that wherever horticulture has gained the affections of the people the name of Veitch is honoured. Mr. Harry Veitch was born on June 29, 1840, at Exeter, and received his education at the Exeter Grammar School and in Germany. He afterwards attended the course of botanical lectures given by Dr. Lindley at the University College and gained an insight into the working of the seed department of the business, which he was soon to manage, in the establishment of Messrs. Vilmorin at Paris.

Through the death of his father and elder brother, whose health failed in 1867—the former dying in September, 1869, and the latter in August, 1870—Mr. Veitch became head of the firm of James Veitch and Sons, and during this prosperous period of its history he published two works that have obtained a world-wide popularity as important contributions to the subjects of Conifers and Orchids, namely, the "Manual of Coniferæ" and the "Manual of Orchids."

The Royal Horticultural Society has ever received Mr. Veitch's strong and constant support, and it was fitting that the dinner was held in the beautiful hall of that society. It is almost unnecessary to write of Mr. Veitch's perennial interest in the Gardeners' Royal Benevolent Institution. He has filled the office of treasurer since 1886 and for many years the position of chairman of committee. During that period the institution has grown in influence and strength, widening, too, its basis of operation through the Victorian Era and Good Samaritan funds, both inaugurated during recent years. In addition to this, Mr. Veitch was active in forming the Royal Gardeners' Orphan Fund. The chairman referred to Mr. Veitch's many good works when proposing the toast of his health and that of Mrs. Veitch.

Many are the societies of which Mr. Veitch is a member, and in his beautiful home at East Burnham he works unostentatiously to promote the welfare of his fellow-men. Many, too, are the tokens of the esteem in which Mr. and Mrs. Veitch are held by those with whom during a long and happy life they have been brought into contact; and when their silver wedding was celebrated a few years ago, friends at home and abroad acknowledged by beautiful gifts their joy that this great horticulturist and his wife had been spared to celebrate so happy an event. This esteem is intensified by the splendid portraits that were presented on Tuesday week.

With regard to the proceedings, the chairman said it was a regular Veitch evening. The company had assembled for one purpose—to do honour to Mr. and Mrs. Harry Veitch. The following are condensed remarks of the chairman: Mr. Veitch had been in business fifty-three years; one of the first to bring to a successful issue the Horticultural Hall; a subscriber for fifty-two years to the Gardeners' Royal Benevolent Institution, which has always had his warmest support; £500 he presented to the institution as a thank-offering for his silver wedding, and £1,000 to the Victorian Era Fund on the occasion of the Diamond Jubilee of Her late Majesty Queen Victoria; no fewer than 309 horticulturists subscribed to the testimonial fund; and, in his closing remarks, said that they looked upon Mr. Veitch as a "true-hearted Englishman, and they all admired and loved him."

It is unnecessary to say that Mr. Veitch, in replying to the toast of his health, was received with enthusiasm. He spoke in grateful words of Mr. Sherwood's remarks, and mentioned that it was not unusual for a portrait to be presented and for replicas to be painted, but he had never before heard of two portraits being presented under such circumstances. One was to be hung in the Council Chamber, in the company of Sir Joseph Banks, the founder and first president of the society, and their present most excellent president, Sir Trevor Lawrence. Mr. Veitch then recalled

many interesting reminiscences, referring in warm terms of praise to that "glorious old foreman, John Dominy," and Mr. Manning.

Mr. J. Gurney Fowler proposed "The Treasurer and Secretary of the Portrait Fund," and referred at length to the services rendered, not only in bringing this fund to such a successful issue, but to their devotion to horticulture generally.

Mr. May first responded, and expressed a wish that horticulture would be more recognised, and paid a tribute to the artist and to Mr. Wilks, who had entered heart and soul in this tribute to Mr. Veitch.

Then Mr. Wilks replied, and mentioned that when the suggestion was made that a portrait of Mr. Veitch would be welcome with the other portraits they possessed, the idea was taken up with great heartiness. Sir Trevor Lawrence proposed "The Chairman," a toast which was received with great enthusiasm. The evening was a memorable one—an intensely friendly tribute to one who has throughout a busy, honourable life accomplished much by his own work for the good of others.

The musical arrangements were in the hands of Mr. Harry Stubbs of St. Paul's Cathedral.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 8.—Royal Horticultural Society's Annual General Meeting and Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1—6 p.m.

February 9. — East Anglian Horticultural Society's Meeting.

February 22. — Horticultural Club. Annual Meeting at 5 p.m., Dinner at 6 p.m., at the Hotel Windsor, Victoria Street, Westminster.

Our Sweet Pea Number. — Next week we shall publish a special Sweet Pea Number, which will contain articles and illustrations of special interest to those who grow and exhibit Sweet Peas. Mr. T. Stevenson, Mr. A. E. Usher and several other well-known growers have written special articles. A coloured plate of six of the best newer varieties will also be included.

The National Vegetable Society. We have much pleasure in informing readers of THE GARDEN that the schedule of classes and prizes offered for competition at the great National Vegetable Exhibition, to be held in the Royal Horticultural Hall, Westminster, on September 28 next, are now ready, and can be had on application to Mr. E. G. Quick, hon. secretary, Kelmscott, Harrow View, Wealdstone, Harrow. It is only necessary to send a post-card giving full name and address, and a copy will be at once sent. The schedule is a remarkable one, as it includes several classes quite diverse from any ever before provided. It also appeals to all forms of vegetable growers, market men, gardeners, amateurs, cottagers, and even to small holders of land. Many of the prizes offered are quite generous, and all should help to bring together the finest display of British-grown vegetables ever seen. No lover of vegetables or grower should be out of this great competition.

Liverpool Horticultural Association.—The annual general meeting of this association was held on the 29th ult. at Hackins Hey, Mr. Thomas Foster presiding over a fair attendance. The report submitted by the committee proved most satisfactory. Last year the introduction of a Rose and Sweet Pea show proved highly encouraging, so that the committee have arranged to include one in this year's programme. The Chrysanthemum exhibition proved worthy of this historical centre for cut blooms, although the lateness of the season was against the trained plants. Sir W. H. Tate, Bart., has placed at the disposal of the committee a handsome silver cup as a trophy for cut blooms, to replace the one that he won outright in 1907-8. The Corn Exchange proved in size, light and position so satisfactory that the committee have decided to hold their three shows, viz., spring, Rose and Sweet Pea, and Chrysanthemum, in the same building again this year. The statement of accounts was the best recorded for some years, leaving a margin of £50 on the year's working, making a total balance in favour of the society of £220 8s. 6d. The subscriptions for the year amounted to £270 and the admission to shows £110. Mr. T. Foster, who for many years has held the position of chairman of committee, was cordially thanked for his valuable and untiring services, and general regret was expressed at the loss that the society will sustain by his retirement. Mr. H. Sadler was re-elected as secretary and Mr. George Blackmore as sub-treasurer. The date of the spring show is fixed for April 6 and 7.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet Pea Evelyn Hemus.—With me last season this Sweet Pea was in every respect a success and was much admired—so much so that I shall certainly grow it again this year. In growth the vine was sturdy, not at all rank, with an abundance of bloom, true in form and colour. No stable manure was used, but superphosphates with deep working. It is a fascinating variety, and lovers of these flowers should not be deterred from including it in their collections because of failures here and there, due probably to errors in treatment.—W. BURBRIDGE, *Purley, Surrey.*

Prize Grapes grown in ordinary garden soil.—I can fully bear out all that Mr. W. D. Pope says respecting his Grapes on page 43 of THE GARDEN for January 22. His Muscats were magnificent, despite a little lack of colour. Mr. Pope's Vines are growing in a partly made border, he states; mine are growing in ordinary garden soil solely, and they have not been fed so far except with a few ounces of artificial manure. I had a very interesting chat with Mr. Pope on the second day of the show, and judging from what he told me regarding his experience as a Grape-grower, which is very limited, I predict a great future for him, and I hope he will still go on and do great things, as he deserves to. I am always pleased to give encouragement to a fellow-gardener. Mr. Pope is a modest man. He did not tell THE GARDEN readers that he also took first prize in the class for two bunches of white Grapes at the Southampton Show last autumn. This he did in good company. Some years ago I knew a baker who exhibited splendid Black Hamburgh bunches from Vines planted in the open border, only in his case the soil was first-class. Amateurs generally should take note of this.—GEORGE GARNER.

Euphorbia Wulfenii.—I notice Miss Jekyll's request for any experience of Euphorbia Wulfenii. I first saw it as I have never seen it since, in 1900, in full flower in the Botanic Gardens at Bath. It was placed to the greatest advantage, high on a rocky bank, and was a glorious sight. The curator kindly gave a cutting to my sister, who, in time, passed some on to me in Lincolnshire. Till last winter the plants lived, grew immensely and flowered sparingly; but last winter all in my walled and protected garden succumbed. Those grown on a limestone bank in my wild garden lived, but did not flower. This winter they look very well and promising. The lovely blue-green foliage is always to be admired, and this Euphorbia is worth growing for that alone. When it does flower the enormous heads of greenish yellow flowers contrast well with this foliage. I may add that I have a fine young plant in my wild garden which seeded itself three years ago.—(Mrs.) PORTMAN DALTON, *Fillingham Castle, Lincoln.*

—— I am much interested in Miss Jekyll's note. Her experience with E. Wulfenii is nearly the same as mine. None of my plants (I have four) has ever flowered, although I have had them several years. I have never seen the flower in other gardens, but have been almost resigned to get on without one, as the foliage is so handsome. From Miss Jekyll's note it appears that all her flowers came from young plants, and I think of cutting down one of mine, hoping that the young growth may send up some flowering stems. It is a very easy plant to strike. A cutting planted outside seems never to fail. I think that E. millifera is an even handsomer plant than E. Wulfenii. The foliage is of a much lighter green, and there is a conspicuous white line in the centre of the leaf. A good-sized plant is most attractive. E. millifera also has never flowered in my garden. I see that there are two other evergreen species—E. Characias and E. Sibthorpii. Are they as good as E. millifera and E. Wulfenii? E. Myrsinites, much dwarfer than either of the above, flowers well here, and is a good rockery plant of small size.—(Rev.) W. W. FLEMYNG, *Coolfin, Portlaw, County Waterford.*

—— In answer to your correspondent's enquiry with regard to Euphorbia Wulfenii, perhaps an account of my experience with this plant since taking charge of the park and botanic garden at Bath a little over four years ago may be of interest. In the spring and early summer of 1907 this plant was a remarkably fine sight with sixty or more of its immense greenish yellow flower-heads, making it quite one of the handsomest plants in the garden at that time. A large number of the growths, however, afterwards became very "leggy" and unsightly, and in the autumn I cut these hard back to within a few eyes of the base. The following year, owing to this drastic treatment, there were very few flowers, but plenty of strong young growths came away from the base of the plant. Last year it flowered fairly well; but now I am glad to find there are about sixty strong growths all showing flower, and it will, no doubt, be again a conspicuous object throughout the early summer months. I am inclined to think that a systematic thinning out of the older flower-shoots after flowering would be beneficial to this plant, as by so doing a succession of strong young growths would be ensured from the base, and these would reach the flowering stage about the third season. I have adopted this system with the smaller-growing E. Characias and find it very successful, and intend subjecting the much more handsome E. Wulfenii to this treatment. I may say my plant is growing in poor soil among stones, and sows itself quite freely. I quite agree that this is a plant for the more prominent parts of the large rock garden, and where it is desired to emphasise a bold, projecting portion, I know of no better plant than this.—J. D. HALLIBURTON (Superintendent), *Victoria Park, Bath.*

—— In THE GARDEN for January 22 I saw a letter from Miss Jekyll asking for the experience of those who grow Euphorbia Wulfenii. I procured a plant in 1902 under the name of Euphorbia sikkimensis; but the late Mr. George Nicholson, when walking round the garden shortly afterwards, pointed out that it was Euphorbia Wulfenii. It is a Dalmatian plant, according to the "Index Kewensis." The plant was placed in a warm position, but has never flowered. A few cuttings were struck, which proceeded to flower and then refused to grow further, and the seed produced was worthless. The original plant continues to increase and yearly sends up a number of small branches from the base, and when the older ones become too leggy they are cut off and the younger

ones take their place. The plant is well worth growing for the lovely winter colouring of the terminal leaves—glaucous green with purple tips.—B. E. C. CHAMBERS, *Grayswood Hill, Haslemere.*

Longevity of Fern-spores.—A parallel case to that mentioned on page 38 happened many years ago with me, namely, in the year 1874. At that time I came into possession of some herbarium specimens of Ferns gathered in 1852, being therefore twenty-two years old. A portion of a frond of Dicksonia antarctica was laden with spores, which were collected and sown. They came up very soon and produced a large number of healthy plants. That such tiny portions of vegetation as the spores of a Fern should retain vitality after all those years interested me much, and I resolved to carry out further experiments, but the opportunity to do so was lost and has never occurred again.

Humea elegans.—Your correspondent "Avon" (page 42) refers to this exceedingly graceful plant as being less grown now than it was a generation ago. Perhaps this is, to a certain extent, owing to the unpleasant manner in which it affects some of those who handle it. From my boyhood days I used to dread the potting and tying of Humea elegans, as the handling of the leaves always brought on severe irritation of the eyes, accompanied by a good deal of inflammation, which took two or three days to subside. Of late, however, it has not fallen to my lot to handle it in any way, but the scent of the leaves even now recalls unpleasant memories. Strange to say, Primula obconica never affects me in any way, while the juice of Rhus Toxicodendron is quite harmless to my skin, yet some of my friends are terribly worried by both of these and do not suffer any unpleasantness from handling the Humea.—H. P.

Sweet Peas in the North.—The announcement that it is proposed to establish in Scotland, with its head-quarters in Edinburgh, a Sweet Pea society, although it may seem to entrench somewhat on the scope of the National society, evidently has no such aim, but rather proposes to be an organisation more suited to the needs of Northern growers than the National is. But the suggested formation does seem to give emphasis to the suggestion I threw out at the recent meeting of the National Sweet Pea Society—that a trial ground was needed for the Northern and Midland districts as well as for the South. Surrey, in which the trials of the National Sweet Pea Society will be held this year, is a rather hot, dry county as a rule, and generally presents, both in soil and climate, material differences from what are found in Lancashire, Yorkshire or more northwards. When the Scottish society is established, could not the two bodies of North and South agree jointly to promote Sweet Pea trials on exactly the same lines as those which Mr. Foster has hitherto so admirably conducted in the South? What Miss Hemus tells us about the conduct of Sweet Pea Evelyn Hemus at Worcester as compared with "Spencer's" Southern verdict on it shows how much soil and climate may affect varieties. For that reason a trial on exactly the same lines northwards, and under the same high-class care as has in the past been found at Reading, and will be continued in Surrey, should render joint trials in such widely diverse districts of great interest and value. There also may be tested the relative germinative or growth merits of seed saved both in the South and in the North. I have not yet seen any tests of that nature, but some may have been conducted. In any case, it would be very interesting to learn the diversities seen, if any, in Southern-grown seed and of Midland or Northern. Probably ripening or maturing is very difficult the further North we go; but that is for Northern growers to say. Everyone must wish in the interests of the Sweet Pea, whether any Northern trial ground be established or not, that the Scottish society may meet with all success.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

BOUVARDIAS may now be pruned and placed in a warm house to start them into growth. As soon as the shoots appear repot the plants and keep in a temperature of 60° to 65°, well syringing them on bright days. To obtain bushy specimens, stop all shoots when they have made two or three joints. If cuttings are required, take them off when about 1½ inches long with a heel of the old wood attached. Insert them in pots filled with light soil and place the pots in the propagating-case.

Caladiums may be shaken out of the old soil and placed in boxes to start. When growth commences pot them up, using a mixture of good fibrous loam, sand and leaf-soil. The general potting of the plants in the stove-house should be proceeded with at once. In repotting use as small a pot as is possible for a shift. Many plants may have the soil shaken off a little and potted back into the same size.

Allamandas that have been resting may now be pruned and repotted, affording them a good watering afterwards.

KITCHEN GARDEN.

Rhubarb.—New plantations may now be made providing the weather is favourable. The ground should be deeply trenched and heavily manured, planting the crowns 3 feet apart.

Onions.—The ground should be prepared at any time now, so there may be no time lost when an opportunity comes along to get the seed in. Autumn-sown Onions may be planted in rows 1 foot apart, taking care that they are made firm.

Shallots and Garlic.—These must be planted without delay providing the soil is in a fair working condition. Plant in rows 1 foot apart and 6 inches from bulb to bulb.

FLOWER GARDEN.

Autumn-planted Carnations will greatly benefit if the hoe is lightly run through the beds during dry weather. Any plants that have been loosened by frost should be made firm again. Those that were potted and are being wintered in cold frames require plenty of air, the lights being taken off during the day-time in dry weather. Give them an occasional look over and pick off all diseased leaves.

Ranunculuses and Anemones that have not been planted must be got in at once. Keep all beds and borders tidy; well roll all grass and paths. This is an excellent time for dressing the lawns with a little artificial manure. Canary Guano is a first-rate manure for grass.

The Rock Garden will demand attention now. Heavy rains having washed the soil away from plants growing in slanting crevices, top-dressing will be necessary. Mix up a little gritty soil with old mortar rubble and work it round the plants. A few stones put in with it is very beneficial, conserving the moisture during dry weather and keeping the collars of the plants dry during wet. Saxifraga burseriana is throwing up its red flower-stems, and the buds will soon open. S. Boydii and S. sancta are in flower, also Narcissus cyclamineus. A close watch must be kept for slugs, also birds, which are very troublesome, picking out the buds as soon as they appear. A little Slugicide dusted round the plants will prevent damage by slugs, and a few pieces of black thread stretched across will stop the birds. The Androsaces are injured by a lot of wet, and a very good plan is to cover them with a sheet of glass, just to keep the rosettes drier. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

ROCK GARDEN.

PLANTING.—Generally those who take an interest in their rock garden desire to add some new or duplicate some old favourite plants each season, and the present is a good time to make these additions providing the plants have been wintered outside. Young stock that was raised from cuttings inserted in frames during the autumn had better be held over for at least a month yet, and well hardened off before setting out into their permanent quarters. Besides the planting, there is abundance of work in this department. Many of the stronger growers are apt to encroach on their less robust neighbours, and now is a good time to remedy this undesirable state of affairs. The shrubby plants will require only a trimming of the shoots. The best way to do this is to cut close back all offending shoots, and not trim with shears as some growers do. Plants like Campanulas, which increase by underground stems, often wander far, and require rigorous treatment to keep them from overrunning their brethren. Thymes, Dianthuses, Aubrietias, &c., should be pulled with the hands, taking care that they are not loosened at the roots.

HERBACEOUS BORDERS.

Rearranging.—If the soil is in a dry enough condition for free working, no better time can be found for lifting and replanting the bulk of herbaceous plants. Where at all possible, an entirely new border should be chosen, as the plants will not only thrive better, but the work can be performed in a much shorter time and with a great deal less trouble. It is not always possible, however, to follow this advice, and where the same ground must be again used, thorough working is essential. The first thing to do is to lift every plant, and, to save a large amount of heeling in, these can be packed closely together at the north side of a wall and covered with mats. The ground should then be well manured and double dug, breaking it up well and removing all roots.

FRUITS UNDER GLASS.

Vines.—Disbudding and tying down will now demand constant attention in the earliest houses, and a slight rise of temperature is beneficial. Later houses are now started in a quiet way, and the very latest cleaned ready for starting at the usual time.

Peaches.—Partial disbudding at intervals of a few days is a better method than leaving this work to be performed all at once. The latter plan is certain to give the trees a serious check, and dropping of fruit later is more than likely to occur. See that the borders receive the proper amount of moisture. Late houses will be starting away without any artificial aid, and if there is no set time for having the fruit ripe, the less heat employed the better. Frost must now, of course, be kept out, or much harm will be done.

PLANTS UNDER GLASS.

Pelargoniums.—Young plants rooted in the autumn should now be potted off singly. Old plants that were cut back after flowering and which require repotting should be attended to before the busier time comes round. I find that first-rate results may be had by merely top-dressing these plants at this season. Remove an inch of the surface-soil and replace with a like quantity of rich, fresh compost; also give a teaspoonful of some good fertiliser like Thomson's to a plant in a 6-inch pot.

Schizanthus.—Plants raised last autumn and wintered in small pots, if not already shifted, should now be placed in their flowering pots. Too rich compost must not be used, or the plants will be soft and long-jointed. It does not appear to be generally known that this beautiful annual will stand any amount of pinching to make a nice bushy plant. C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE KITCHEN GARDEN.

POTATOES FOR SMALL AND LARGE GARDENS.

SEVERAL weeks ago I recorded the success obtained last year with new and old culinary Peas, and as my notes created a certain amount of interest, I am tempted to give a few particulars concerning some of the newer as well as a few standard varieties of Potatoes which were grown in an Essex garden last year. Where the sets, or tubers, are to be placed in single layers in a light but cool position to sprout, a system that I have proved gives the best results and fully pays for doing, no time should be lost in procuring the tubers and placing them in position.

That a change of soil is highly beneficial is now fully recognised by most gardeners, and if the sets can be grown in the North and brought to the South the benefits accruing from the change are considerably enhanced. Most seedsmen now make a speciality of Scotch-grown tubers, and if these are stipulated, they can generally be supplied. It may, perhaps, be necessary to warn the amateur that when planting care must be taken not to break off the shoots, which at that time should be, providing the tubers have been properly treated, from 1 inch to 1½ inches long, sturdy, and dark green in colour. Where it is intended to grow for exhibition, it is a good plan to remove all but the strongest shoot from each set, as the plant will then usually give a few tubers of large size and good quality. For ordinary purposes, however, I prefer to retain the three strongest shoots, removing any others that may be present. Such sets will give heavy crops of medium-sized tubers, which are more generally useful than extra large ones. Whole sets, the size of small hens' eggs, are preferable to cut ones, although the latter will give good crops under most conditions.

The system of planting sprouting sets which I have found most suitable, and the least likely to injure the sprouts, is to take out a hole for each set with a spade, 6 inches being a good depth. Then, when the Potato is placed in position, the soil taken from the holes in the next row is used to fill in those of the first row, this being repeated until the work is completed. With sprouted sets the end of March or early in April is quite soon enough to plant early varieties for all ordinary purposes.

Early Varieties.—Midlothian Early is one of Messrs. Dobbie's introductions, from whom the seed was obtained last year. This is remarkably quick in producing its crop. Planted last year the third week in April, there were new tubers nearly as large as hens' eggs by the end of June. It is a short-topped, yellow-fleshed kidney of handsome appearance and first-class quality, and undoubtedly one of the best early varieties for home or exhibition. Specially suitable for a small garden. Free from disease. Sutton's May Queen.—A splendid white-fleshed kidney of dwarf habit, and for this reason a good variety for small gardens. It is a wonderful cropper, and the tubers, even in a young state, are very floury. Free from disease. Sir John Llewelyn.—A well-known white kidney variety of medium height and excellent quality. Seed obtained from a friend in Surrey. Crop medium and free from disease. Snowdrop (Surrey seed) was almost a failure, the crop being small and badly diseased.

Second Earlies.—Webb's Guardian.—This is one of Messrs. E. Webb and Sons' introductions, and seed was obtained direct from them. A first-class white-fleshed kidney that cropped splendidly, two and a-half bushels being obtained from 7lb. (roughly, half a peck) of seed. It is a dwarf but robust-growing variety, and the quality even now (the end of January) is excellent. An ideal Potato for a small or large garden and suitable for both exhibition and home use. No disease. British Queen.—A well-known white kidney variety that did well with me last year, the seed being obtained from a private source in Surrey.

THE NEW NARCISSUS PRINCESS JULIANA. (*See page 67.*)
(*Much reduced.*)

The quality is good and the height of the haulm medium. Good for large and small gardens. No disease.

Maincrop Varieties.—The Provost, introduced by Messrs. Dobbie and Co. in 1907, is a white, round variety of extraordinary vigour and cropping qualities. Needs plenty of room to do itself justice. With me last year many of the stems were 6 feet long and thicker than one's thumb, but doubtless this was due to the wet summer. From 7lb. of seed nearly three bushels of Potatoes were obtained, and doubtless the crop would have been heavier still had not the plants been rather crowded. Such vigour was not expected and, consequently, not allowed for at planting time. Flavour and keeping qualities good. Very slight disease on one or two plants just before lifting. Webb's Chieftain.—A white kidney variety of handsome appearance and good cropping qualities. It has a most distinct habit, the rather dwarf haulm branching very freely about 6 inches from the ground. Seed was obtained direct from Messrs. Webb. Slightly diseased just before lifting, but crop is keeping well. A valuable maincrop variety for small and large gardens. Duchess of Cornwall.—A variety I believe that was originally derived from Ireland. A handsome, pebble-shaped, white variety of medium height. Surrey seed. The tubers are beautifully netted and the crop was heavy. No disease. Good for small and large gardens and an excellent variety for exhibition or home use. King Edward VII.—A well-known kidney variety with white skin, blotched with red. Haulm of medium height. Local seed was used and gave a moderately good crop. Flavour good. No disease. The Factor.—A well-known pebble-shaped white variety introduced, I believe, by Messrs. Dobbie and Co. It is a tall-growing but heavy-cropping variety that should be given plenty of room. I have grown this for several years, and it is one of the best-keeping varieties I know of. Foliage resembles that of Up-to-Date; very little disease last year.

The foregoing list could, of course, be very much extended, and doubtless growers in other parts of the country will give readers the benefit of their experiences last year, a year that was not one of the best for Potato culture. H.

GREEN PEAS IN POTS.

THE thoughts of many gardeners and owners of gardens will soon be directed towards the production of early crops of vegetables. By good management and a little forethought it is wonderful how many useful and valuable crops it is possible to grow where a little glass accommodation is available in spring. Among the most appreciated are undoubtedly green Peas. By sowing now in pots and growing on in cold frames or pits, or on available shelves in vineries, Peach-houses or cold greenhouses, a good supply may be obtained throughout the month of April and early in May, especially if successional sowings are made about every ten days. The young plants, of course, must be protected in very cold weather by having mats placed over the frames, or a little heat applied where available.

A good-sized pot to grow them in is one of 8 inches in diameter, or they may be grown in boxes of a depth of about 7 inches. Let such a pot be wiped clean (or, better still, be washed) and three good-sized pieces of broken pots be placed over the hole at the bottom of the pot to ensure good drainage. On these place a layer, 2 inches deep, of rough leaf-mould, well pressed down, or well-decayed manure in a dry state will do. Fill the pots to within 1½ inches of their brims with ordinary good garden soil, not too heavy, adding to each bushel of soil half a gallon of leaf-mould and the same of well-rotted manure before using. It is important to have the soil moderately dry at the time of planting. Dibble into each pot, 2 inches deep, ten Peas at regular distances.

After sowing, the pots may be placed in any out-of-the-way corner, such as under greenhouse shelves, if no better place is available, but they must be protected from water falling upon them. As soon as the young plants are above ground they should be placed in some light position, near the glass if possible, and never be exposed to too much artificial heat. Fresh air should be admitted freely whenever the weather is favourable. They must be carefully watered and kept on the dry side rather than the wet until a crop of pods are formed, when they will take water much more freely. Short sticks should be placed round the sides of the pots as soon as the plants are 2 inches high. Sutton's Reading Wonder is a splendid variety to grow for this purpose; height, 12 inches to 18 inches. KITCHEN GARDENER.

TREES AND SHRUBS.

THUYA GIGANTEA.

THIS valuable ornamental evergreen tree was long known as Thuya Lobbii, named in honour of the celebrated gardener and traveller, William Lobb. It is a native of North America, and was not introduced to this country in any quantity till about 1860, when a batch of seed was consigned to the

A FINE SPECIMEN OF THUYA GIGANTEA AT LEONARDSLEE.

Veitchian firm at Exeter and the plants were distributed from that nursery. It is just possible that some of the giants we see to-day were obtained from that source. During the last twenty years it has been grown and distributed in large quantities. There are now many fine trees in this country, and these promise to become very tall, as they seem to stand the wind, the wood being tough and pliable. The tree is quite hardy and well suited to the variable climate of our islands. The one illustrated is by no means the largest specimen here (Leonardslee), but is, nevertheless, a fine one, and bids fair to outrival all other trees in height, as will be seen by the Oaks and Beech in the vicinity. The tree does well on nearly any soil, though an annual top-dressing does it good. It looks well as a specimen or in clumps in parks or woodlands, and affords excellent shelter from winds and shade for cattle. It can be raised quite easily from seed and good plants secured in a few years, as it is quick-growing.

SOLANUM CRISPUM (POTATO TREE) AT LEONARDSLEE.

THIS Solanum, commonly called the Potato Tree, is an extremely interesting plant, especially when grown against a wall or building, or even in the open in favourable spots. It has blue flowers, which are produced in abundance, and lemon-coloured stamens. The plant is very easily grown at the foot of a south or west wall in moderately rich soil, which should be made firm, so that the growth is more solid. Give plenty of water in hot weather when the plant is making vigorous growth. It flowers very early, and, therefore, that is one advantage; but in cold places it is apt to get somewhat damaged by frost. This should be guarded against the first season after planting. The plant represented in the illustration is only four years old, and it grew so well and vigorous that another spot was found for it in the open border, where it has done equally well, and at the present time is 12 feet to 14 feet in height. We claim that it is so far hardy, as it stood 24° of frost last winter with only a barrowful of coal-ashes spread over its roots and a little dry Bracken placed among the branches during the frosty period.

It can be propagated from cuttings, which rapidly make good-sized plants. It is very necessary to have good strong creosoted poles, or the wind would do damage. The growth is dense and the poles are soon hidden from view.

Solanum jasminoides is a white-flowering species which grows very freely in mild districts all around London and the Southern Counties. It flowers late in summer and in great profusion, and is very pretty and effective for covering walls, buildings, unsightly fences and similar structures, but should be protected during frosty weather, especially over the roots. This plant makes a charming companion to Passiflora cærulea, which does well in the same aspect and soil. These climbers require constant attention in tying, as they grow rapidly; and when this is done the grower can train them just where and how he likes.

Trachelospermum (Rhyncospermum) jasminoides.—This is better known as a greenhouse plant, but it can be grown on a south wall outdoors quite as well. It is an evergreen, with white, waxy and deliciously scented flowers, which appear in July and August. It has stood, with slight protection, the same amount of frost as the Solanums. The soil, however, should be made somewhat lighter in character. The proper mixture in order to be successful would be one-third leaf-soil, one-third peat and the remainder loam or garden soil if it is not too heavy. The plant should be kept neatly tied in position, when it will be attractive all the year round.

Horsham. W. A. COOK.

CHOICE TREES FOR PRESENT PLANTING.

THE rearrangement of a garden or the alteration of any particular portion provides a good opportunity for getting rid of worthless or worn-out trees and of reducing the number of those common to the neighbourhood to make room for choicer ones which will give the garden a more interesting effect. With the idea that notes on out-of-the-way trees may be of interest to those who have garden alterations in hand, the following selection has been made.

As to whether the trees should be planted singly or in groups depends largely on the available space. Given ample room in large gardens or parks, groups can be made very effective; but for gardens of less pretentious dimensions single examples are often desirable, for if several trees of one kind are planted, the available space is soon occupied, whereas if single specimens of each kind are taken, a more varied collection may be formed. A tree of great beauty and more than ordinary interest is found in the

Maidenhair Tree (Ginkgo). It grows rapidly in many parts of the country, and succeeds in loam and peaty soil. The leaves are distinct from those of any other conifer and, in fact, from any other tree, being peculiarly flattened and bearing a strong resemblance to the leaflets of a Maidenhair Fern. Trees 70 feet to 80 feet high, with good-sized trunks, are met with occasionally in the British Isles. Another ornamental tree is the

Kentucky Coffee Tree (Gymnocladus canadensis). Young trees which are growing vigorously frequently produce very large leaves, and these may be measured up to 3 feet in length and 1½ feet in width. They are doubly pinnate and very handsome. The bark of the young wood is white. Ordinary soil suits it, and it eventually grows into a large tree. The larger-growing Sycamores and Maples provide several trees which might be planted more extensively.

Maples.—The Box Elder (Acer Negundo) is not often met with as a large tree, yet it is useful for ornamental purposes and may be used where the well-known variegated variety would be out of place. The Montpelier Maple (Acer monspessulanum), again, though not a large-growing tree, is worth attention by reason of its small, distinct leaves and pretty yellow flowers. A. pennsylvanicum, on the other hand, grows into a large tree, and is of service on account of its large leaves, but more so by reason of its bark, which is prettily striated with white. A. obtusatum is remarkable for its showy flowers, while A. platanoides variety Schwedleri produces rich reddish purple young leaves in spring. A. Volxemii is noted for its large leaves, as also is A. macrophyllum. The latter bears very ornamental racemes of fruits, which are frequently 9 inches long. Among

Horse Chestnuts, the Indian Horse Chestnut (Æsculus indica) ought to be planted more frequently. Its flowers are not unlike those of the better-known tree, but they are borne

SOLANUM CRISPUM IN THE GARDENS AT LEONARDSLEE.

in July. It ought not to be planted in very cold situations. A Chinese Chestnut (Æsculus turbinata) should also be obtained, while a very rich-coloured variety of the Red Horse Chestnut is found in E. Briotii. The

Tulip Tree is always popular and it thrives well, at any rate, as far North as Cheshire; strange to say, it is not planted so frequently as one might imagine. There is now another species known, L. chinensis, a native of China. Judging by the way it is growing so far, it will outgrow the American kind.

Magnolias are near allies of the Tulip Tree, and such large-growing sorts as M. acuminata, M. tripetala, M. Kobus and M. hypoleuca well merit attention. For mild counties M. macrophylla and M. Campbellii should not be omitted, for though they do not form such large trees as the foregoing, their flowers are very large and beautiful. Magnolias in general like peaty soil, but will grow well in good loam. A tree very rarely met with outside botanical gardens is

Cladrastis tinctoria, a relative of the False Acacias, remarkable for its long racemes of white flowers.

The Persimmon of the United States (Diospyros virginiana) forms a good-sized tree, with curiously corrugated bark which is quite handsome in appearance. At least two

Hazels may be reckoned among timber trees; these are the Constantinople Hazel (Corylus Colurna) and C. thibetica. The

Deciduous Cypress (Taxodium distichum) is useful for planting about the margins of lakes or streams where its roots can enter the water; its columnar growth in a young state gives it a distinct appearance, while the pale green tint of the foliage in spring and the rich brown of the decaying leaves in autumn are wonderfully effective. Another useful waterside tree is

Pterocarya caucasica. — This has handsome pinnate leaves and long, drooping catkins of winged fruits. It is remarkable for the spread of branches rather than height. Several of the Walnuts might readily be given more attention than at present, and such ornamental kinds as Juglans nigra, J. cinerea and J. cordiformis ought not to be overlooked.

Hickories or *Caryas*, the near relatives of the Walnuts, grow rapidly in poor ground and are of decorative worth. Good ones are C. alba, porcina, sulcata and tomentosa.

Oaks.—These offer a number of ornamental trees which are rarely met with outside scientific establishments, Such sorts as Quercus conferta, Q. Mirbeckii, Q. velutina, Q. macranthera and Q. macrocarpa are all remarkable for fine foliage; while Q. Libani, the Lebanon Oak, has smallish leaves and very large acorns; Q. Phellos has Willow-like foliage; and Q. coccinea is remarkable for the rich red colour assumed by the leaves previous to falling—the best form of this is known as Knap Hill Scarlet. Among

Ashes, the flowering kinds, such as Fraxinus Ornus, are of decorative value, while the American White Ash (F. americana) is particularly vigorous in growth. The flaky, papery bark of Betula papyrifera is attractive, while the large foliage and silvery bark of B. Maximowiczii make it a desirable Birch to cultivate.

Though these by no means exhaust the list of large-growing ornamental trees, they are sufficient to show what a number there is to choose from. W. D.

THE WINTER SWEET (CHIMONANTHUS FRAGRANS).

CHIMONANTHUS FRAGRANS, or Calycanthus præcox (the Winter Sweet), is a deservedly popular shrub, and is represented in many gardens. It comes from China and Japan, was introduced in 1776, and is perfectly hardy, but to encourage it to flower freely, wherein its chief attraction lies, it must be given a warm position where it can thoroughly mature its growth, otherwise the display of flowers will be poor. Therefore, except in more favourable localities, a portion of a wall, if possible, should be devoted to it, to which position it adapts itself most readily. It will soon cover a space and attain a height of 10 feet or 12 feet, whereas a bush specimen rarely exceeds half that in growth. Chimonanthus fragrans is one of those charming shrubs that produces its flowers before leaf-growth begins from November onwards, according to the position it occupies. The delicious fragrance emitted is soon detected upon approach to the plant. In sheltered positions it is not uncommon for it to perfect its fruits. To encourage a free and young growth, upon which the flowers are produced, it is well, after the flowering season is over, to prune back fairly hard. Of this shrub there is a variety, C. fragrans grandiflorus, with larger flowers than the type. E. B.

A NEW SINGLE CHRYSANTHEMUM: CALEDONIA. (*Very much reduced.*)

THE FLOWER GARDEN.

NEW SINGLE CHRYSANTHEMUM CALEDONIA.

THE illustration of flowers of this beautiful variety does not give one a really good idea of the size and substance of the blooms. The average width of the flowers is 8 inches, and the florets are very firm and beautifully arranged round the handsome yellow disc. The colour is a very pleasing shade of rosy lilac, this being palest nearest the centre of the flower. This variety has been largely shown by Messrs. G. Williams and Sons, Manor House Nurseries, Cardiff, and among other honours has received an award of merit from the Royal Horticultural Society and a first-class certificate from the Royal Caledonian Horticultural Society. It promises to become one of the leading exhibition varieties of the future. The habit of the plant is good and its constitution vigorous.

SOME OF THE BEST SWEET PEAS FOR THE GARDEN.

I DO not think enough attention is given in seed lists and in the books—great and small—on the Sweet Pea as to the respective merits of the multitudinous varieties for garden decoration, pure and simple. For example, "stems" and "fours" have a different value here from what they have on the show table, and the fascinating shrimpy orange and the glowing orange red shades that are so charming as we see them at exhibitions are often the most woe-begone looking objects in the border after a few sunny days. I have grown from 100 to 120 varieties every season for the past three or four years, and it occurred to me last summer to try and make up my mind which twelve or eighteen behaved best from a purely garden point of view.

Three essentials to be noted for this purpose appear to me to be: (1) Freedom of flowering, (2) continuity of flowering, (3) brightness and durability of colouring. There are, of course, other things, such as strength of growth, being well feathered (leaved) down to their roots like a Brahma hen, scent, and the effect at a distance or in a mass, that must also be taken into consideration and given their due weight.

In giving my present selection I have chosen those varieties where the predominant partners of the firm of "The Garden Pea" have been freedom, continuity and colour as evidenced in their visible influence. Here, then, is my list with a few notes added by way of explanation or illustration: (1) Bolton's Pink, a marvellous free-flowering sort, very bright, and one that always caught my eye; (2) Paradise Ivory, grand, never tired of flowering; (3) Maroon Paradise, decidedly *the* dark variety in my garden; (4) Asta Ohn, a pleasant surprise from America. I fancied it was better than my old favourite, Frank Dolby; (5) Mrs. C. W. Breadmore, more robust in growth than Evelyn Hemus and, I think, freer; (6) Kitty Clive, the best of the orange reds for not burning, and if not so bright as St. George, it has not its horrid tendrils;

(7) Countess Spencer, still unbeaten. It will turn out to be a sort of "Marathon" goer among the harder pinks; (8) Nora Unwin, the best of the waved whites. I think the slighter wave in its standard makes it more effective than those where the wave is greater; (9) Dorothy Eckford, still unbeaten for a real dead Arum Lily white; (10) Apple Blossom Spencer, all right except for its name, which, judging by its flower, should not be Apple Blossom. Early in the season Mrs. A. Ireland, which is somewhat similar, took the lead, but that variety runs not well but badly, and Apple Blossom Spencer came in first at the finish; (11) Flamingo (Robert Wright).—Is this the same or different from Aldersey's Flamingo? A real good red that will not go blue like Scarlet Gem, and that will be a freer flowerer than Queen Alexandra, is wanted. Wright's Flamingo is getting on that way. If I were limited to one of this shade, this would be the one I would choose. Whether G. Stark will beat it remains to be proved; (12) A. J. Cook, always there when wanted, *nulli secundus* with me of the deeper mauves; (13) John Ingman—My little clump went wrong, and Paradise Carmine was the brightest and best in 1909 of the rosy carmines, but John Ingman has been so good in the past—quite exceptional—that I used to imagine every time I went round my Peas that it was as in 1908, and I feel I must put it down; (14) Olive Ruffell, to me the Pea of Peas. I forgive its not being fixed and it running somewhat as it ages, but the true blooms were superb and it made a glorious tangled mass of colour and leaf. I cannot see it in any 1910 list, so this year I will have to be content with its paler sister, Constance Oliver; (15) Clark's Queen and Mrs. A. Watkins, bracketed first among the blush pinks. Sentiment comes in sometimes, try to avoid it as one will, and the old-time style of naming always appeals to me. It may be that I see more in Clark's Queen than there really is, but then I am writing of what *I* like; (16) Mrs. Henry Bell, a warm pink to conjure with, free, well feathered and pretty; (17) Lord Nelson, fairly free and continuous, but not so effective at a distance—still, the uniqueness of its colouring cannot be overlooked; (18) Menie Christie, free and very effective, a colour of its own which I leave to those who grow it to describe. I call it a sort of bluey rose.

The foregoing list must be taken for what it is worth. It records an individual's personal likes and apprises the varieties by his own somewhat nebulous standard. Just, however, because of this it may have an interest to my brethren of the Sweet Pea cult.

DAFFODIL PRINCESS JULIANA.

THIS is a new Daffodil which bloomed for the first time last spring in the gardens of Messrs. de Graaff Brothers at Leyden. I chanced to be there with Mr. E. A. Bowles on the day before the Princess was born, and saw it among the collection of cut blooms that the firm always has in one of its sheds during Daffodil and Tulip time. Its size, symmetry and balance were so striking that my friend made a life-size sketch of it before we left. The illustration on page 64 is a reduced reproduction of this sketch, and gives a very good general impression of what the flower is like. It is the result of a cross between the celebrated King Alfred and the not so well-known Sir Francis Drake, a very similar variety, but with paler yellow colouring and with the Maximus characteristics less marked. Princess Juliana is a deep yellow self with a large, handsome, boldly and evenly recurving trumpet of the very size the flower seems to require. It has a flat, even, overlapping perianth with the three inner and the three outer segments differentiated by their sharper or blunter points, the rather marked difference of which gives lightness and grace to what is undoubtedly a great "show" flower. If time proves it to have a good constitution, I anticipate that it will occupy among the yellow trumpets an analogous position to that which the same firm's famous Mme. de Graaff does among the paler ones to-day. JOSEPH JACOB.

THE DOUBLE-FLOWERED ARROW-HEAD.

ONE of the most striking and beautiful plants suitable for growing at the margins of ponds, lakes, or even slow-running streams in this country is the double-flowered Arrow-head, Sagittaria japonica flore pleno, or S. variabilis flore pleno as it is now sometimes known. As will be seen by the accompanying illustration, this makes a bold group, the handsome foliage, shaped roughly like an arrow-head, and the good-sized whitish flowers rendering it a plant of considerable interest. In common with the other members of the family, this plant does best in water from 6 inches to 1 foot deep, the tuberous-like roots being planted firmly in the mud. A colony of six or more roots should be planted, according to the area of the water, as by so doing a more imposing effect is obtained than would be the case if single roots were dotted about at intervals.

THE DOUBLE-FLOWERED ARROW-HEAD (SAGITTARIA JAPONICA FLORE-PLENO).

THE ROSE GARDEN.

ROSE SOIL UNSATISFACTORY.

[*In Reply to "Ambitious."*]

YOU have, indeed, a very heavy clay soil to deal with, but it is one many rosarians would be glad to possess. We think the reason of your partial non-success is owing to the fact that you do not break it up sufficiently deep. Eighteen inches is not a sufficient depth for the roots. Then, again, the soil is much too close and retentive of moisture. This could be altered by giving your beds a good dressing of cinder ashes or, what would be better, some burnt garden refuse. Your best plan would be to lift all your Roses at once, remove any foliage and shorten growths to about 2 feet; then lay them in by their heels in a shady spot. This being done, proceed at once to trench the soil. What is known as bastard trenching would suffice. This is done as follows: Take out a trench 3 feet wide. The first spit of soil all the length of the trench is wheeled to the point where the trenching will finish. Then shovel up the loose soil and wheel that away also. Now take a good fork and dig up the bottom soil. This will result in moving the soil fully 2 feet deep. Upon this forked-up base you should give a dressing of basic slag and some ashes; then fork it over again. Following this, spread over it some well-decayed farmyard manure, not cold, wet stuff, but really nice well-decomposed stable manure. This trench is now ready to receive the top spit and loose soil of the second trench. As this is turned over you might admix some half-inch bones.

Having trenched all the soil, allow it to lay about two weeks; then replant your Roses, discarding any unhealthy plants for new, well-rooted specimens, for it never pays to try and nurse up Rose bushes or standards, seeing that good, healthy stuff is now obtainable so cheaply. When replanting, trim over the roots, dip them in thin mud and place them about 6 inches below the surface. Each bush or standard should receive about two shovelfuls of good compost consisting of loam, well-rotted manure, leaf-soil and sand in about equal parts, with half a part of bone-meal added. This seems a lot of trouble, but it will repay you handsomely.

You will find your Tea Roses will come a good size by adopting this plan, especially if you give them plenty of liquid manure when buds begin to show and well suppress the growths that appear on the stems that carry the blooms. If you desire quality, you must prune hard and grow the large-flowered Teas. Try and raise the bed about 12 inches in which you plant your Tea Roses, as by so doing the soil will be naturally drained and the bushes much more likely to stand severe frosts during the winter months. The hardier Hybrid Teas and Hybrid Perpetuals should do well on beds about level with the surrounding soil, providing you treat them as advised above. Do not carry out the final pruning until the end of March, when particulars concerning the work will appear in THE GARDEN.

GARDENING FOR BEGINNERS.

PRUNING PEACHES AND NECTARINES.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—With the advent of February work in this department will be on the increase and, providing the weather is fine and dry, there will be much to attend to. Where Shallots are to be grown, these may now be planted, provided the soil is in working condition. They may be relied upon to do well in almost any soil that is well drained and cultivated, and which is moderately rich. The bulbs or cloves should be divided and each one planted separately, making the rows 10 inches apart and the bulbs 6 inches asunder in the rows. Deep planting must be avoided, a good and safe plan being to allow the tuft at the top of each bulb to show above the soil. Where a cold frame or a portion of one is available, a bed of fine and rather sandy soil, several inches deep, may be made and some Radishes or Carrots sown therein, scattering the seed thinly and covering it very lightly with sandy soil, making the bed in each case moderately firm after sowing. Wood's Frame and French Breakfast are good Radishes for this purpose, and Sutton's Inimitable Forcing, Carter's Golden Ball and Early Gem are all good Carrots for producing early roots in frames. Failing a frame, a very warm spot outside may be selected and sown with one of the varieties of Radish named, as should the weather subsequently prove favourable, some early roots will be secured. Of course, the seed and seedlings outdoors must be protected from birds, which are very fond of them.

Flower Garden.—The shoots of many herbaceous plants are now pushing their way through the soil, and where slugs are prevalent, these pests, which seem to rest not winter or summer, are certain to take a heavy toll of them unless steps are taken to stop their depredations. A simple plan is to form a ring of sharp coal-ashes around each plant, as slugs do not care to crawl over these. Even better is Apterite, a proprietary compound often advertised in THE GARDEN and which I have found is heartily detested by slugs. Scattered around the plants as directed by the vendors, it is an absolute safeguard to young shoots, and when in operation the gardener may rest assured that his choice plants will not be destroyed. Providing the weather is not frosty and the soil is not sodden, the present is an excellent time to divide and replant nearly all kinds of herbaceous plants where this work could not be done in the autumn. Now that new growth is commencing, the roots quickly take hold of the new soil, and the disturbance is scarcely felt. The ground intended for Sweet Peas ought to have been dug and manured some time ago; but where the work was neglected at that time it must be done at once, as it will not be long before the time for sowing is with us.

1.—A SECTION OF A PEACH TREE THAT HAS NOT BEEN FINALLY PRUNED.

Greenhouse and Frames.—The making and planting of Chrysanthemum cuttings will now be in full swing, and as they are formed on the old stools, they must be removed and dealt with promptly. Where possible, only those shoots which spring direct from the base of the old plant should be used for cuttings, those which form on the old stem above the soil rarely proving satisfactory. An ideal cutting should be about 3 inches long and not quite so thick as an ordinary lead pencil. After cutting it through with a clean, sharp knife immediately below a joint, the lower leaves must be cut off, and the cutting is then ready for planting. The best system of planting is undoubtedly to place one cutting in a 2½-inch pot, but where this is not convenient, three may be planted around the sides of a 3-inch pot. Whatever size is used, the drainage must be rendered perfect by placing pieces of broken pot in the bottom. Suitable soil for the cuttings should consist of loam two parts, and coarse sand and well-decayed leaf-soil half a part each, the whole to be passed through a half-inch mesh sieve, retaining some of the rougher portions to place over the drainage. Plant the cutting an inch or rather more deep and keep in a rather warm and fairly close but light place until rooted, after which gradually inure to more air and cooler conditions.

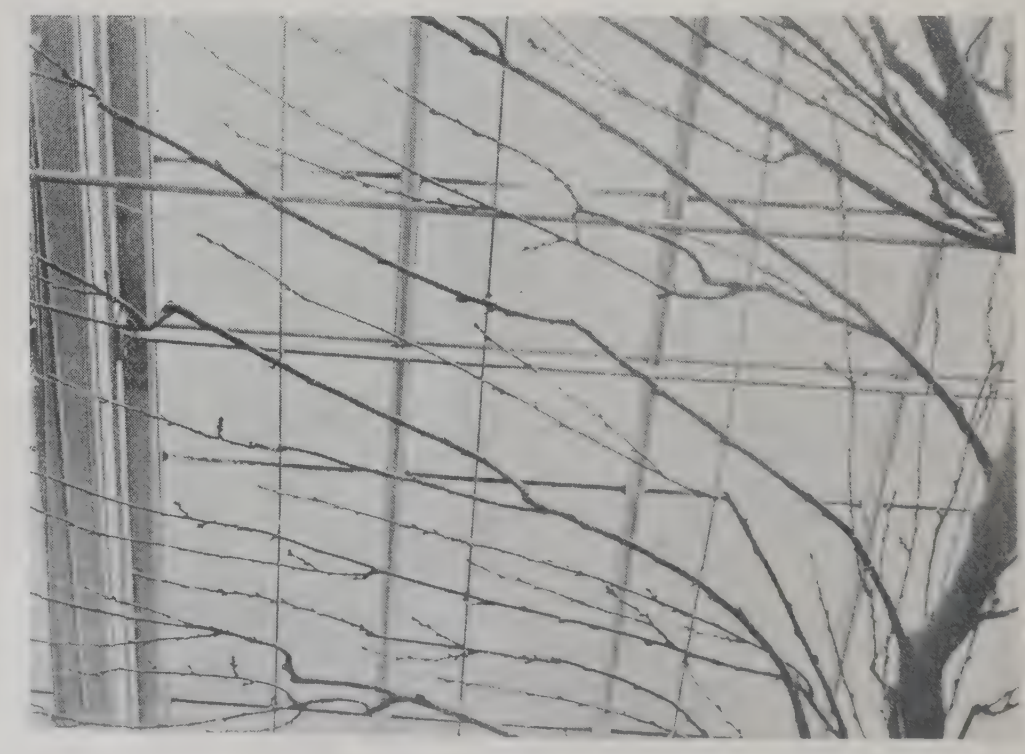
Fruit Garden.—Undoubtedly the end of October and the whole of November is the best time of the year for planting all kinds of fruit trees; but where the work could not be done at that time, the early part of February may be regarded as the next most satisfactory period. At this time the roots are beginning to get active and quickly take possession of the new soil. Providing the weather is not frosty and the ground is sufficiently dry, the earlier in February the planting is done the better, and no time should now be lost in completing the work. Strawberries may also be planted now with good results. Of course, crops as good as those that will be obtained from beds planted in September last cannot be expected; but a few fruits of moderately good quality may be secured. Rows 2 feet apart and the plants 15 inches asunder in the rows is a good workable distance to plant where space is limited; but where there is plenty of ground to spare, 3 inches more each way may be allowed. Avoid planting too deeply; the bases of the leaves forming the crown should be just level with the soil, and not buried below the surface as is frequently done. This is a small point, but one that may make a success or failure of the crop. A. A.

PEACHES AND NECTARINES.

HOW THE TREES SHOULD BE PRUNED AND TRAINED.

THE present period is most opportune for considering how and when trees of Peaches and Nectarines should be pruned, nailed or tied, in order that satisfactory fruiting results may be obtained within the next six months. Peaches and Nectarines can be cultivated quite satisfactorily by an amateur provided the grower will give the necessary time and afford the trees the position they require.

A three-quarter span-roofed glass structure is excellent for the purpose, as this enables the cultivator to train his trees to a trellis-work erected 2 feet or less below the roof and to plant



2.—A SECTION OF A PEACH TREE THAT HAS BEEN PRUNED AND SUBSEQUENTLY TIED IN POSITION.

3.—A LARGE SECTION OF A PEACH TREE THAT HAS BEEN PROPERLY PRUNED, BUT THE SHOOTS HAVE NOT YET BEEN TIED IN THEIR PLACES.

and train other trees to the back wall, again fixing a wire trellis, to which the growths are to be secured and neatly trained. Where this method of planting and training Peaches and Nectarines is followed, both series of trees obtain all the light and air that is necessary.

Ventilation is an all-important factor in successful culture, and adequate provision should be made for this. Horticultural builders of good repute know so well what is best in this matter that the question of ventilation is quite safe in their hands. In winter and spring the temperature is generally regulated by the proper use of the top ventilators, and in this connection it is of the utmost importance to remember to avoid draughts at all times. Adequate provision should be made for an abundant supply of air during the summer months. Glass houses of the kind herein alluded to should have a position facing south, but span-roofed houses, which are so popular with amateurs, should have the ends facing north and south respectively.

A good border is essential, and this should be about 2 feet deep inside and outside the house, and 8 feet to 10 feet in width. A good system of drainage should be effected, and the soil for the border must comprise chiefly good turfy loam cut up into rather large pieces, to which should be added old mortar rubble, road sweepings and a good sprinkling of half-inch bones. When planting these trees observe a distance between them of about 8 feet to 10 feet, according to the size of the glass structure, and be careful to take out sufficient soil to spread out the roots to their full length. Although it is a good plan to plant Peaches and Nectarines in the autumn, planting may be done quite safely at any time between the autumn and the end of February or early March. The earlier this work is done the better, however.

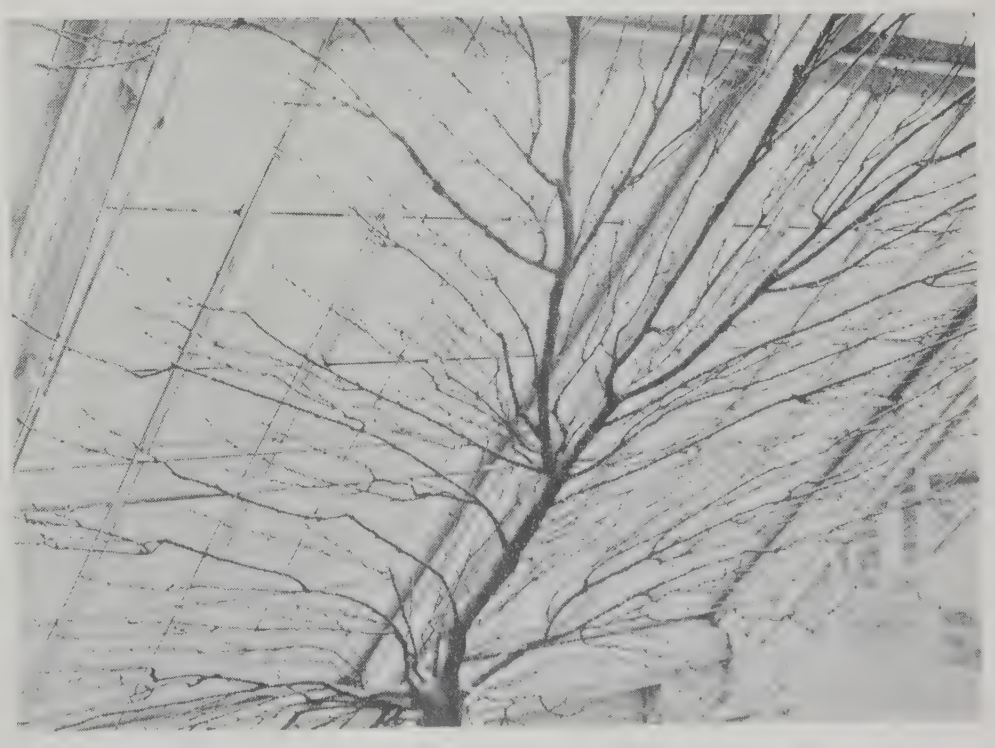
Pruning may be said to begin as soon as the fruits have been gathered. This is described as summer pruning, and consists of cutting out surplus wood from the trees so that sun, light and air may each contribute its share of beneficent work in ripening the new growths. Beginners should remember that the best fruits are developed on growths that are well matured. At the period just referred to there are two series of shoots that are making growth, viz., shoots on which the fruits have developed, and others of recent growth that have developed to supply the succeeding season's quota of fruits. Therefore, as soon as the fruits are gathered, cut out the shoots that have borne the fruits, using a sharp knife and making a clean cut in a sloping manner. Make the cut at a point just above where the new shoots are evolved in lateral fashion. By adopting this rule throughout the trees the flow of sap is diverted into the new shoots that are retained.

This brings us to the present period, the early part of a new year, when trees that have not been finally pruned and tied should receive this attention without further delay. To simplify matters for the beginner, a section of a tree that has not yet been finally pruned is shown in Fig. 1. A number of shoots that had borne fruits in the past summer were cut out as soon as the fruits had been gathered, and, in the interval that has elapsed since, the new shoots have been growing vigorously and ripening also. Our concern for the moment is to complete the pruning of the summer-pruned trees, and this will necessitate cutting out superfluous growths and any of last season's fruiting growths that have been overlooked. Any naked branches that run from the stem or centre of the trees to their extremities must be cut back to a better disposed inner branch. The centre of trees treated in this fashion become better furnished with shoots that will bear fruits, and this, after all, is the great desideratum of the grower. If summer pruning has not been done, proceed at once to cut out last season's fruiting shoots, so that sufficient space may be available for the young that are to bear fruits this summer. Should the young shoots be somewhat crowded, they must be thinned out, so that they may not hinder the proper development of the more promising growths among them. It is better to retain the shoots on the upper side of the branches.

In Fig. 2 a section of a Peach tree that has been carefully pruned and subsequently trained is shown. Weakly shoots of young wood may be safely shortened, as this has the effect of encouraging the development of stronger growths in the following season. Not so, however, is this the case with growths of an extra strong character. When these are cut back rather hard, this treatment has the effect of developing growths of an even stronger and coarser kind, and this latter is unfruitful and unsatisfactory. When cutting back the shoots of a weak character, shorten or rather cut back to a wood-bud, which can be found in most cases.

Fig. 3 portrays a section of a large tree after pruning, and before the growths have been trained and tied. Readers will note the bare spaces in which the growths may be tied out into shape with comparative ease, and they will also observe how impossible it is to leave the growths as they are represented in the picture. They may be secured by soft shreds and nails to newly lime-washed walls, and the greatest care should be taken that the bark does not get damaged in the operation. Damage to the bark means that gumming ensues, which is a most unsatisfactory state of affairs, as it may lead to damaged branches, and the loss of many fruits as a consequence. I prefer to fasten the growths to the wire trellis already referred to.

In Fig. 4 a tree that has just received its final tying is shown. It will be observed that the main branches are first distributed evenly and regularly, and that the young fruiting growths are also distributed evenly, some 4 inches more or less apart, all over the tree. D. B. C.



4.—A PEACH TREE THAT HAS BEEN PROPERLY PRUNED AND TIED. NOTE THE EVEN DISTRIBUTION OF THE SHOOTS.

BROWN SCALE ON PEACH TREES.

THE novice may not have noticed a number of brown lumps, almost resembling buds, on the branches of Peach and Nectarine trees. The brown scale has the appearance of raised bits of bark on the shoots, and unless the cultivator examines them closely they may be left to increase at an enormous rate. If one single scale be left on a tree in spring-time it will so increase as to entirely spread over the whole tree by the end of the summer. The excrescence from these insects mars the leaves and spoils the fruits. The moment the spring warmth commences the pests breed rapidly. The young scale is of a dirty white or whitish yellow colour, and first appears near the base of the youngest shoots. As time passes the scale increases in size and in numbers, and gradually turns to a brown colour.

For destroying these pests there is no better opportunity than while the branches are leafless. Four ounces of soft soap should be gently boiled in two quarts of water for twenty minutes, and then 2oz. of flowers of sulphur must be added and the whole mixture boiled for ten minutes more. Then put three quarts of clear water to the boiled mixture and very thoroughly paint the whole of the hard wood of the trees with it. All the brown scale must be cleared off. Do not touch the young wood, on which the fruit-buds are borne, with any of the liquid. Syringe the whole of the branches with clean water directly the scrubbing with the insecticide is finished. SHAMROCK.

THE TOWN GARDEN.

SWEET VIOLETS.—It is doubtful whether any hardy or popular fragrant flower of the garden causes so much disappointment from one cause or another as the Violet. Given to disease in large degree, the result in not a few instances of too rich a soil, the plants frequently disappoint when they should be yielding abundantly of their fragrant flowers. Another source of trouble and disappointment is the failing to flower of those plants which were lifted and placed in frames in October, and which have not only failed to develop the buds that have appeared from time to time, but scorching or browning at the margins of the leaves have given every indication of the unhealthiness. The October lifting and framing of the plants is much too late, with the result that the plants exist upon their own resources for weeks together, and, no new root-fibres being formed, the plants show their disapproval of the treatment by the only means in their power. To further discuss the proper time for lifting and framing at this moment would be unseasonable; hence I direct attention to a means of cultivating the Violet which, if rightly performed, will bring forth more satisfactory results. The idea is simple enough and within the reach of all.

PLANTING IN PERMANENT BEDS.—Instead of planting in the open beds or borders of the garden, a bed should be made up in the position usually given to the plants in winter, the plants to occupy a slightly raised bed of a size that will permit of the garden frame usually employed being placed thereon when the time arrives. This arrangement will do away with the need for lifting the plants at all; hence there will be no check to progress at a most critical period, but rather that measure of protection and encouragement will be afforded which is so desirable to the plants at the period I have in mind. It is possible that a little more attention in watering during the summer will be required; this will be doubly repaid by the greater harvest of flowers.

SEASONABLE FLOWERS.—The seasonable flowers of the garden at the present time are few and far between, yet they are sufficiently precious to be worthy of remark in the opening days of February. From time to time the daily Press provides many highly coloured examples, and while ignoring the true flowering plants of the time, is prone to go into ecstasies over a solitary expanded blossom of the Chickweed. Just now, however, the Christmas Roses are finer than ever, the Winter Aconite is pushing forth its golden cups from a collarette of emerald green, the Winter Jasmine is aglow with golden flowers in many a garden, while the fragrance of the Winter Sweet (Chimonanthus fragrans) is wafted from the quaintest of blossoms on leafless twigs—a precious flower indeed, and a few sprays dropped in a saucer of water are ample to make its presence known in quite a large room.

ANEMONES AND RANUNCULUS.—The tubers of these plants should now be obtained without further delay and the planting done forthwith. To a large number, perhaps, who have not grown these hitherto the size of the roots will mislead if they do not actually disappoint; and just as small and cheap flower seeds are invariably sown much too thickly, so will these small-looking roots be planted too thickly if a timely warning is not given. Size in these plants, however, must be disregarded and the tubers planted not closer than 3 inches, and better if 4 inches asunder and much the same in depth.

WORMS IN POT PLANTS.—There is nothing more tiresome than the worm under these circumstances, and nothing calculated to bring a plant into indifferent health more quickly if neglected. Occasionally a worm may be trapped by knocking the plant out of the pot, though more frequently the pest knows all the subterranean passages a ball of earth may contain and makes good its escape. By standing the plant in a pail of clear lime-water the pest is usually killed outright. E. H. JENKINS.

THE FRUIT GARDEN.

FRUIT NOTES.

PROTECTING GOOSEBERRIES. Although by all good laws the food for birds should become much more abundant during the present month, it is more than likely that they will still turn their attention to the buds on the Gooseberries if they have the opportunity. It is desirable that the pruning, which is seldom carried out in the autumn because of the loss of buds caused by the feathered visitors, should now be accomplished as soon as possible, and to this end the shoots that have been tied up in cone-shaped bundles must be released; necessary cutting is then done, and with all the buds exposed the birds have their chance, and they will not be slow to avail themselves of it. As a preventive it is excellent practice to thread the plants freely with very strong black thread, forming such a perfect network that the birds will avoid the bushes. If this is thoroughly done the losses will never be serious; but additional security will be gained by following with a dusting of lime whenever the stems and branches are damp.

RASPBERRIES.—The bulk of all planting work should be completed in the early months of winter, but it is practically certain that some will remain to be done in the spring. February is the best time for this, and it should be pushed on with all possible speed whenever the weather is favourable to such operations; but it is bad policy to attempt any planting when the soil is either frozen or sodden with water. Raspberries are commonly planted in the spring, and directly this part of the work is finished, the stems should be cut down to within 6 inches or so of the surface of the ground, with a view to giving the plants an opportunity to become firmly established at the roots before they are called upon to bear the strain of fruiting. If there is an abundance of short, sweet manure at command, a 2-inch mulching may be spread on the new plantation. Older beds that were not properly mulched in the autumn must be seen to forthwith. All vestiges of weeds should be removed, digging them in in the middle of the rows, provided that this can be done without injury to the roots, loosen all the soil by hoeing or pricking over lightly with a fork, and apply a heavy dressing of manure or a mixture in equal proportions of manure and half-decayed leaves.

GRAFTING.—Old stocks upon which it is purposed to work scions of approved varieties immediately the conditions are favourable should have attention during the present month, and the earlier the better. To head back and at once insert the grafts on old stumps is not conducive to success; on the contrary, the failures may be more serious than one cares to contemplate; but if the heading back is done a few weeks in advance the prospects become very much brighter. Therefore remove the strong branches as soon as possible to within 18 inches of the bole, and if it is considered needful it will be easy to cut back a little closer just when the work is to be done. After the sawing has been finished, the wounds should be pared smoothly over with a very sharp chisel, or, if it is more convenient, with a sharp knife. In the possible event of the pruning not yet being finished, it should be done at once, and clean, healthy pieces should be chosen, tied in bundles and placed under a north wall or hedge, where they will remain quite dor- the time for insertion arrives.

MULCHING.—All work of this nature should be pushed forward with the utmost speed, with a view to completion as quickly as possible. It is most desirable, but not absolutely necessary, that the surface of the soil from within a few inches of the bole of the tree to at least 2 feet beyond the extreme spread of the branches shall be lightly forked over before the covering of manure is put on, but care must always be taken in this that the roots are not seriously injured. Preference should be given to comparatively short manure, since there is not, with this material, such a great liability of its settling down into a loose, unsavoury mass, impenetrable alike by water and air. When this state prevails, the soil is made colder and the roots are driven down from the surface. FRUIT-GROWER.

THE AMATEUR'S VINERY.

WITH few exceptions the success which attends the efforts of the amateur who makes a hobby of Grape-growing falls very short of expectations, and one of the chief causes of failure is the treatment which the Vines receive during the resting season. Probably he does not realise how important it is that the Vines must be given a period of absolute rest during the winter months, or perhaps it would be more correct to say that he does not understand what is meant by giving the Vines rest. Be that as it may, it is invariably the case to find the amateur's Vines resting in the midst of a house full of plants of all kinds. Not only is this so, but one can see at a glance by the appearance of the plants in question that they are not receiving proper attention in regard to ventilation. In fact, it is not unusual to hear that the ventilators have not been opened at all during the whole winter. Under such conditions it is folly to expect the Vines to produce Grapes.

We used to have a large vinery here, which had to be removed to make room for newer and more up-to-date structures. The Vines were planted outside, the roots also being restricted in an outside border. Provision was made so that the rods when pruned could be brought outside, where they were tied in a horizontal position along the front of the house and covered with mats till the buds were on the move in the spring, when they were again brought indoors. During the time the Vines were outside the house was used for the production of French Beans and Strawberries in pots. Such a house as this I would recommend to the amateur, as he would then be able to grow his plants in the proper temperature and, at the same time, give his Vine that period of rest which is just as essential as food and water.

Frogmore, Windsor. E. HARRISS.

NEW ORCHIDS.

ANGULOA CLIFTONII.—This is a handsome new species from Columbia of more than usual merit. The three sepals are bright golden yellow in colour, the dorsal one curving over to form a sort of hood to the petals beneath, the other two being clasped together to form a sort of hook. The petals are yellow, mottled with mahogany, the whole forming a very pleasing combination. The pseudo-bulbs are long, wrinkled, and dark green in colour. Shown by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

Cattleya Miranda Westonbirt variety.—A rather small-flowered variety of much beauty. The sepals and petals are of a delightful rose colour, with a silvery sheen, the comparatively large labellum being rich brilliant carmine with a deep yellow disc. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire. Award of merit.

Cattleya Trianæ Magali Sander.—This is a very charming Cattleya indeed, both the colour and form of the flowers being of a most pleasing

character. The sepals are rather narrow and the petals broad, both being a sort of glistening white faintly tinged with rose pink. The rather broad labellum is bright magenta crimson in colour and the disc rich yellow. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Cypripedium Lord Wolmer.—A bold and handsome flower that does not, however, differ very considerably from some others already in existence. The large dorsal sepal is of the usual green and white combination with purple spots, and the petals and labellum have the usual brownish gloss seen in these flowers. Shown by Mr. H. J. Bromilow, Rann Lea, Rainhill. Award of merit.

All the foregoing were shown before the Orchid committee of the Royal Horticultural Society on the 25th ult., when the awards were made.

FRAGRANT ROSES.

[*In Reply to "Viator."*]

The question as to whether certain Roses are fragrant or not is one in which there may be differences of opinion. In a capital little work entitled "Rhodologia," or a discourse on Roses and the odour of the Rose, by J. C. Sawyer, F.L.S., the author says that "the organs of the sense of smell can be trained to the appreciation of perfumes, especially by young persons, as easily as the palate can be trained for business purposes to the tasting of the flavours of wines, Tea or Coffee." So that if I say certain Roses are to me devoid of fragrance, it does not follow that they may be quite scentless to someone else. It is often asserted that Caroline Testout is fragrant. To me it has the perfume of Tea, nothing more.

Now I take it that when the average person says he desires a fragrant Rose, he is thinking of those varieties that possess the pure odour of Roses, that which is represented in the Cabbage Rose and La France. There are several Roses that have a fruity smell, such as Maréchal Niel and Goubault, which have the perfume of Raspberries. The Hybrid Briar Rose Soleil d'Or has a distinct odour of fruit, which is even noticeable in the foliage, and strangely this is found in the new hybrid Juliet, which originated, on the paternal side, from this beautiful production of M. Pernet-Ducher.

The odour of Violets is very conspicuous in the White Banksian Rose, and also in the dwarf Polyantha sort Eugénie Lamesch. According to the author of "Rhodologia," at different times in the day an individual flower will emit a different perfume, and Roses cut and placed in a vase diffuse their fragrance more powerfully than on the plant. Roses growing under glass give off more perfume than those in the open air; but why this is so has not been satisfactorily determined. When raisers announce a new Rose as fragrant we must take the announcement cautiously, as probably they have obtained their information from forced specimens.

Now as to your list. Of the forty-six varieties you name, I should group the following as very fragrant: Mme. Abel Chatenay, Gladys Harkness, Richmond, Liberty, Countess of Caledon, Charles J. Grahame, John Ruskin, General McArthur, Pharisaer, Killarney, Grüss an Teplitz and Viscountess Folkestone; and the following moderately so: Dean Hole, Mme. Ravary, Betty, Mme. Berard, Countess of Annesley, Bessie Brown and La Tosca. The other twenty-seven varieties are practically without perfume, although some have a Tea-like fragrance. It may be admissible to give for your benefit, and for other readers of The Garden, a list of Roses that may be termed very fragrant. They are as follows: A. K. Williams, Alfred Colomb, Augustine Guinoisseau, Avoca, Beauté Inconstante, Beauty of Waltham, Boadicea, Caroline d'Arden, Charles Lefebvre, Cherry Ripe, Cheshunt Hybrid, Commandant Felix Faure, Conrad F. Meyer, Danmark, Dr. Andry, Dupuy Jamain, Fisher Holmes, General Jacqueminot, Gloire de Dijon, Hector Mackenzie, Hugh Dickson, J. B. Clark, Johanna Sebus, La France, Laurent Carle, Louis van Houtte, Mme. Isaac Pereire, Mamie, Maréchal Niel, Mme. de St. Joseph, Marie Baumann, Mrs. Harold Brocklebank, Mrs. John Laing, Mrs. Anthony Waterer, Nova Zembla, Oscar Cordel, Papa Lambert, Petite Constante, Pierre Notting, Prince Arthur, Princess Bonnie, Provence (common), Rose à parfum de l'Hay, Waltham Climber No. 2, Waltham Climber No. 3, W. E. Lippiatt, W. F. Bennett, White Killarney, Zenobia and Zepherin Drouhin.

The following are distinctly fragrant: Anna Olivier, Bouquet d'Or, Captain Hayward, Château à Clos Vougeot, Comte de Raimbaud, Dorothy Page-Roberts, Duchess of Bedford, Duke of Connaught, Duke of Wellington, Exquisite, Exposition de Brie, Gustave Grunerwald, Heinrich Schultheis, Horace Vernet, Joseph Hill, Lady Battersea, La France de '89, Lyon Rose, Mme. A. Carrière, Mme. Cusin, Mme. de Watteville, Mme. Gabriel Luizet, Mme. Hoste, Mme. Jules Grolez, Mme. Maurice de Luze, Mme. P. Euler, Mme. Victor Verdier, Marie van Houtte, Marquise Litta, Mrs. David Jardine, Mrs. E. Mawley, Mrs. Stewart Clark, Noella Nabonnand, Paul Ledé, Paul Neyron, Prince Camille de Rohan, Princesse Mertchersky, Senateur Vaisse, Soleil d'Or, Souvenir de S. A. Prince, Souvenir d'un Ami, Ulrich Brunner, Victor Hugo and Waltham Bride.

P.

THE FERN GARDEN.

THE WELSH POLYPODY.

(Polypodium vulgare var. cambricum.)

A Fern for the Window and Greenhouse.

As a relief to the eternal Aspidistra, it is a thousand pities that the lovers of foliage plants practically entirely ignore so pretty a native evergreen Fern as the Welsh Polypody, since it is not only absolutely hardy and defiant of frost, but retains its verdure in all its freshness right through the winter, only discarding its old fronds late in the following season when the new ones arise to replace them. Like the Aspidistra, too, its fronds, though thinner and more delicate-looking, are very tough and not easily damaged; and another point of similarity is that it thrives in a sunless window facing east or north, or in a shady conservatory where flowers languish for want of sun. All that is needed when a plant is obtained is to instal it in a shallow pan, well drained, in a compost mainly consisting of leaf-mould or fibrous peat, kept open by a liberal dash of coarse silver sand. The plant naturally—*i.e.*, the species to which it belongs, and the common form of which is seen in the hedge-banks, old walls, and in the forks of old trees—only grows in well-drained situations; often, indeed, under such circumstances that in dry seasons it may be seen quite shrivelled, a condition of affairs which is speedily rectified when rain comes, the fronds then freshening up as if nothing had happened. Since, however, under culture it is absurd to subject a Fern to such risks, the pan in question being well drained with plenty of crocks or broken pot pieces may with advantage be stood upon, not in, an earthenware saucer containing water, robust growth being thus induced and the risk of drought minimised. The Welsh Polypody, like the common form, sends up its fronds singly from a fleshy, creeping rootstock, and as this is always near or even on the surface, when installing the Fern its rootstock should not be buried deeply or at all, the thin, thready roots only being in the soil beneath.

The Welsh Polypody as a Basket Plant.

Another and a good way of obtaining a fine specimen is to instal it in a suspended wire basket, which should be well lined with living moss to retain the soil, the Fern being then planted as above. In this case the creeping rootstock will eventually find its way laterally through the moss and project its fronds in all directions, making a very handsome object provided it is not neglected as regards watering. The risk with suspended baskets, which admit of free evaporation all round, is always a drying out and a shrinkage of the contents, so that when water is applied it simply runs away without penetrating the ball or doing any good. In such an event the basket should be taken down and submerged in a bath or pail, according to its size, for at least an hour to permit of a thorough soaking. Such a need, however, must imply previous neglect; but, as I have said, this Fern is very accommodating, and under such circumstances will not irrecoverably shrivel and perish as many other Ferns and plants will do. Like all plants (Aspidistras excepted) grown in windows with one-sided lighting, the fronds will grow and display themselves to the best advantage towards the light. As the fronds rise and unfold they assume precisely that angle which enables them to catch the maximum amount of light. Give them a half turn during this development, and the partly unrolled frond will twist about and the balance of it follow the same rule, the inevitable result being a distorted ugly growth instead of a straight and natural one. The moral of this is that the Fern, or, indeed, other plant, should always be kept one way to the light, and if turned round, say, in the evening, to show its best face to visitors, it should be restored to its former position when they have gone. This seems to be a little thing, but it is one of the secrets of success in growing really pretty window plants. I use a label as a guide, keeping that on the window side or *vice versâ*, but always one way. In a top-lighted conservatory such a precaution is not so necessary, but even here I make it a rule, as far as possible, not to turn the plants about. Nature has not yet contrived a plant which revolves on its axis, and nothing will persuade cultivated plants to adapt themselves to constant revolutions such as I have indicated.

Varieties of the Welsh Polypody.

To return now to the Welsh Polypody in particular, I may mention that, beautiful as is the old form found long ago in Wales, it has since been surpassed by several other finds, on similar lines, in the Lake District. Thus we have P. v. cambricum Barrowii, a bolder and more erect form; P. v. c. Prestonii, with denser fronds; and P. v. c. Hadwinii, a fine feathery form, so that if space is available an agreeable variety of this special section may be grown. Finally, I may add that our common Polypody of the hedges has sported in a number of other ways, each variety lending itself to the same culture; so that quite a collection may be made in this species alone. Some have their fronds much divided. Such are P. v. pulcherrimum, P. v. semilacerum and the curiously pretty P. v. cornubiense or elegantissimum, well named; and some are prettily tasselled, such as P. v. cristatum, P. v. grandiceps Fox, P. v. g. Forster, P. v. g. Parker, all different, and P. v. bifido-multifidum, each of which forms a fine specimen with fair cultural care and merits a place of honour either as a window plant or for a cold conservatory, or even on the rockery in the open.

Chas. T. Druery, V.M.H., F.L.S.

SOCIETIES.

READING GARDENERS' ASSOCIATION.

The first fortnightly meeting of the new year took place in the Abbey Hall on Monday, January 24, when the recently elected chairman for 1910, Mr. T. Judd, presided over a good attendance of members. The minutes of the last meeting were read and confirmed, and several new members elected. Mr. T. Neve of The Gardens, Sindlesham House, was the lecturer for the evening, and his subject, "The Best Course to Adopt with an Old, Neglected

Orchard." Mr. Neve is one of the fathers of the association, and the benefit of his wide experience is always at the disposal of the members. On the present occasion he was very much at home with his subject, and after informing his audience that some of the trees under his care must be getting on for 100 years old, he produced some rods he had that day cut from one of these ancient trees that would have done credit to a young tree of a few years' standing. Mr. Neve gave the fullest information with regard to the methods he adopts in the rejuvenation of his trees, heading back, pruning, spurring and root-pruning being all dealt with in a thorough manner. At the conclusion of Mr. Neve's remarks a lengthy and most instructive debate took place, and the lecturer readily answered the many enquiries addressed to him. A hearty vote of thanks to Mr. Neve concluded the evening. The annual tea and entertainment for members and their friends has been fixed for Wednesday, February 16.

SALISBURY AND DISTRICT GARDENERS' ASSOCIATION.

THE usual fortnightly meeting was held on the 26th ult., Mr. T. Challis in the chair. The lecturer was Mr. F. Eames, Floral Nursery, Frome, who chose for his subject "Some Special Perennials." In the course of an interesting and instructive lecture he treated more particularly of the latest novelties in Phloxes, Heuchera, Delphiniums, Pæonies and Scabiosa, giving a list of the best varieties in each section. A most animated discussion followed, which was taken part in by a large number of members. On the motion of Mr. W. F. Tucker, seconded by Mr. C. G. Wyatt, a cordial vote of thanks was passed to Mr. Eames.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Plants for a tank (*B. Gordon*).—The water in your tank is not deep enough for Water Lilies, but you might do very well with Japanese and Siberian Irises. Place from 4 inches to 6 inches of soil on the bottom of the tank, and let it be covered with 2 inches or 3 inches of water. You may then plant Iris Kæmpferi varieties and I. sibirica. If you wish for a greater variety of plants, you can bring the soil to the surface of the water here and there and plant Primula japonica, Spiræa palmata, Senecio Clivorum and various Rushes. The common Periwinkle may be planted outside the edging, which will form a clothing in course of time. It would probably be advisable to remove the rockwork from the middle, if you can manage it without much trouble. Roses such as Tea Rambler, Dorothy Perkins or Kathleen would be suitable subjects to cover your balustrades with. Ivy would look very well, but it is doubtful whether it would cling satisfactorily to the cement, especially if the cement is new. If you prefer a subject other than Roses, you can try Jasminum nudiflorum. Turfing ought to be done at once; in fact, it would have been better done last autumn. If, however, you can get it finished by the middle of March, it will prove satisfactory.

Violet plants diseased in frame (*M., Sussex*).—The foliage of your plant is perfectly healthy, and there is no disease that we can discover on the roots. But the latter appear as if they had had a check from some cause or another. You say that a pipe runs through the frame; we presume a hot-water pipe. There is nothing more inimical to the growth of the Violet than hot-water pipes in the pit or frame in which they may be growing. Therefore we advise you to dispense with the use of this another year. Far better protect from frost by covering with litter or mats. Then again, we are inclined to think that perhaps too much soot has been added to the soil; we are led to this conclusion by the very dark colour of the soil and, we think, by a faint smell of soot. Soot when used in a fresh condition has a certain caustic quality, which makes it dangerous when too much is added to any soil. Our advice to you now is to keep the plants as cool as possible during the winter, protecting them only from severe frost, and we think you will yet obtain a fair supply of flowers in spring. We certainly think that cuttings taken next March and grown on through the summer should give excellent results the following autumn and winter. You will find that the plants will be hardier and give better results if grown in the open during summer than when grown in the shade.

Plants for rough garden soil (*Harold Church*).—You cannot do better than plant the site with Lilium tigrinum, L. speciosum in variety, together with Michaelmas Daisies, perennial Sunflowers, Phloxes, Sedum spectabile and other plants. Indeed, the better way to deal with the site would be to plant freely of Daffodils, Fritillarias, Lilies, Galtonias and other things in the ensuing autumn; and over these, or between them, Harpaliums, Michaelmas Daisies, Phloxes, Heleniums and similar plants, with Sedum spectabile and the Megaseas nearer the margin. You might also make free use of the common hardy British Ferns, Butcher's Broom, Foxgloves, Canterbury Bells and the Hollyhock, the majority of which might remain permanent and would increase in beauty from year to year.

TREES AND SHRUBS.

Shrubs for hot soils (*Perplexed, Highgate*).—Among the best shrubs for hot, dry soils are the Bladder Senna (Colutea arborescens) and C. cruenta, Atriplex Halimus (Sea Purslane), Berberis vulgaris (common Barberry), Caragana arborescens, Cytisus and Genistas of sorts, double-flowered Furze, Spartium junceum (Spanish Broom), Helianthemums (Sun Roses) in variety, Rhus Cotinus (Venetian Sumach) and double pink Bramble. Of creepers, or rather plants of a loose, rambling habit, that will serve to clothe a bank may be mentioned Lycium europæum (Box Thorn), Cotoneaster microphylla, C. horizontalis, Celastrus articulatus and Muehlenbeckia complexa.

Treatment of Yew hedges (*H. P. M.*).—The Yew possesses considerable recuperative power, and, provided your trees were in a healthy state, they could be safely cut back as soon as the worst of the winter is past, say, the end of February or early in March. As, however, we understand by your letter some of the trees are dead and others in a poor state, it appears to us that the planting of new ones is likely to give the greatest amount of satisfaction. Should you decide to retain any, they may be cut back as suggested by you, and at the same time a good mulch of loamy soil and manure will prove very helpful, as it is more than probable that the trees are suffering from lack of nourishment. A few good soakings of water during the summer are often of great assistance to old trees. The wild Clematis is very destructive to weaker-growing subjects if it is allowed to take entire possession of them; but yours must have been greatly neglected for the Clematis to get the upper hand of them in such a way.

Cutting a Privet hedge (*H. Brookes*).—You may cut your Privet hedge down about halfway at the end of March. The Quick hedge would be better left alone now and cut down well in twelve months' time. As a rule, a better Quick or Thorn hedge is formed by cutting the plants well down after they have once become established than if they are just clipped in the ordinary way. If, however, your hedge appears to start well and grows well during the summer, it may do if clipped in the ordinary way, keeping the top shortened.

Pruning shrubs (*Constant Reader*).—Spiræa ariæfolia should have any necessary pruning done immediately after flowering. At the same time, it does not need much pruning of any kind unless the head gets unduly crowded or it has a tendency to form an unsymmetrical specimen. In these cases the weak shoots may be thinned out or the straggling branches shortened back. Spiræas Anthony Waterer, Douglasii and nobleana all require one kind of treatment. These should be pruned in February, the old and weak shoots being thinned out and the remaining branches shortened back. This shortening of the branches should consist of reducing them to within 1 foot or 2 feet of the base, thus throwing the full energy of the plant into the production of stout young shoots, which will flower well. Spiræas arguta and prunifolia do not need much pruning, but what is required should be done immediately after flowering. It should be limited to the thinning out of weak shoots if too much crowded, and the shortening back of any straggling ones. Ozothamnus rosmarinifolius.—This shrub may suffer somewhat from the winter, and for this reason wait till the cold weather is past, when it will perhaps be necessary to shorten back some of the shoots, as the tops may be killed. Apart from this, we should not advise you to prune the Ozothamnus the first season after planting; indeed, all those concerning which you enquire should, the first season, be pruned more sparingly than when established. Cydonia Maulei does not need much pruning. If too crowded, the shoots should be thinned out directly after flowering. Philadelphus Rosace.—When established the oldest wood of this Philadelphus may be cut away altogether as soon as the flowers are past, but the first year we should not advise you to prune much. Ceanothuses of the late-flowering section should be pruned in February. In doing this the weak wood should be spurred back and the strongest of the previous year's shoots reduced to about half their length.

THE GREENHOUSE.

Chrysanthemum leaves for inspection (*W. E. D. G.*).—The whitish lines in the leaves of the Chrysanthemum are the work of the larvæ of the Marguerite fly. This fly is a small two-winged one, which lays its eggs on the leaves of Chrysanthemums, Marguerites and some wild plants belonging to the same family, and does very considerable damage by greatly reducing the effective leaf area as well as disfiguring the leaves. If the leaf is held up to the light, the pupa of the fly may now be seen in the leaf as a small, rather hard, whitish swelling. When the plants are not very numerous the best method of dealing with the pest is to squeeze the affected part of the leaf between finger and thumb, and so destroy the grub. It is said that some of the nicotine preparations penetrate the epidermal cells and, reaching the larvæ, kill them. In any case, one of these or paraffin emulsion will assist in keeping the flies away from the plants.

Palms injured (*Wanderer*).—We are afraid your Palm has been frost-bitten. The best thing to do to bring it round would be to give it to a nurseryman to nurse under glass for a few months. If this is not possible, the best position for it is in the window of a warm room, taking it from the window into the room when the nights are cold. The gardener is quite right in keeping the plant on the dry side.

Information about Cannas and Salvias (*H. E. B.*).—As you have no glass accommodation except a pit, it will be impossible to raise the Cannas and Salvias from seed so that they will be large enough to be effective at bedding-out time. Your better plan will be to purchase at the proper season from one of the several advertisers in THE GARDEN who make a speciality of bedding-out plants. They can at that time be bought cheaply and can be relied upon to give satisfaction. The Maize can be sown out of doors, but for bedding purposes we should prefer to sow the seed in pots towards the end of March and place in your pit, as then the plants will be in good condition at bedding-out time.

Culture of Daphne indica (*G. B. P.*).—By cool greenhouse we presume that you mean a structure with a minimum winter temperature of 45° or thereabouts. As your plant continues to make wood but does not flower, it may be that the growth it makes is too weak for the production of blossoms. This may arise from two causes, either that the roots are in a poor state or that the pot is so full of roots that the plant is starved. In either case it should be repotted in March, a very suitable compost being equal parts of good loam and peat, with a liberal sprinkling of silver sand, the whole being broken up and thoroughly mixed together but not sifted. When the plant is turned out of its pot you will be enabled to see the condition of the roots, and upon this the size of the pot will depend. If the roots are in a poor state, it is probable that a pot of the same size will be large enough; but if they are numerous and healthy, the pot selected should be sufficiently wide to allow of about 1 inch of fresh soil between the old ball of earth and the side of the pot. The soil should be pressed down evenly and firmly. It is very essential that the new pot be quite clean and effectually drained. Kept in the greenhouse and shaded from bright sunshine, the roots will soon take possession of the new soil. Till this happens, especial care must be taken not to over-water at the roots, but an occasional syringing will be helpful. About midsummer or a little later this Daphne may be stood out of doors in order to thoroughly ripen the wood. It must not be allowed to get dry at any time. If you follow these instructions we feel confident that your plant will flower another year.

THE GARDEN.

No. 1995.—Vol. LXXIV. February 12, 1910

CONTENTS.

National Sweet Pea Society's Annual .. 73
Notes of the Week
Forthcoming event .. 74
South-Eastern Agricultural College .. 74
French gardening exhibition 74
Société française d'horticulture de Londres 74
Correspondence
Calceolaria integrifolia 75
Gardening of the Week
For the South and South Midlands .. 75
For the North and North Midlands .. 75
Sweet Pea chat 76
Sweet Peas flowering over a long period .. 76
The germination of Sweet Peas 77
Methods of growing Sweet Peas for garden decoration 77
Sweet Pea Mrs Charles Foster as a pot plant 77
Coloured Plate
Some of the newer Sweet Peas 78
Autumn-sown Sweet Peas at Ramsey Abbey 78
Gathering, packing and exhibiting Sweet Peas 78
Sweet Peas growing on fish-netting round fruit bushes.. 79
Gardening for Beginners
Garden work week by week 80
A novel method of raising Sweet Peas 80
Lifting and replanting fruit trees 81
Hints on laying turf .. 81
The Town Garden .. 81
Sweet Peas at Wem, Shropshire 82
Kitchen Garden
Early Peas for amateurs 82
Early Turnips for amateurs 83
Sugar Peas as a summer vegetable .. 83
Finocchio, or Florence Fennel, as a vegetable 83
Tomato Muirtown Seedling 83
Fruit Garden
On the care and management of orchards.—II... .. 83
Insect Friends and Foes 84
Books 84

ILLUSTRATIONS.

Sweet Peas 11 feet high 74
Sweet Pea Kathleen MacGowan 76
Sweet Pea Mrs. Charles Foster 77
Some of the newer Sweet Peas .. .. .. Coloured plate
Autumn-sown Sweet Peas 78
Sweet Peas growing on fish-netting 79
A novel method of raising Sweet Peas 80
An Apricot tree that was making too vigorous growth 81
Two types of Sweet Pea flowers 82

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

NATIONAL SWEET PEA SOCIETY'S ANNUAL.

LIKE the society whose official organ this Annual is, it grows larger and more comprehensive every year, and, like the Sweet Pea itself, we have come to regard it as a hardy annual of the first order. This year it is a decided advance on that issued by the society in any previous year, and Sweet Pea lovers will find a vast amount of interesting information within its pages. We are pleased to see an excellent portrait of the genial president, N. N. Sherwood, Esq., V.M.H., forming the frontispiece, and the society is fortunate in securing such an enthusiastic horticulturist for its president during 1910. The first article in the Annual is descriptive of a two days' Sweet Pea Carnival held in Bozeman, the county town of Gallatin County, Montana, U.S.A. In this district the Sweet Pea is said to flourish better than any other florist's flower. This year no fewer than seventy-six rigs and floats, profusely decorated with Sweet Peas, formed a procession, and the illustrations in the Annual give one some idea of the extent to which the flower is grown in that part of the United States.

The two papers read respectively by Messrs. W. Cuthbertson and W. J. Unwin at the conference of members, held at the Hotel Windsor on December 10 last, are printed in full, together with the discussions that ensued, but we have previously, at the time of the conference, referred at length to these.

The notes by Mr. C. Foster on the Reading trials during 1909 are full of interest and provide much food for meditation. The total number of stocks of Sweet Peas sent for trial was 350, and of these no fewer than 261 were novelty stocks. Only one variety failed to germinate, but the lavender and mauve varieties showed the weakest germinative power, a fact that many growers will doubtless have noticed in their own gardens. Speaking of the cold north-east winds experienced about the middle of June, it is interesting to note that Mr. Foster is "inclined to think that what is so often termed 'streak' in Sweet Peas is merely damaged protoplasm, followed by parasitic growths."

In the audit prepared by the hon. secretary of the London show, held in July last, we find that in the thirty-five classes taken for the purpose of the audit there were 367 exhibits comprising no fewer than 2,746 bunches and 206 varieties. In 1903 twenty-eight classes were taken for the audit, there being at that exhibition 128 exhibits comprising 991 bunches and 90 varieties. It will be seen by these figures what an enormous advance has been made in the raising of new varieties and the growing and exhibiting of Sweet Peas during the last six years. At last year's show the variety Helen Lewis headed the list, this being shown no fewer than 148 times. This is followed by Etta Dyke, 138; Evelyn Hemus, 114; Mrs. Hardcastle Sykes, 95; Frank Dolby, 94; and Countess Spencer, 90. It will be noticed that none of the first half-dozen in the audit is what we may regard as a novelty. In the first prize audit Helen Lewis was also first, followed in the order given by Frank Dolby, Mrs. Hardcastle Sykes, Etta Dyke, John Ingman and Evelyn Hemus, these being only the first half-dozen. Helen Lewis has been considerably improved by some growers since it was first put on the market, and this doubtless accounts for its high position at last year's show.

In the election of varieties by members of the society 156 election papers were sent in, and the following were the first dozen given as the most popular sorts: Helen Lewis, 105 votes; Etta Dyke, 101; Countess Spencer, 99; Mrs. Hardcastle Sykes, 97; John Ingman, 81; Evelyn Hemus, 78; The King, 69; Constance Oliver, 67; Mrs. Henry Bell, 67; Frank Dolby, 64; Mrs. A. Ireland, 60; and Clara Curtis, 53.

Several references are made by writers in the Annual to that mysterious disease of Sweet Peas known as "streak"; but so far little seems to be known about it beyond the fact that it has a most disastrous effect on the plants. Last summer it was undoubtedly much more prevalent than it had been in any previous year, probably due to the bad weather, but unfortunately, since its appearance some five years ago, it has been steadily increasing, and it is consoling to know that the society has at last decided to fully investigate the matter. Mr. D. Reeves, Cefu Glas House, Bridgend, suggests that "Le Fruitier" should be used as a top-dressing for Sweet Peas instead of superphosphate. Last year in the gardens at Bridgend seven rows of Sweet Peas were grown, and six were very badly attacked by streak. The seventh escaped, and it was this row which had been treated with "Le Fruitier" at the rate of 4oz. to the square yard instead of the superphosphate which had been used for the others. As Mr. Reeves states, the freedom from disease may not have been due to the use of this manure, but in any case the matter is worth further investigation.

The society's Official Catalogue of Sweet Peas is included in the Annual, which can be obtained by non-members, post free 2s., from the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford. The London exhibition this year is to be held in the Royal Horticultural Society's Hall, Vincent Square, Westminster, on July 12 and 13, and schedules can be obtained from the hon. secretary.

NOTES OF THE WEEK.

FORTHCOMING EVENT.

**** *The dates given below are those supplied by the respective Secretaries.*

February 22.—Horticultural Club. Annual Meeting at 5 p.m., Dinner at 6 p.m., at the Hotel Windsor, Victoria Street, Westminster.

South-Eastern Agricultural College.—At a meeting of the governors of the South-Eastern Agricultural College (County Councils of Kent and Surrey), Wye, held at Caxton House, Westminster, on Monday, January 31, the Right Hon. Lord Ashcombe (chairman) presiding, it was unanimously resolved that the college buildings should be considerably extended. At the present time, owing to the number of students, the existing buildings are inadequate. The proposed extension, which will be ready for the next session in October, will provide extra rooms for in-college students and, at the same time, largely increase the teaching and research accommodation.

National Dahlia Society.—I desire to inform you that the National Dahlia Society has arranged to hold a conference on Dahlias at Carr's Restaurant, 264, Strand, on Friday, March 4, at 6 p.m. The following papers will be read and discussion invited: "Dahlias for Garden Decoration," by George Gordon, Esq., V.M.H.; "Growing Dahlias for Exhibition," by J. Stredwick, Esq.; "Methods of Exhibiting Dahlias," by J. B. Riding, Esq. All members and their friends are invited to attend. May I also inform you that in future all subscriptions should be made payable to the treasurer, National Dahlia Society, and forwarded to me as under, which is now the only official address of the society.—E. F. HAWES, *Hon. Secretary, Royal Botanic Gardens, Regent's Park.*

French gardening exhibition.—With the object of giving still greater publicity to the advantages of intensive cultivation, an exhibition of French gardening is to be held at the Royal Botanic Society's Gardens at Regent's Park. Active preparations are now in progress for exhibiting and demonstrating every aspect of the close and scientific cultivation of the soil. The exhibition will take place in July, though the exact date is not yet definitely settled. Actual "French" gardens will be shown in operation, and in them will be demonstrated the possibility of making every inch of soil fruitful. The ways in which the soil is fertilised and impoverishment prevented under this system will also be the subject of demonstration. As well as actual gardens in working order, with the gardeners at work, there will be frequent lectures on the theory and practice of intensive culture, and, of course, exhibits of the straw mats, forcing frames, cloches—the inventions and once the jealously guarded secrets of the market gardeners of Paris. It is hoped that a good many of the proprietors of "French" gardens already established in England will be numbered among the exhibitors. As a practical inducement for them to do their best, a number of valuable prizes will be offered for the best specimens of their produce.

Societe francaise d'horticulture de Londres.—On Saturday evening, the 29th ult., the members and friends of the above society met at the Café Royal, Regent Street, to celebrate the twenty-first anniversary of the foundation of the society. M. Philippe de Vilmorin was to have presided, but, owing to the floods in Paris, was unable to leave home, and consequently M. de Lalande, the Consul-General of France, occupied the chair in his stead. The usual loyal toasts having been honoured, Sir Albert K. Rollit, in a splendid speech full of humour and kindly feeling, expressed his pleasure at being present, and wished the society continued success in its good work of promoting goodwill between English and Continental horticulturists. The chairman proposed "The Société française d'horticulture de Londres," and, while regretting the unavoidable absence of M. de Vilmorin, he was glad to be able to render the society service in occupying the chair, for it afforded him an opportunity of publicly thanking Mr. Schneider for all his good work on behalf of his young fellow-countrymen. Mr. George Schneider replied. After twenty-one years' labour in the cause, he was sure every one of those connected with the society would rejoice at their large measure of success. They were largely indebted to their English friends who found places for the young men in their nurseries, and who, he was sure, much appreciated the opportunities. He would ask them to drink to the success of "English Horticulture," and coupled the name of Mr. Harry J. Veitch with the toast. Mr. H. J. Veitch replied. Other toasts were "Officers of the Society," proposed by Mr. H. B. May, responded to by M. Guillond; "Past Presidents," to which Mr. Harman Payne replied; "The Press": and "The Chairman." During the evening a collection was made on behalf of the Lord Mayor's Fund for the sufferers by the floods in France, and the sum of £100 1s. 6d. was announced as the result. Great enthusiasm was aroused when the chairman stated that the King had sent 1,000 guineas to the fund and the Queen £1,000. The whole of the proceedings were most brilliant and enjoyable, and constitute quite a record for the society. There was a good vocal and instrumental programme during the intervals between the speeches, and, in concluding, the chairman thanked M. Ripard for the elegant manner in which he had carried out the floral decorations.

Scottish Horticultural Association.—The ordinary monthly meeting of the Scottish Horticultural Association was held in the Goold Hall, St. Andrew Square, Edinburgh, on the evening of February 1st. After the usual preliminary business, Mr. James Whytock, Dalkeith Palace Gardens, gave his presidental address on assuming office for the year. The subject he had selected dealt mainly with the question of the beneficial effects of frost on the soil. Mr. Whytock is a strenuous advocate of the autumn cultivation of land, so that the frost may have free access to pulverise it and free it from pests, and his address was a closely reasoned advocacy of the good derived from the access of frost to the soil. He strongly advocated the practice he recommended, and held that a gardener who did not follow it was failing to take advantage of what had proved to be a gain to horticulture. An interesting discussion followed, in which the different speakers agreed sympathetically, as a whole, with the position stated by Mr. Whytock, who was heartily thanked for his address.

SWEET PEAS 11 FEET HIGH IN MR. E. VIPAN'S GARDEN, NORTHAMPTONSHIRE.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet Peas in Stiblington Hall Gardens, Northamptonshire.—The accompanying illustration is from a photograph sent us by Mr. E. Vipan, Stiblington Hall, Wansford, Northamptonshire, and represents Sweet Peas growing in the gardens there. Mr. Vipan writes: "The seed was obtained from Henry Eckford and was sown the middle of January under glass. The plants were put out the first week in April. They began to bloom the second week in June and flowered until the frost killed them on November 9. The photograph was taken on August 16. The sticks are 11 feet above the ground, but the plants eventually grew over 12 feet high."

Euphorbia Wulfenii.—Fine though this plant undoubtedly is in certain positions, it has been considerably over-rated, and when old and of large size is not so pleasing as one would expect. I have seen it growing under various conditions and in different districts, and to me it has seemed, in general, coarse. I agree with the opinion of those who think it is best when in a small state, say, about 18 inches or 24 inches high, and planted on rockwork. It is best as a wild garden plant when it is of large size, and in some of the woods where there are open spaces would look well. It appears to be hardy throughout the United Kingdom, and is a plant which makes a better photograph than its appearance would lead one to expect.—S. ARNOTT.

Practical gardening for women in America.—The very interesting notes that have been appearing recently in THE GARDEN regarding commercial gardening for

women and others have led me to give a little of my experience of over fifteen years as a practical grower. My home is near one of the great industrial cities of America, and yet with this great market within easy reach I have only one foot upon the great ladder of prosperity. Here sales are not hard to make, but men are hard to keep, as the factories and mills offer higher wages and the still greater inducement of shorter hours than a commercial beginner can give. At least five gardeners have left me without notice to hire out at a factory near, so I have long since taken up only what work I can personally oversee. I am what people call a "hard worker," and have what few women in America possess to such a degree—an enduring constitution. I can withstand almost any hardship, and am often, in my work of collecting native plants, called upon to walk many miles over rough mountains in the soaking rain. Choice seedlings I always prick out with my own hands, and am very proficient in the use of the hoe. I often work in my packing-room a greater part of the night, and always oversee my city selling-place. If great hardships can be overcome, I believe there is no greater joy on earth than a daily life spent in a garden, but it can only reach its attainment by wholesouled personal effort.—(Mrs.) ELSIE MCTATE, *Turtle Creek, Pa., U.S.A.*

Calceolaria integrifolia.—I was glad to see a note on this handsome Calceolaria on page 27. Many writers, some of whom are horticultural experts, express the opinion that it is too tender for culture in the open air, but in the South-West it is practically hardy. As Mr. Rich states, numbers of plants grown at Elfordleigh endured 18° of frost without being killed. All the foliage was browned, but in the spring green buds were put forth all along the stems, and by midsummer the plants were in full leaf again and flowered well in July. This frost, which was followed by a very sunny day, killed shrubby Veronicas, Cytisus racemosus, Cordyline australis and Olearia stellulata, which proves that Calceolaria integrifolia is far hardier than is supposed. What the history of this Calceolaria is it is difficult to determine, but it has apparently been growing at Kingswear, at the mouth of the river Dart, for generations. It has slowly spread through Devon and Cornwall, but I believe that all the new colonies were derived originally from Kingswear. Some years ago I sent flowers to Mr. Burbidge at Trinity College Botanic Gardens, asking him if he could tell me the name, but he declined to commit himself. I then sent flowers to Kew, and was informed that it was Calceolaria integrifolia. A few days later I received a letter from Kew saying that they found they had not got it in their collection, and asking for cuttings, which I forwarded. It is a very ornamental plant and is at its best in July, when it is a sheet of gold, and after the zenith of its beauty is past, it continues to bloom more sparsely until November, so that its season of attractiveness is a lengthened one. It will grow to a height and diameter of 6 feet, and in the South-West may be considered one of the best of the summer-flowering shrubs. It is absolutely indifferent to soil and will grow in anything, retaining its health in the driest and stoniest of sites. A line of this Calceolaria has been growing at Kingswear for many years in stony soil, at the top of a retaining wall over which Mesembryanthemums hang. Immediately behind the Calceolarias is a high hedge of Laurustinus. How the Calceolarias manage to exist it is difficult to imagine, for, as the wall faces due south, the soil in summer is dust-dry and must be full of the roots of the Laurustinus and Mesembryanthemum. However, although they make but little growth, the Calceolarias endure bravely year after year and show no signs of dying, and every July are covered with flowers. In rich and deep compost this Calceolaria makes vigorous growth and soon forms a large and shapely bush.—WYNDHAM FITZHERBERT.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

LATE PEACHES.—All trees in the late houses must be attended to at once. The buds are swelling rapidly, and the work must be got out of hand without delay. Give the house and trees a thorough cleansing and the borders a liberal top-dressing.

Muscat Vines.—The Vines of these Grapes that are to produce the main crop should now be started. The rods must be well cleaned and washed, the borders renovated and the house closed. A night temperature of 50° is quite sufficient to commence with.

Early Vines.—Attend to the stopping and tying of all early started Vines. Airing is a very important point now; just a little air can be admitted at the top. By no means allow any draught. Plenty of moisture is required till the flowers begin to open, when the house must be kept drier to assist fertilisation.

Pot Figs that were started early and are making good growth should have the shoots stopped. Pinch out the point of the shoot at the fourth or fifth leaf. This will keep the trees within proper bounds and assist the fruits to swell.

THE KITCHEN GARDEN.

Onions.—This is an important crop in every garden, and the first opportunity that presents itself must be taken advantage of. Let the ground be in good, dry, working condition before attempting operations, for it is much better to wait a little longer to have the ground fit than to sow when at all wet and sticky. Well tread and rake level, drawing the drills 12 inches apart, and sow thinly.

Turnips and Carrots.—On a warm border sow Early Milan Turnip and Early Nantes Carrot 12 inches apart in the rows.

Cabbages.—The autumn-planted beds will greatly benefit if given a light hoeing when the weather is dry. Plants that have been standing in the nursery beds during the winter may now be planted out in their permanent quarters.

Cauliflowers and Lettuces sown in boxes in heat, as advised earlier, will require to be transplanted into other boxes, keeping them as close to the glass as possible to obtain sturdy plants. This applies also to Onions and Leeks. Artichokes, both Jerusalem and Chinese, may be planted now.

BEDDING PLANTS UNDER GLASS.

Dahlias that have been stored may be placed in boxes and put in a warm vinery or Peach-house to produce cuttings. They will not require much soil; a little leaf-mould shaken in among the roots is quite sufficient. It is undoubtedly the best plan to raise plants from cuttings annually in preference to growing on the old roots. As soon as the cuttings are 2 inches or 3 inches long they should be taken off with a small portion of heel attached, dibbled into pots or boxes and placed in heat. If the pots can be plunged in a slight bottom-heat, so much the better, as they root quicker.

Begonias that are required for summer bedding should now be started. Lay the roots out in shallow boxes in leaf-soil, place them in a warm fruit-house and keep moist. As soon as growth commences pot them, using a mixture of loam, leaf-soil, rotten manure and a little sand. Seed can now be sown of Dianthus, Gaillardias, Pentstemons, Pansies, Schizanthus, Coreopsis grandiflora and similar plants in pots or boxes under glass.

WALL GARDENING.

Much may be done in the way of beautifying old and unsightly walls; there is such an excellent selection of plants to choose from suitable for this work. Undoubtedly autumn is the best time for planting, yet good results can be obtained for the coming season by planting at the end of February or the beginning of March. One finds in many old walls that, after taking off the top, the under part is hollow. When this occurs so much the better, as it gives a better soil capacity, and in all vacancies soil should be well rammed in. A stiff loam, leaf-soil and mortar rubble well mixed together makes a splendid rooting material for the majority of plants. The best plan is to take off the top, fill in the soil, put the various plants in position, and put the top back again as near as possible, so working the whole thing as one goes along. Regarding the sides of the wall, small places can be made to get sufficient soil in. Put in the plants with the stones to fill up the hole made. A selection of suitable plants will be given next week. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

LOBELIA.—It is quite easy to raise large numbers of this useful edging plant from seed sown at the present time; and where entire uniformity of height and colour is not demanded, no better method could be found. Where, however, it is essential to have the one shade, and especially where any formal carpeting is carried out, cuttings or division of the plants must be the method pursued in raising the requisite stock. The beautiful Waverley Blue, said to have been raised in the city gardens at Edinburgh, is, perhaps, one of the best varieties of dwarf Lobelia ever sent out. It winters better than any other sort that I am acquainted with, and if the plants are divided just now into small pieces, and these dibbled into boxes of fresh soil, fine plants will be had for the end of May. Where stock is limited, this variety can be kept a little longer in heat than is usually considered necessary, the plants again divided and transplanted to boxes of fresh soil. When dividing the plants just now, some of the strongest should be selected for pots, as few varieties can approach Waverley Blue for pot culture. Pot up into 3-inch pots, and pinch once or twice to get nice bushy plants. Eventually transfer to 5-inch pots, and when these are full of roots feed gently with weak liquid manure. If kept in a cool house or frame, these plants will bloom splendidly for several months.

Miscellaneous Plants.—Cuttings of Verbenas, Ageratums, Gazanias, Iresines, &c., must be inserted now whenever ready. The best results are usually had by dibbling closely together into 4-inch pots. When rooted transplant into boxes. I always think this produces much finer plants than if the cuttings are placed into boxes at first. Of course, it is a little more trouble, but it eventually pays. Sow East Lothian Stocks, Dianthus Heddewigii, Violas, Pansies, &c. Might I say that the single-flowered Dianthus Heddewigii is more suitable for Northern gardens than the double form. The blooms are large and brilliant, and are produced in great profusion. Last autumn, in Dumfriesshire, I saw a bed of Sutton's strain that was simply splendid. Early Chrysanthemums will now be sending up numerous cuttings, which should be secured when 3 inches or 4 inches long. These, too, do best if rooted in pots and then transplanted to boxes or frames.

Dahlias.—Stored roots of these should now be placed in heat, so as to obtain good early cuttings. Where only a few plants are wanted, and those for garden decoration, I find that division, after growth has started, is the easiest and most satisfactory method of raising stock. When the shoots are about 3 inches long is a good time to divide and pot up the tubers. Use a sharp knife,

and any portions of the tubers that threaten to decay should be cut clean away. Very good single and decorative Dahlias can be raised from seeds sown at this time in brisk heat. A good strain should be obtained, as it is quite as easy to grow good flowers as poor ones.

Late Chrysanthemums. — Pot off the later batches of these and set in quite a cool house or pit near the glass. It is too early as yet to trust them in cold frames. Keep a sharp look-out for green fly, which so often attacks the points of the young plants. Vaporising at intervals of three weeks is the best method for keeping these and other plants clean.

Tuberous Begonias.—Bulbs of these, if required for early flowering, should now be started. Use very light compost and pots only large enough to admit the bulbs freely. Pot very lightly; indeed, two or three sharp taps on the bench is all the firming that is necessary. Merely cover the tubers with soil, set in a moist, genial atmosphere, and shade from all sunshine.

Achimenes.—These beautiful stove plants are somewhat neglected nowadays, which is rather a pity, as they certainly lend themselves to a very effective display in their season. The bulbs should now be potted up, using a mixture of sweet leaf-mould and sand. If placed in 5-inch pots they can be transferred to larger ones and more substantial compost after they are well started.

C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

ONE PLANT OF SWEET PEA KATHLEEN MACGOWAN TWELVE MONTHS AFTER THE SEED WAS SOWN.

SWEET PEA CHAT.

THE BEST TWELVE SWEET PEAS.

I HAVE received an order from the Editor to give the names and descriptions of the best twelve varieties in cultivation for exhibition, and I must candidly confess that I am by no means enamoured of the task. The laws of the Medes and the Persians are supposed to have been terrible things, but to me they have no significance beside the order of my Editor. With him it is a case of "He who must be obeyed," if one may be permitted to revise a distinguished novelist; so here goes for the task. On second thoughts, perhaps I shall be safer if I add a little more to my preface. There is no such thing as a best dozen; a second set equally as good could be compiled with the utmost ease, and, if necessary, a third set too; and the three collections, grown by such giants as Stevenson, Jones and Malcolm, would fight hard for the premier position on the show board, and harder still for the unanimous appreciation of the Sweet Pea loving and growing public. It is clear, therefore, that the dozen that will be selected here are excellent, but I am, naturally, far too modest to claim them as the very best.

In view of the fact that the stocks of several of the finest varieties are running low, it will be my endeavour to give an alternative variety in each colour, so that should one, unhappily, be unprocurable, the grower may safely fall back upon another that is similar. Starting with cream or primrose, the yellow of those whose eyesight is abnormal, one cannot get away from Clara Curtis, and no second can be suggested. Unwin's is indisputably the finest strain, and the preference should be given to it; in the event of Unwin's stock being exhausted, procure the same variety from any other source of real repute, and it is probable that there will be little at which to cavil. As a white Etta Dyke stands so supreme that one scarcely dare venture to add a second name; but, taking the dreadful risk, let the reserve be Nora Unwin, which in some strains is equal to Etta Dyke, and, in the estimation of many excellent judges, superior.

A sunproof crimson is an imperative necessity, and it will not be difficult to procure, for nearly all the leading specialists have a splendid strain of King Edward Spencer, and therein is the sunproof flower that is desired. There is no need to mention names, for what cannot be found among the many advertisements in this issue can be sought for in the catalogues. It is quite certain that someone will grumble at the inclusion of Nancy Perkin or Earl Spencer; the names are not associated to convey the impression that the varieties are identical, for I do not consider that they are, but as alternatives. The grumble will be on the score of difficulty in purchasing seeds, but they can be got, and no trouble should be spared in the endeavour to do so.

There are now so many beautiful lavenders that this is one of the most worrying to decide upon, but I will plump for Asta Ohn or Masterpiece, between which there is not a vast amount of difference, and both are tip-top flowers for the show arena. An indispensable variety is Mrs. A. Ireland, and, fortunately, it is readily procurable; but in the event of trouble Apple Blossom Spencer can be taken in its stead—the basal colour is distinct, otherwise the plants are equally vigorous, floriferous and persistent. Alas! trouble has already been my lot because I said that Evelyn Hemus had not lived up to its reputation in 1909, but I still hang on to my opinion, even though it compel me to be so ungallant as to differ from a lady. Given favourable weather I should put it in front of Mrs. C. W. Breadmore, notwithstanding the fact that the latter is larger, since it is the more refined of the two and has not the wicked habit of throwing double standards. For orange we will choose between Helen Lewis and Maggie Stark, the latter being undoubtedly the better in these days of degenerated Helen Lewis, and especially so in the form that Maggie Stark has been shown by its raisers.

Necessity will compel us to have either Countess Spencer or Mrs. Hardcastle Sykes, choosing the richer-coloured strain of the latter if it can be had under this or other name. As a very deep-hued variety decide upon Black Knight Spencer, as it is so rich in appearance; but failing this, take Othello Spencer and be thankful that you have got it. Also strong in shade, superb in form and large in size are The Marquis and Prince of Asturias, either of which will serve its grower a good turn if staged in perfect condition. To finish we must have a brilliant colour, and we find it in Marjorie Willis or Marie Corelli; both are rich, glowing rose and most attractively waved.

There are the dozen. I wait in fear and trepidation for the alternative lists which will pour in upon the Editor by a score of posts immediately after publication. However, his is the fault and his must be the vengeance.

SPENCER.

[We hope those who think they can compile a better dozen than those named by Spencer will send the list for publication.—ED.]

SWEET PEAS FLOWERING OVER A LONG PERIOD.

ONE feature about Sweet Peas which has assisted in making them such universal favourites is their long season of flowering. Under good conditions and given careful attention in the way of cutting off seed-pods, watering and feeding, plants may be induced to flower for four months or even longer. The accompanying illustration is from a photograph kindly sent us by Mr. T. Stevenson, Woburn Place Gardens, Addlestone, whose excellent article on exhibiting Sweet Peas appears on another page. The variety shown in the illustration is Kathleen MacGowan. The seed was sown on October 8, 1908, and the photograph was taken on October 3, 1909, nearly a year after the seed was sown. There is only one plant in the clump, and the branching habit of the Sweet Pea is clearly shown. The plant was growing between fruit trees, so that it cannot be regarded as having had any special attention.

THE GERMINATION OF SWEET PEAS.

BELOW is a return showing the germination of the Sweet Peas sown by me on January 29, 1909. The pots were not exactly the same size, and I only put in seeds which seemed to me to be the best in the packet, which accounts for the variation in numbers sown. All the seeds were in similar soil and at the same depth, namely, 1 inch, as my adjusted dibble was used in each case. The pots were kept in the 45° (approximate) greenhouse till I thought all had germinated, and then, on February 26, I removed them to a cold frame. The return may interest other readers, though the season was not favourable for Sweet Peas.

Number of Seeds.	Name.	First appearance above ground.	Number of Plants Showing on February 15	20	21	22	23
12	Helen Pierce	Feb. 10	11	11	11	11	11
12	Clara Curtis	,, 10	11	12	12	12	12
8	Evelyn Hemus	,, 11	4	6	6	6	6
5	Mrs. Routzahn Spencer	,, 11	5	5	5	5	5
12	Frank Dolby	,, 11	5	6	8	11	11
8	Phenomenal	,, 12	5	7	8	8	8
8	Paradise	,, 12	5	7	8	8	8
10	George Herbert	,, 12	2	4	8	9	10
12	King Edward VII.	,, 12	3	6	8	11	11
8	Lord Nelson	,, 12	4	5	7	7	8
12	Etta Dyke	,, 12	5	9	9	9	11
8	Sutton's Queen	,, 13	2	8	8	8	8
12	Queen Alexandra	,, 13	2	3	10	11	11
12	Helen Lewis	,, 15	1	1	4	8	12
9	Mrs. H. Sykes	,, 16	—	3	5	6	9
12	Lady Grizel Hamilton	,, 19	—	2	3	4	12
12	Black Knight	,, 20	—	1	2	7	12
9	Nora Unwin	,, 21	—	—	2	6	9
8	Mrs. Collier	,, 22	—	—	—	1	7

RYDER'S SPENCERS.

			18	20	22	23	26
2	Mrs. A. Spencer (S.)	Feb. 18	1	—	—	—	—
2	Mrs. Sankey (S.)	,, 20	—	1	2	2	2
2	Lovely (S.)	,, 20	—	1	2	2	2
2	Captain of the Blues (S.)	,, 22	—	—	1	2	2
2	Asta Ohn (S.) *	,, 26	—	—	—	—	2
2	Beatrice (S.) *	,, 26	—	—	—	—	2

* I did not notice that these two Peas had come up until February 26, when I removed the whole lot into a cold frame.

A S.E. SUBURBAN AMATEUR AND F.R.H.S.

METHODS OF GROWING SWEET PEAS FOR GARDEN DECORATION.

THERE are many ways of growing Sweet Peas for garden decoration. Many an ugly building or fence can be hidden by Sweet Peas and made to look like a bank of flowers. One of the best ways of making a display of Sweet Peas in the flower garden is to have arches over the walks. Those offered by Robert Sydenham, Limited, are splendid for the purpose. The height of these arches should be not less than 6½ feet in the centre and, to get a good effect, not less than 3 feet long and a little wider than the walk. Supposing these arches to be 3 feet long, I would advise planting about three plants each side of the arch, taking up about four or five shoots to each plant. Keep most of the side shoots picked out, leaving just enough to cover the arch, so as to have bloom all the way up. When these shoots are 3 feet or 4 feet high, let three or four more go up from the bottom, and again, when the first shoots reach the top of the arch, run up three or four more to each plant, but never allow them to become too crowded. If the operation of running up fresh shoots is continued as the earlier ones reach the top, and seed is not allowed to form, these arches will make a good display all through the summer and autumn.

If early plants raised in pots can be planted out, they will commence to bloom about the end of May, and continue to do so until stopped by frost or a very wet autumn. Of course, we must select our colours very carefully to get the best effect. I do not believe in mixing colours too much. A lovely arch could be made with Clara Curtis and Countess Spencer, planting one of the former and two of the latter each side and allowing the shoots to cross each other, so that the two varieties get mixed. If an arch was planted with Audrey Crier, we should be sure to get a good effect, as this variety always throws about 50 per cent. of true Audrey Crier, 20 or 30 per cent. of Mrs. H. Sykes and 20 per cent. of Helen Lewis, with an occasional white or two. Plant five or six plants instead of three and you will be sure of variety. A lovely effect can also be obtained by using Mrs. H. Sykes, Clara Curtis and Frank Dolby. King Edward Spencer and Etta Dyke would go well together.

Supposing we have an ugly wall or fence to cover, a good support for the plants would be some very large-mesh wire-netting. Hazel sticks put in a few inches from the wall would answer the same purpose, or the wires recommended for the arches would do. A few stakes driven into the ground and a wire run along just above the ground with strings tied to it, and run up and tied to another wire at the top, would also answer, but would want more looking after in the way of tying than they would on the netting or sticks.

In many gardens we see the fruit bushes covered in with wire-netting. This we can make to look beautiful with Sweet Peas by putting in a few plants or seeds outside the netting and giving them an occasional tie.

Whichever way we decide to use Sweet Peas for garden decoration we must choose our colours very carefully, especially if they are to be grown near other flowers. Evelyn Hemus is a lovely Sweet Pea for garden decoration, but should only be used with lavenders, pale mauves or pale pinks. Olive Ruffell is a lovely colour, but as this gives a good many of John Ingman, it should be planted rather thicker than the others and the plants of John Ingman pulled out. Zarina is a beautiful variety, and beside a primrose would make a lovely effect. Menie Christie and Clara Curtis would also go well together. Self colours generally produce the best decorative effect, but Helen Pierce can be used with pinks, whites or creams. Many, perhaps, would prefer to grow their Sweet Peas in the herbaceous borders. Where the borders are planted with large groups of flowers of the same colour, Sweet Peas make a lovely background. For instance, suppose we have a large bed of Anchusa italica, clumps of Countess Spencer and Zarina would look splendid; and if we had a bed of red Salvia, clumps of cream or white varieties would produce a good effect. Growers must use their own judgment as to what colours to use, as people differ so much in taste.

I am not going to deal here with manures, preparing ground, insects, diseases, watering and other cultural details, as no doubt this will be dealt with separately by other growers. But whether Sweet Peas are grown for garden decoration or for exhibition, the culture should be the same, only allowing more shoots to remain when grown for decoration, but do not plant any thicker. One Sweet Pea will make a clump 4 feet to 6 feet round and produce hundreds of blossoms; therefore never plant thickly.

There are many other ways of growing Sweet Peas for garden decoration, such as covering old tree stumps, but the culture would be the same as already advised; therefore I leave growers to decide where and how they will grow their Sweet Peas to produce the best effect. A. E. USHER.

SWEET PEA MRS. CHARLES FOSTER AS A POT PLANT.

THE illustration is one of Sweet Pea Mrs. Charles Foster flowering in May in a 7-inch pot at Baker's Codsall Nurseries. It was first sent out by this firm in 1907, but was withdrawn on account of its sportive nature. This, however, has at last been mastered, and would have been put on the market, quite fixed, by the firm this year had not the crop failed on account of the bad season. We are informed that they did not have a single rogue last summer. It is

SWEET PEA MRS. CHARLES FOSTER GROWING IN A POT IN BAKER'S CODSALL NURSERIES.

undoubtedly the best of its colour, which is a beautiful shade of lavender, slightly flushed very pale rose. The flower has a large, bold, wavy standard and perfectly formed wings, and three or four blooms are generally produced on a stem. The flowers are of the largest "Countess" type, and will be indispensable to exhibitors. It received an award of merit from the National Sweet Pea Society in July, 1905, and a first-class certificate at Wolverhampton the same year.

COLOURED PLATE.

PLATE 1393.

SOME OF THE NEWER SWEET PEAS.

IT is safe to assert that for every grower of Sweet Peas who includes the latest novelties in his or her collection, there are at least a dozen who do not, for various reasons, purchase these novelties, but devote their energies to the culture of those varieties which have been on the market long enough for their good and varied characteristics to become known, and yet which cannot be in any way regarded as obsolete sorts. For this reason the coloured plate presented with this issue of THE GARDEN has been prepared, and the varieties figured thereon may be regarded as an ideal half-dozen, suitable alike for exhibition purposes and for general use. Besides growing these varieties in my own garden last year, and some of them in 1908, I had the opportunity of seeing them growing in various parts of the country and under widely different circumstances, and the following remarks are a sort of summary of the varieties as seen under these varying conditions. Taking them in the order named, we come first to Mrs. Ireland. This I consider to be one of the prettiest Sweet Peas in existence; but unfortunately the illustration does not do it full justice. In reality the rose colour is softer. To see this variety at its best one should have a large bunch of it in subdued light; by artificial light it is superb, and for general indoor decoration I know of no variety to beat it. Then, again, it is a remarkably pretty variety when growing, and its vigorous constitution and free-flowering properties render it an ideal sort for garden decoration. It is not so large as some, but it was freely exhibited last season at the leading shows. I remember seeing a bunch of this at Mark's Tey in 1908, before it was sent out by Messrs. Dobbie, and at that time predicted a brilliant future for it. I think it is one of those varieties that should not have the soil very heavily manured. It obtained a first-class certificate from the National Sweet Pea Society in 1908.

The King is another of Messrs. Dobbie's introductions and made its *début* with Mrs. Ireland. It has been described as a large-flowered waved form of King Edward, but the colour is more brilliant than that sort. It is a vigorous growing variety, but unfortunately it burns rather badly in bright sunshine. A valuable sort for exhibition purposes providing the flowers are shaded a little. It may be interesting to note that when this variety and Mrs. Ireland were shown together before the floral committee of the Royal Horticultural Society in 1908, The King received an award of merit, while Mrs. Ireland was passed over. At the time this was considered an error of judgment by many, and time has proved this to be correct.

Mrs. Henry Bell was introduced by Mr. W. Bolton of Carnforth in 1907, and at once became a great favourite. It is a strong-growing variety, and when the flowers are at their best they are very beautiful indeed. It is good for exhibition and also for house or garden decoration, and may be regarded as one of the best standard varieties of this shade. Unfortunately, the delicate pink colour fades a little as the flowers age, but a good bunch of first-class flowers can always be gathered from well-grown plants. Two novelties that are likely to oust this variety in a few years, owing to their intensified colours, are Mrs. Hugh Dickson (shown last year as Mrs. Henry Bell Improved) and Gladys Burt.

Mid Blue is another variety that emanated from Messrs. Dobbie in 1908. The colour in the plate is too dark, but the illustration gives a good idea of the shape of the flowers, which are of the grandiflora type. In reality the colour is deep sky blue. The habit of the plant is only moderately vigorous, but it is a pretty variety for garden decoration, and when well grown makes a useful sort for a large group in an exhibition; well worth growing for the sake of its colour.

Evelyn Hemus, like Mrs. Ireland, seems to object to very heavily manured soil. It was raised and introduced by Miss Hemus in 1907, and is undoubtedly one of the most refined varieties that we have. It is equally good for garden or house decoration, and also for exhibition, and no garden can afford to be without it. In habit it is moderately vigorous. Last summer, probably owing to the excessive wet and, in many cases, over-feeding, the flowers came streaked with rose in many places; but given a favourable season I do not think this is likely to occur again this year. The raiser states that this variety does best when sown in autumn.

The last on the coloured plate is Hannah Dale. This came from Messrs. Dobbie in 1907, and may best be described as a glorified Black Knight. It possesses all the good qualities of this old variety, and, in addition, gives larger flowers, more stems with three blooms, and the flowers have a beautiful bronzy sheen, especially when seen in sunlight, which those of Black Knight do not possess. The standard, too, is somewhat different in shape to that of Black Knight.

How quickly a Sweet Pea of merit gets distributed is manifested by the fact that all seedsmen who make a speciality of these flowers now have seeds of the varieties described to offer, although none of them was sent out by the raisers before 1907. F. W. HARVEY.

AUTUMN-SOWN SWEET PEAS, 11 FEET 6 INCHES HIGH, IN THE GARDENS AT RAMSEY ABBEY, HUNTINGDON.

AUTUMN-SOWN SWEET PEAS AT RAMSEY ABBEY.

THE illustration is from a photograph of Sweet Peas grown in the gardens at Ramsey Abbey, Huntingdon. These reached a height of 11 feet 6 inches. The varieties are Bolton's Pink and Lady Grizel Hamilton in alternate groups, and were sown outside during the first week in October, 1908. We cut the first blooms the last week in May, 1909.

F. W. SEABROOK.

GATHERING, PACKING AND EXHIBITING SWEET PEAS.

THOUGH very much has been written during the last few years on practically every subject connected with the culture, history and other phases of Sweet Peas, very little information in proportion has been given under the above heading. I consider it is one of the most important points, for after several months of pleasant work in sowing, tending and training, manuring and watering, this avails us nothing unless we are able to get them to the exhibition in the very best condition. That a few hints are necessary to many is obvious by the manner in which many exhibitors (these are possibly the beginners) take their flowers to the shows and, even after they get them there, the careless way in which they are put up. Very often I have seen really good flowers out of the prize-list simply through the blooms not being staged to the best advantage.

SOME OF THE NEWER SWEET PEAS

. Ireland The King Mrs. Henry Bell
-Blue Evelyn Hemus Hannah Dale

GATHERING THE BLOOMS.

This is the first point under consideration, and, to be quite sure of having fresh flowers only, the best plan is to go over all the plants about five clear days before the date of the exhibition and remove every flower-stem that has got even one bloom fully developed on it. These five days may be reduced to three if the weather has set in hot after a spell of wet, as the flowers then open very quickly. This may seem a bit drastic, but it greatly facilitates matters when cutting. After thus clearing off all the blooms that are open, those varieties that need a little shading should be attended to, but do not overdo this. Very fine tiffany may be stretched over the row or clumps, or two or three thicknesses of fish-netting will suffice in most cases; but be sure that it is well away from the blooms, for if there is not an abundance of air around the flowers they will lose colour equally as bad as if the sun was allowed to shine on them.

Should the show be some distance away, it may be necessary to travel on the afternoon of the day before. This will necessitate cutting in the morning; but if possible it must be left till the flowers have become dry, as cutting with heavy dew on them is, I believe, even worse than rain. If the show is near and there is no need to travel till the morning, then they may be left till the sun has somewhat lost its power in the afternoon; but endeavour to finish before the blooms get damp again. After cutting, the blooms should be loosely arranged in vases in an open shed or room where the air can get through them freely, and be left there till immediately before the time for travelling. It often happens that cutting has to be done while the flowers are quite wet and even while it is still raining. Should this happen, great care must be taken not to crush the blooms when gathering. As each bunch is gathered, carefully shake off as much moisture as possible, and then arrange the blooms loosely in vases (or old jam jars will do) and place in a greenhouse where a current of air can pass through them after passing over slightly heated water pipes. Here they will soon dry and not be much the worse for their wetting. The great thing is to get the flowers (not the stems) perfectly dry before packing, and by doing as advised above I have carried flowers close on 300 miles without them spotting in any marked degree, and this after three days' continuous rain.

Cutting the flowers too young is as great a mistake as cutting them too far advanced. Certainly young flowers will always grow in water, but many of the varieties do not improve in colour, and we cannot always tell what sort of a day is to follow, for if dull and cold they will open but very little. Generally speaking, three out of the four blooms should be fully expanded when cutting, and this is quite necessary with varieties such as Mrs. Henry Bell, Asta Ohn, Elsie Herbert, Rosie Adams and Mrs. C. W. Breadmore. These are very robust sorts, and if not fully developed, the top flower is apt to hang down a little and thus spoil the appearance of the bunch.

A fault with many growers is to take too many blooms to the show and to rely on picking out the best while staging. Now the proper place to pick out the best flowers is while they are still on the plants, and if a little time is expended on this when gathering it will do away with a great deal of sorting over at the show, where there is often not much room and very little time left to do it in. From eighteen to twenty well-developed blooms will well fill a vase and give nice room to show each flower off; so from twenty-five to thirty should, under favourable weather conditions, be quite sufficient to take to the show, and this number can be lightly tied together without much fear of crushing, whereas if a much larger number is taken there is considerable danger from this source.

PACKING.

This should never be done till the last possible moment before travelling, especially if the weather is mild and damp. The best receptacles are either shallow baskets or well-ventilated boxes from 4 inches to 6 inches deep. These should be carefully lined with grease-proof paper, or, if the flowers happen to be damp, then ordinary white tissue paper should be used, as this absorbs much of the moisture. Never pack more than one layer in a box or basket, placing a piece of paper over the stems as these are put in, so that none of the flowers lays on the wet stems of the others. In this way, providing the flower-stems have had two or three hours in water, they will travel almost any distance within reason. The longest time I have had flowers out of water has been about twenty hours, and these came up quite fresh again after an hour in water.

AT THE SHOW.

On arriving at the show, no time should be lost in securing the necessary vases so as to put the stems in water at once, and if the proper places can be found so much the better, but if not, a temporary position will be better than leaving them out of water. After this the proper arrangement of the flowers may be proceeded with at leisure, and if the blooms have been carefully gathered there will be very little trouble in sorting them over. Just count out the necessary twenty spikes and put the few worst right away, so that no mistake can be made in putting in too many sprays. A little Heather, straw or Rushes may be put in the vases, and this, with a few small pieces of haulm round the outside edge of the vase, is all that is necessary to keep the flowers in proper position. Endeavour to arrange the flowers well apart from one another, and in such a way that the vase appears full from whatever side it is looked at. Often the judges will take out a particular vase to look at, and may not put it back in quite the same position, and if it has not been arranged evenly the worst side may present itself and thus materially spoil the effect when the exhibit is looked at as a whole.

Care must also be taken to arrange the various colours so that they do not clash, but rather try for each vase to enhance the beauty and colour of its neighbour, after which all vases should be looked over to make sure no rogue has crept in; also see that they are correctly labelled. Do not under any pretence whatever be late in arriving at a show, as Sweet Peas take a long time to arrange effectively, and if three or four dozen vases have to be put up, it is just as well to have time to spare so as to take a little rest about halfway through. By so doing the others will go up very much easier. Also, do not try some fresh scheme of arrangement just before judging commences, as more often than not the vases get knocked about and there is not time left to put them right again.

If the above hints are strictly acted upon, there is no reason why the beginner should not stand a good chance with the professional, providing always, of course, that his flowers are as good to start with.

THOMAS STEVENSON.

Woburn Place Gardens.

SWEET PEAS GROWING ON FISH-NETTING USED FOR PROTECTING FRUIT IN THE GARDENS, LITTLE GADDESDEN, BERKHAMSTED.

SWEET PEAS GROWING ON FISH-NETTING ROUND FRUIT BUSHES.

THE Sweet Peas shown in the illustration are growing on fish-netting that covered in the bush fruits. I have grown Sweet Peas in the same place for six years now, right round the covered-in space with the exception of the end on the left of the illustration. I plant them singly about 1 foot apart, and at the same time put in twigs from old Birch brooms that are past duty, which give them a start. After that they cling to the netting with no other support, and go over the top (which is about 8 feet high) for as much as 3 feet. I have picked Red Currants grown under them as late as October.

A. G. GENTLE.

The Gardens, Little Gaddesden, Berkhamsted.

GARDENING FOR BEGINNERS.

RAISING SWEET PEAS IN BOXES.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—Providing the soil is in a suitable condition, a small sowing of Broad Beans may be made now, selecting one of the longpod varieties for this early crop. A warm position should be chosen, and if mice are at all troublesome the seeds must be just dipped in paraffin and then shaken in red

I.—A CARDBOARD BOX DIVIDED INTO NINE SECTIONS, EACH CONTAINING ONE PLANT.

lead, so that each one is coated with the powder. The rows ought to be 2 feet apart and the seeds sown 15 inches asunder in the rows, placing two seeds at each station. At this early season it is a good plan to cover the seeds with not more than 1½ inches of soil, otherwise they will be likely to rot instead of growing as desired. Those who like the round-seeded Peas may also sow a row or two of these now, as if the weather proves favourable they will produce a crop a week or two in advance of the first wrinkled varieties. The seeds should be coated with red lead, as advised for the Beans, if any damage by mice is anticipated. Do not sow more than 1 inch deep, and, if possible, use a finely sifted and rather sandy mixture of soil for covering the seeds. These round-seeded Peas are not of such good flavour as the worst of the wrinkled sorts, and many growers prefer to wait until the end of the month, when early wrinkled varieties may be safely sown. Make more sowings of Mustard and Cress under glass, as advised a few weeks ago, as fresh crops of these are always welcome.

Flower Garden.—A few sunny days now will induce the Crocuses to open their flowers, and as sparrows are very fond of plucking these, apparently for the pure mischief of the thing, steps must be taken to prevent them ruining the display. Yellow varieties seem to be most frequently attacked. Obviously fish-netting or wire Pea-guards are out of the question here, because they would effectually hide the beauty of the flowers; hence recourse must be had to black cotton, which is almost invisible and not difficult to fix over beds or clumps in borders. Some stout sticks about a foot or 15 inches long should be thrust firmly into the soil so as to stand just above the flowers, and the cotton then stretched from these in all directions so as to form a sort of thin network over the plants. This is a very effective form of protection and well worth the little trouble entailed in carrying it into effect. After the severe frosts which were experienced at the end of January, it is highly probable that many subjects planted just previously will have been loosened and, in some cases, lifted nearly out of the soil. Where this has happened, no time should be lost in putting the plants right again, well firming the soil about their roots.

Greenhouse and Frames.—In many amateurs' greenhouses Ferns rightly occupy a prominent position, and providing the weather outside is warm, a start may now be made with the repotting of these, from now until the middle of March being the best time of the whole year for doing this work. Before doing anything else, however, all dead and decaying fronds should be cut out right close to the crown of the plant, and any retained carefully searched for insect pests. It is not wise to give these plants pots of much larger size than they now occupy, and, except in the case of young specimens and those growing in soil which has become sour, a top-dressing of new soil will usually suffice. A good general mixture for ordinary Ferns is fibrous loam two parts, coarse peat or flaky leaf-soil one part, and coarse sand half a part, the whole to be well mixed and only the coarsest and most fibrous of the loam and peat to be used. This should be mixed and placed under cover several days before required, so that it may become slightly warmed. Moderately firm potting is essential. Where top-dressing only is deemed sufficient, remove about an inch of the old soil and replace it with the mixture advised above. Newly potted plants should be kept in a rather close and warm house and be carefully watered until growth is active.

Fruit Garden.—Where a Vine or Vines are to be planted under glass, the present is a good time to do the work providing plants in pots are obtained and these are in a perfectly dormant state. The border will, of course, have been previously prepared and allowed time to settle down, so that planting may be proceeded with at once. To get the Vine out of the pot it may be necessary to break the latter, so as to avoid injuring the roots. Next carefully pick and shake away all the soil from the roots and make a hole in the border large enough to lay them out their full length, and see to it that the rod is not planted deeper than it was in the pot. Tuck fine soil firmly among the roots and let each one occupy its natural level. Where hot-water pipes are placed at the back of the border, the Vine should be so placed that the rod is at least 1 foot away from them. After planting make the border tidy, prune the rod back to a good plump eye or bud about 3 feet from the base, and after a week or two lightly syringe the rod morning and afternoon with tepid water. Where the Vines are to grow on the single rod system, *i.e.*, one main rod to each Vine, 4 feet apart is a good distance to plant. Black Hamburgh is undoubtedly the best all-round variety for an amateur to grow.

A. A.

A NOVEL METHOD OF RAISING SWEET PEAS.

LAST year the very uncongenial weather made the harvesting of Sweet Pea seed a critical undertaking, and has resulted in a shortage of the number of seeds per packet, particularly so with the beautiful Spencer forms. For this reason we must make the most of what seeds we do get; I for one shall not risk my scarce and expensive varieties in an out-of-doors sowing, where the ravages of slugs and birds will almost be sure to deplete their ranks. Last season, being an enthusiast of the first water, and willing to go to any amount of trouble, I interested myself in trying an unusual plan of raising my exhibition batch of seedlings, and as success crowned my efforts quite beyond my anticipations, I will briefly relate it.

The method I employed was to collect a number of old cardboard boxes of various sizes, not any very large, and having cut them to a uniform depth, I divided them into sections of about 3 inches. Anyone with a sharp knife can prepare one of these in a few minutes, and I find no more interesting employment during the long evenings than to sit by the fire and get them ready. Having prepared my boxes in advance, the main sowing was made on February 14. The sections were filled with good potting soil pressed in moderately firm, and one seed was placed in each; when all was ready they were placed close together in a cold frame, and any cavity remaining was filled up with fine ashes to the top of the boxes. When I mixed my soil I took care to see that it was just nicely moist, and this did away with any need for watering until germination had taken place, and even then I only watered them at long intervals, my object being to keep all nice and moist without getting the soil at all sour.

Fig. 1 represents a box of nine fine plants, exactly as taken from the frame, and for sturdiness they were hard to beat. Some will, no doubt, argue that the cardboard will decay and fall to pieces when moved, with disastrous results; my experience was on the contrary, as this is really one of the greatest advantages of the system, for, getting somewhat decayed, the sections easily came apart without a root getting

2.—THE SAME BOX, SHOWING THE METHOD OF REMOVING THE PLANTS FOR TRANSPLANTING.

broken. Fig. 2 speaks for itself on this point. Here it will be observed the whole of the soil has left the section with the roots intact, and when planted immediately the advantage gained can readily be understood, for the plants do not receive the slightest check.

Another great advantage I found these boxes possessed over pots was that the roots did not get entangled together, and so present an almost inseparable mass. Many a time, when pots have been used, I have tapped out a splendid clump of plants to find the roots all intermixed in such a fashion that it has needed a considerable amount of good judgment to determine the best ways of dividing them in the most expeditious manner with the least possible injury, and when eventually I have done so it has not been without a number of precious little roots being broken. By adopting the method previously described all anxiety on this point was set at rest. I planted out in flowering quarters the second week in April, and felt well repaid for any little extra trouble I had taken with them when seeing how well and strong they grew and hearing the admiring remarks passed by all who saw them.

GEORGE BOYD.
(Gardener to S. F. Jackson, Esq.)
Danehurst, Epsom.

LIFTING AND REPLANTING FRUIT TREES.

To lift a young fruit tree and then replant it almost immediately in the same position will probably seem to the beginner a waste of time and the operation an entirely senseless one. Yet such work is frequently done by experts in fruit-growing and, under certain circumstances, is capable of producing excellent results. To put the matter briefly, it is a modified form of root-pruning and is usually adopted with stone fruits, such as Peaches, Apricots, Plums and Cherries, which are of a convenient size for lifting. The object in lifting the trees is precisely the same as that for which root-pruning is done, viz., the checking of too exuberant growth and to induce the trees to form short spurs and eventually flower-buds.

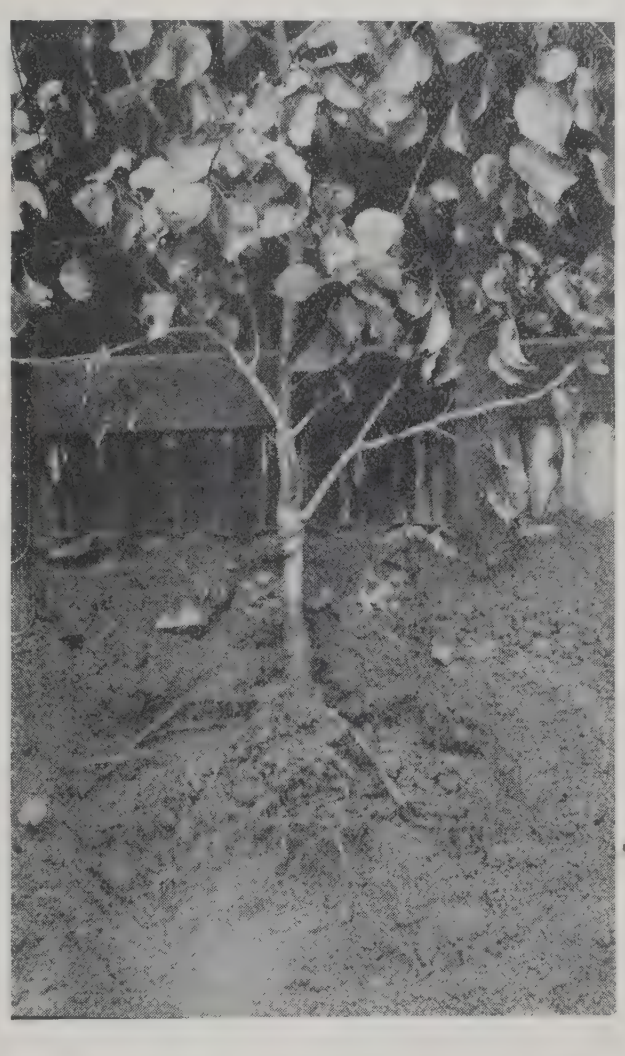
It often happens that when young trees of the kind named get established, they grow away at a great rate and the owner may think they are doing well; but when several years elapse and few, if any, flowers appear, there is little satisfaction to be derived from this display of unchecked vigour. It is in such cases as these that the lifting and replanting may be done with advantage. Like root-pruning, the work is best done in autumn, just when the leaves are commencing to fall; but it may also be done at the present time, especially with trees outdoors.

It will be necessary to dig round the trees so as to get all the roots out, and after the whole of them have been shaken free of soil, all the large ones that are practically devoid of fibres, and especially any that are growing in a downward direction, may be cut back to within a few inches of their point of origination, using a sharp knife and making the cut from below in an upward and outward direction. After this is done, all the branching, fibrous roots may be spread out near the surface and the soil rammed moderately firm between and around them, adding to it, if possible, a good sprinkling of old mortar or even chalk. The accompanying illustration shows a young Apricot tree that was lifted last autumn in the manner described above. It will be seen that most of the roots retained are of a fibrous character. These, when the soil is filled in, will be kept towards the surface so that they permeate the suitable soil provided there for them.

F. W.

HINTS ON LAYING TURF.

THERE are one or two apparently small matters which must be carefully attended to if a perfect lawn is to be made by laying turf. First, remove weeds; this is easily done by placing each separate turf on a temporary bench and cutting out the weeds with an old knife. When laying the turf do not walk on the prepared ground without the use of planks, otherwise the surface will be far from even. After the first row of turf is in position, place the plank on this to stand on and work on in this way, thereby avoiding any disturbance of the soil on which the turf is placed. When many turves are in position make them firm by using the turf-rammer; the surface of this tool must be perfectly smooth and clean, and care taken that the operator works evenly over the whole area. To secure a neat edge to walks and flower borders, allow the turf to overlap slightly; then cut off the portion not required with the edging-iron. After a few days (weather permitting) roll the lawn thoroughly. A moderately light roller should be used in preference to a heavy one at first, as the latter is liable to shift the turf out of its position. When removing patches of weeds or bad turf



AN APRICOT TREE THAT WAS MAKING TOO VIGOROUS GROWTH. IT HAS BEEN LIFTED, THE MAIN ROOTS SHORTENED, AND THE FIBROUS ROOTS SPREAD OUT READY FOR REPLANTING.

from an existing lawn with the idea of replacing with good turf, remember that it is much easier to fill in with square-cut turves, and prepare for the same. From various reasons divisions will sometimes occur between the turf, and when these are noticed fill in with finely sifted rich soil, into which the grass will quickly grow.

C. RUSE.

THE TOWN GARDEN.

THE CARE OF ROOM PLANTS.—Not least among the trials and perplexities of the town dweller is the problem of how to keep room plants in continued health and vigour; and this, in all probability, will long remain a problem difficult, if not impossible, of satisfactory solution. In his dealings with plants in the greenhouse, the gardener, be he amateur or professional, is dealing with his subjects in a more or less congenial environment, aided materially by light, air and that degree of atmospheric moisture which is so much to plant-life at all seasons. In the dwelling-house these conditions are entirely changed, while those existing are, for the most part, quite opposed to success. But just what success may attend the cultivation of plants in the dwelling-room will largely depend upon circumstances, and particularly whether both fires and gas are in daily use. Against these the skill of the gardener cannot long prevail, and the fact is mentioned here to afford some satisfaction—poor though it be—to those who struggle bravely with their pot plants amid such surroundings.

THE BEST CONDITIONS FOR PLANTS.—Because plants are grown chiefly in structures artificially heated, it does not follow that they will not endure with impunity a certain degree of cold. As a matter of fact, cold, even to freezing point, occasionally is less harmful than the conditions to which reference has already been made. An essential condition in times of extreme cold is that the plants be dry, or comparatively dry, at the roots. Indeed, comparative dryness may be regarded as a sort of safety valve from November to February inclusive; and in a room where a fire is only occasionally lighted, and where there is no gas, such things as Aspidistras and those graceful Palms known as Kentias would not require water oftener than once a fortnight. For about eight years a Kentia belmoreana has been maintained in perfect condition by these means, having occupied a position in a large bay window the whole of that long time. This Kentia, grown from a tiny plant, now has a spread of fronds of nearly 6 feet, and has been twice repotted. When water is needed, the pot is placed in a pail of rain-water for some time, never less than ten minutes, and when a new frond is appearing a little guano is given directly the plant has had its dip.

PLANTS FOR DARK CORNERS.—Given this treatment, it is surprising how well the Aspidistra, "Parlour Palm," and the India-rubber Plant will thrive in quite dark corners, putting on a dark green appearance out of all proportion to that which the plant assumes when grown in the greenhouse. For any of the plants mentioned frequent root disturbance is not good, and provided the drainage is open and free, a little top-dressing of soil mingled with bone-meal or guano will be found of greater benefit than repotting.

A NEW PALM.—Not strictly new, perhaps, to cultivators, but new to a very large number of amateurs, is that charming and graceful Palm, Phœnix Roebelini, certainly one of the most elegant plants for a room that I know. Quite apart from its elegant grace and charm, this ideal table and room plant promises much serviceableness by reason of its hardy nature, and in this respect it is likely to prove the equal of any of those mentioned. In proof of this I have but to mention the fact that in a sitting-room where a fire is not of daily occurrence a new frond has been making marked progress for weeks past—weeks characterised by cold, by shortened days and light at its lowest ebb.

A GOOD ROOM FERN.—Those who have never tried to grow some of the good evergreen types of Ferns would be surprised—not to say charmed—at their distinctive beauty in the sitting-room in summer-time; indeed, some of them are quite unique. The one I have uppermost in mind at the moment, however, has perhaps but one drawback, viz., its cumbrous title of Polystichum angulare proliferum; but where the amateur does not know its name there should be nothing to detract from its beauty or value. The variety is evergreen and, for all practical purposes, hardy. Its fronds are numerous, often 18 inches in length, at first erect, then horizontal, and finally slightly drooping; hence a good example is most effective. For its cool-looking proclivities in summer-time the plant is delightful in the extreme.

E. H. JENKINS.

SWEET PEAS AT WEM, SHROPSHIRE.

IDEALS—WAYS AND MEANS.

"GREAT BRITAIN is the motherland of the Sweet Pea of to-day." So wrote the Rev. W. T. Hutchings of Massachusetts, U.S.A., in an article on the Sweet Pea in America published in the Report of the Bicentenary Celebration in 1900. It was the work of Henry Eckford that made such a statement possible and true. If he was not the only one to take the improvement of the Sweet Pea in hand, he soon outdistanced all his competitors; and so its early history in the eighties of last century is really the account of what was going on at Wem, where the late Mr. Eckford finally settled and where the greater part of his splendid work was accomplished, enabling him (to quote our American author again) to "give a perennial joy to mankind." In contrast to these not very distant times we get to-day nearly fifty individuals or firms sending stocks to be tested at Reading (*see* Catalogue of Trials, 1909), by far the greater majority of whom are raisers themselves. Their work is of the greatest interest, and some of its results have been truly wonderful and quite unexpected. The points that Mr. Walter P. Wright laid down as essential factors in a perfect Pea are quite superseded and outdistanced. The "quite flat, well rounded," "free from notch or serrature" standard has given place to something which is as unlike this as it can be. And as the wings have followed suit, I am beginning to wonder if what we get on a stem we should still call a flower. But perhaps the flowers are not so important after all, for I have been asked by a very high authority if judges this year were going to judge stems or flowers. It might help more than the Irish lady who last year found to her cost that it was the former and not the latter that weighed with the judges, to know which it is to be. I have said all this because I know Mr. John Eckford feels very much as I do, and thinks that "the give a yard and take an ell" has been unfortunately exemplified in the wave of the standard, with the result that his good old father would turn in his grave were he to see the latest development of flower and stem. Take "form" away, and what is there to go for but "size"? Make "size" your idol and then "form" is of no account, and "fragrance" just worth mentioning and that is all. Since I wrote the above I have seen the "scale of points to govern judges" issued by the National Sweet Pea Society of America, and it is a striking commentary on my remarks that out of 100 points not a single one is given to form and only a paltry five to

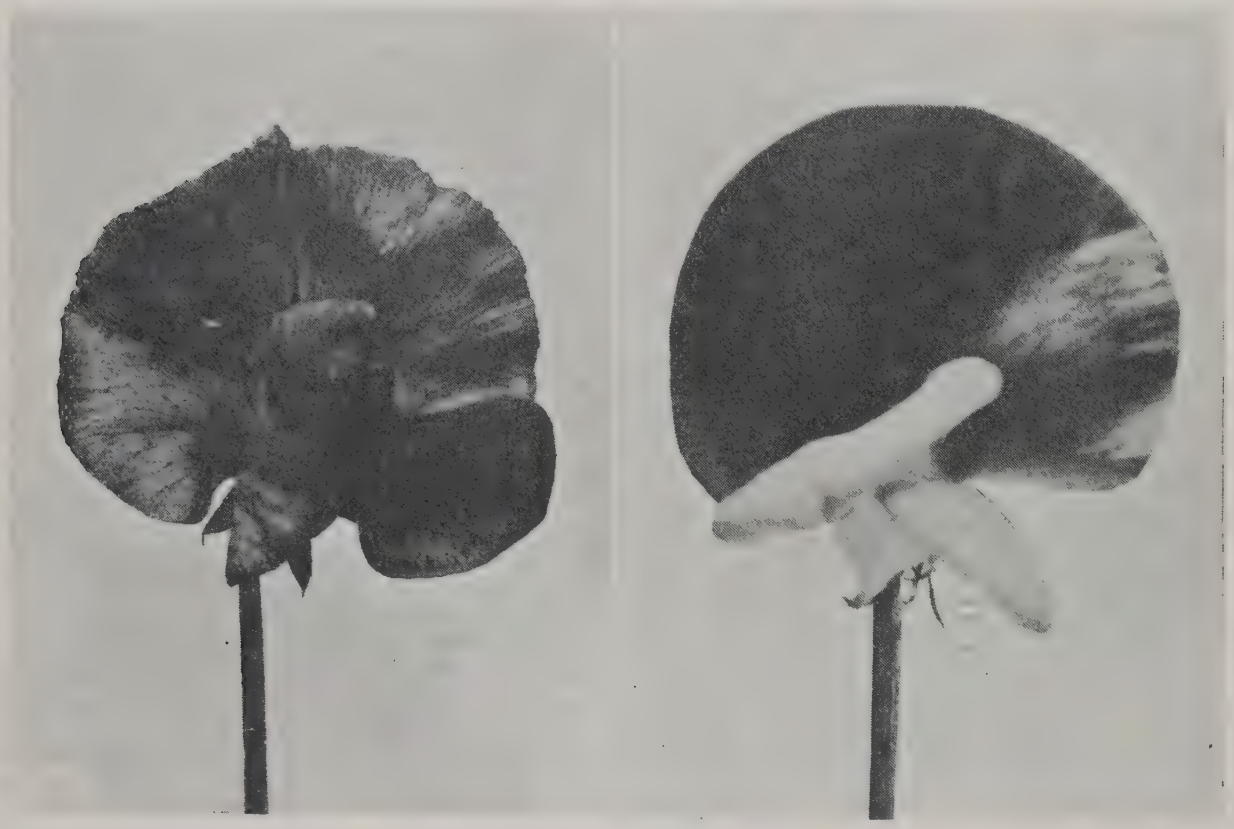
FRAGRANCE.

In politics one side often says to the other when it is criticised, "Well, show us what you would do." So in answer to my supposed critics I am glad to be able to point to the small illustrations that accompany this article. The picture on the right is, in the opinion of Mr. John Eckford, that of an almost ideal grandiflora standard, while the other one is that of one in which, in my opinion, quite enough waviness has been introduced to make it a pleasing bloom. Mr. Eckford is not at all averse to a moderate amount of waving, but he is not in favour of those varieties "which have their standards so twisted and turned back that it is impossible, from any point of view, to see the whole flower." At the end of last July I visited Wem, and under the guidance of the master himself I saw all that was to be seen. One beautifully formed flower with a standard of bright rose, which became a distinct tone of orange scarlet towards the edge, with wings of rosy crimson, was especially noticeable. It is now practically fixed, and as an example of the care taken at Wem to only send out true stocks, I learnt that it would not be on the market for a year or two yet and that, when the public has it, it will be at least eight years old. Another interesting flower that will be introduced in two years' time is a warm, rich, flesh-coloured self with a perfect standard of the grandiflora type. When this is cultivated like Mr. T. Jones cultivates at The Bryn, Pen-y-lan, it will be extremely beautiful. To quote a Limerick I once made:

There was a Sweet Pea at The Bryn,
Whose petals were first a bit thin;
But cute Thomas Jones
Gave it plenty of bones,
And now! What prize can't it win!

The development of blues and reds occupy a good deal of time and thought at Wem. I saw a Lord Nelson Improved, a bluer Captain of the Blues, and many very beautiful orange carmines and crimsons and Queen Alexandra reds. Other "good things" were (1) a pale lavender grandiflora self; (2) a deep red maroon waved; (3) a pale cold blush waved. What, now, are the ways and means taken to attain the ends in view? Carefulness and work! Henry Eckford is now no more, but the two men who more than any others helped him in his labours are still at Wem. Mr. John S. Eckford, aided in no small degree by his trusted lieutenant, Mr. John Jones, carries on the old business on the old lines and in the old spirit. At Wem and in Essex there are no less than seventy acres under Sweet Pea cultivation. The manufactory is at Wem. To begin with, hundreds of crosses are made each year. This part of the work Mr. Eckford does himself. In an average year he will get about 2oz. or 3oz. of seed. These are sown together with some of that from the labelled plants. These labels, to the number of about 5,000, are tied on to the most promising seedlings and breaks. Each of them has some little note or reference number for guidance at harvest-time. The labour must be immense, and I do not wonder that Mr. Eckford seldom gets away from home in the summer. Three acres are given up to these selections and new Peas. Then there are two acres entirely filled with trials of everything that is on the market, and one acre where high cultivation is practised to provide good blooms for sending to shows. There is plenty to see at Wem and much to be learnt from a visit. Take just two examples from the trials of market varieties: (1) Among the whites Zero comes out as an excellent early kind; (2) Mid Blue and Zoe are side by side. They are very nearly the same in colour, but in vigour and floriferousness the former easily leads. The respective merits of Sweet Peas for garden decoration and also for that of the show table are often lost sight of. If I may, I will conclude these notes with one little bit of very practical advice which my visit strongly brought home to me, viz., the wisdom of trying to see gardens where a great many different kinds are grown side by side under ordinary conditions, and of trying to pay at least two visits in the same year. One is then in a position to judge the floriferousness and the continuity of blooming in the different varieties, two all-important factors in selecting what is best to grow.

JOSEPH JACOB.



TWO TYPES OF SWEET PEA FLOWERS. THAT ON THE LEFT IS SLIGHTLY WAVED, AND THE OTHER A TRUE GRANDIFLORA BLOSSOM.

THE KITCHEN GARDEN.

EARLY PEAS FOR AMATEURS.

MANY amateurs are unable to grow such crops as Peas, Beans and other vegetables under glass, but much may be done to forward the early crop, and this year I fear growers who have a heavy, wet or clay soil to deal with will be somewhat handicapped. The seeds of many vegetables grown in this country had such unfavourable weather during their ripening that to sow early in such soils would be to court failure. Much better results are secured as regards earliness by sowing in pots or boxes under glass in cold frames. I prefer pots to boxes or turves, and seed sown at once and kept close for a short time will quickly germinate and be ready to plant out in March. There is no gain in sowing in the open in cold, wet soil too early; but, on the other hand, if the crop can be started as advised there is a considerable gain, as the seedlings go away strongly when planted out, and there is no check by severe weather.

As regards the sowing, so much depends upon the grower's convenience for the work. As previously stated, I prefer pots and not too many seeds in them; but here again so much depends upon the size of the pot. I used 4½-inch largely, as we required great quantities of early produce,

and some nine to twelve seeds were sown in each. In 3-inch pots half the number would suffice. The soil should be rich, and no drainage is required other than some coarse manure or the rougher portion of the soil. I prefer manure of a dry nature, as the roots take to this and at the planting-out-time are a compact ball.

Turves also may be used, and these are cut in 12-inch lengths, about 3 inches wide and the same depth. The grass side is underneath and the upper portion hollowed out slightly like a drill. These are placed in frames close together and the seeds sown in them, using some good light compost for covering the seeds. The turves are readily transferred to the border, drills having been made previously to receive them.

In selecting the turves, those of a holding nature and of good loam should be chosen. I do not advise a sandy or gravelly material.

EARLY TURNIPS FOR AMATEURS.

THIS vegetable in a young state is always appreciated, but the best results are not always secured, as at times the amateur does not select the best variety. I have seen many crops fail owing to the plants running to seed. In a very heavy clay soil much may be done by improving the surface soil previous to sowing by adding some burnt garden refuse or wood-ashes. This is of great benefit and much better than manure. There are now some very early varieties, and these differ from the old forms, as they are of rapid growth, the roots are oblong, and some are long like a large, thick Radish. The best are Sutton's White Gem, which forces well on a mild hot-bed; and Carter's Early Long Forcing, a very fine early root which, if sown on a warm border, matures very quickly. Another very good early variety I grew last year which has a small root, but is remarkably rapid in growth, is Carter's Little Marvel. This is as early as the long roots referred to, is globe-shaped and a splendid forcing variety. For succession to those named I do not know of any variety that is superior to Sutton's Snowball, a beautiful root for late spring and summer supplies and of splendid table quality.

SUGAR PEAS AS A SUMMER VEGETABLE.

AT this time of year, when growers are busy sowing their seeds, the Sugar Peas should be given a trial. These are much liked on the Continent. In this country we are much too conservative as regards vegetables, and do not study variety sufficiently. The Sweet Sugar Peas provide a distinct change from our ordinary culinary Peas, and if gathered at the right moment they are delicious. They are not shelled, but the pods are cooked whole. Many persons add sugar when boiling them, but this is a matter of taste. There are not many varieties offered for sale in this country, but there is no difficulty whatever in getting a good form of these from our leading seedsmen, as they are as well known as the French Sugar or Edible-podded Pea. I usually make three sowings, one early in March and the others in April and May. The chief point in their culture is to grow them in good land, not too closely together; the height averages from 4½ feet to 5½ feet. The plants continue to form fresh pods, but in an old state these are valueless as a green vegetable. The pods, when well grown, are thick, fleshy and of a very delicate flavour indeed. They make a handsome dish with poultry or white meats.

FINOCCHIO, OR FLORENCE FENNEL, AS A VEGETABLE.

I NOTE for the first time that this vegetable is illustrated in Messrs. Sutton's catalogue, and as I have frequently advised its culture, I am pleased to note its introduction. At the same time, I should point out that it appears under the heading of herbs; but my note more concerns its use as a vegetable. This plant is largely grown in Italy, and it is strange that in France gardeners do not grow this in quantity. There is no difficulty whatever in its culture, as if seeds are sown in April or early May in good land in rows 18 inches to 2 feet apart, and the seedlings thinned from 9 inches to 12 inches in the row, excellent produce will be secured for the late summer and autumn supplies. Those who like the taste of the ordinary Fennel, the green tops of which are used for fish sauces, will like the Florence variety, which is not so strongly flavoured as the first-named and has a much sweeter taste. The plant, when nearly full grown, swells at the base, and the lower part is not unlike a divided Shallot, but larger. This is the edible portion, and should be earthed up to blanch it. Treated thus it makes an excellent vegetable. I have lifted large roots in the autumn and kept them for a long time when stored in sand in a cool shed. G. WYTHES.

TOMATO MUIRTOWN SEEDLING.

THIS Scotch-raised variety is quite a good winter-fruiting form, with medium-sized fruit of a deep red colour. When I say that as many as fifteen to twenty fruits in a cluster are frequently seen, it will be readily understood that it is a free-bearing sort and a desirable one for the autumn and winter supplies. The fruit, too, is shapely, with no tendency to crack, while the flavour leaves little to be desired. Pots 9 inches in diameter are quite large enough to carry plants through the autumn and winter months in a satisfactory condition. E. M.

THE FRUIT GARDEN.

ON THE CARE AND MANAGEMENT OF ORCHARDS.—II.

BEFORE resuming my remarks on the above subject, I wish to correct an error which inadvertently appeared in my notes recently, where it was stated that not more than 7,000 trees were now alive and doing well on an estate on which 20 000 trees had been planted. The number should have read *17,000* and not 7,000.

PROTECTING TREES IN THE ORCHARD.

The orchards which I have more particularly in mind at the moment are those associated with farms and small holdings on country estates, which, with few exceptions, are planted on grass land, and in which sheep and lambs are occasionally allowed to graze during the year. Unprotected trees under such conditions are bound to be permanently, and often irretrievably, damaged by the bark of the stems being eaten off, or by the stems of the trees being pressed down by sheep rubbing against them, thereby tearing many valuable surface fibrous roots by the pressure, which can never be replaced, and, moreover, the trees will scarcely ever afterwards resume their perpendicular form or make that satisfactory progress they otherwise would. As a protection from sheep and rabbits there is nothing better than stout galvanised wire-netting, 1 inch mesh and 3 feet deep, placed round the stem of each tree and firmly secured to three strong stakes made of iron or wood (if of wood, Larch preferred) fixed at a distance of 4 inches from the stem of the tree. Where danger from rabbits is feared, the bottom of the wire-netting should be buried in the ground 4 inches deep, otherwise the rabbits will burrow under it. A better plan to protect orchard trees from rabbits is to have fixed round the boundary fence or hedge galvanized wire-netting of the above description, thereby effectively preventing them having access to the trees. Unfortunately, of so little value and importance is the orchard considered by many of its owners that even cattle and horses are sometimes allowed a free run of it. No wonder at the high percentage of failures among the trees when this is permitted, as no ordinary protection is proof against damage, whether the trees are young or old, under such conditions. Another simple way of protecting orchard trees against damage from sheep is by tying firmly round the stems some branches of Thorn trees; against damage from rabbits this method is not so effective.

GRASS OVER THE ROOTS OF ORCHARD TREES.

Chiefly through the practical and scientific experiments carried out by the Duke of Bedford and Mr. Spencer Pickering, F.R.S., at his Grace's experimental fruit farm at Ridgmount, near Woburn, has the disastrous effect of allowing grass to grow over the roots of fruit trees, and especially young ones, been so forcibly and convincingly demonstrated. At any rate, there has never before, to my knowledge, been so lurid a light thrown on the subject as is to be seen here, and those contemplating the planting of orchards would do well to pay this interesting fruit farm a visit of inspection, the same as I did a short time since, if only to see for themselves the pitifully sterilising effect of allowing grass to grow over the roots of fruit trees.

PRUNING YOUNG ORCHARD TREES.

Many growers of orchard fruit trees of high repute, whose opinion and practice are deserving of the utmost respect, hold that young standard orchard trees should not be pruned at all at the time of planting or immediately afterwards, saying that better results are obtained by deferring the pruning until the following winter. There are others of equal standing and experience who hold that better permanent results are obtained by pruning the young trees the same winter as they are planted, and I range myself among these. The objection I have to deferring the pruning is because the young growth which emerges from the unpruned shoots in spring does so from their upper part only, and, as a result, that such shoots are left permanently bare at the base of either shoots or fruit-spurs. Moreover, the growth resulting from the point of the unpruned shoot will be less vigorous than will that resulting from the base of the pruned shoot, and, therefore, less able to give the young tree that foundation of strong and robust branches so essential to the tree's future success.

Taking, then, a newly planted standard tree of an Apple, Pear, Plum or Cherry, it will be found to consist of from five to six branches of the previous year's growth. Each of these should be pruned back to within nine or ten buds of its base. The result of doing this will be that at least three strong young shoots will spring from these basal buds, adding, say, fifteen new branches to the young tree the following year, which will go a long way to form the foundation of the number of branches required for the permanent furnishing of the trees, and in the case of the buds left, which will probably only make a partial offer to grow into shoots, some of them no doubt will ultimately develop into fruit-spurs; therefore a double useful purpose is achieved by pruning the shoots back. While on the subject of pruning, I may as well follow on and give details of the work of pruning the trees in future years. In the case of such trees as we are considering, which have ample room for development and which should be planted at least 20 feet apart, there will be very little pruning to do; certainly no shortening back of the annual shoots made. The yearly after-pruning of such trees should consist only in cutting out those branches which are inclined to grow inwards across the body of the tree. These, if permitted to remain, would so choke the middle of the tree with useless growth as to make the development and ripening of the fruitful branches in that part next to impossible. Further than this, it would be necessary to remove any weak or badly placed branches likely to overcrowd the body of the tree; but, as stated before, no shortening of the branches of the previous year's growth should take place. OWEN THOMAS.

INSECT FRIENDS AND FOES.

ENTOMOLOGY is undoubtedly an important branch of garden craft, the study of which gardeners can undertake during the natural course of their duties. The gardener who has studied the life-history of the various insects that attack garden crops is more successful in exterminating them than the gardener who relies on the rule of thumb. Then, again, without careful observation and study the few insect friends are liable to extermination.

FRIENDS.

Bees are undoubtedly the most important insect friends of the garden, either the familiar humble bees or the common hive bees. These insects have played an important part in the evolution of fruits and flowers. Of the wasp tribe the small solitary wasp, which is often seen in the summer, is a useful friend in the garden, as it collects caterpillars for the food of its own larvæ. These small wasps generally make their burrows in sandbanks, and are distinguishable from the common wasps by their smaller size, large heads and broad stripes of black on their sharply pointed abdomen. The common wasps, although they wage war upon various injurious flies, cannot be included in the category of friends on account of their depredations upon ripening fruit; in this case, to use an old adage, the remedy is worse than the disease.

Coccinellidæ (*Ladybirds*) should be by all means protected. They feed voraciously upon aphides, especially during their larval stage.

FOES.

Aphides or Plant Lice are probably the most common of insect foes, as nearly all plants are liable to their attacks. They damage plants in a twofold manner—first, by sucking out the sap and so weakening the vitality of the plant, and secondly, by interfering with the functions of the foliage by blocking up the breathing pores with their excreta. The effect of weather on aphides is great. Dry, hot and sultry weather is favourable to them; the same conditions check the growth of the plant, and so the plant lice soon overcome it. Aphides are easily destroyed by spraying with a soft soap wash. In the case of bean aphis, the best plan is to cut off the tops of the Beans immediately the pest is noticed and burn or destroy in some way before the aphides can leave them.

Red Spiders or Spinning Mites are serious pests to get rid of when once they get a fair start. Fruit trees and bushes are frequently seriously damaged by their attacks, which are most prevalent during hot, dry summers. When a drought commences in June and there is a probability of it continuing, frequent syringings with cold water will often prevent an attack. When the webs are well established the most drastic syringing is often unsuccessful. The following wash is very effective when the pest has made its appearance. Mix 3lb. of soft soap and three gallons of paraffin with fifty gallons of water. The soap is dissolved first in boiling water and poured into the tub containing the paraffin, the whole being churned up with a syringe. The mixture is afterwards diluted to its proper strength. It is important that soft water should be used for this emulsion. Sulphide of potassium is also added at the rate of 1lb. to fifty gallons of wash. Apply two or three times in succession at intervals of three days, always with force.

The Cabbage Moth.—The caterpillar of this moth is a great garden pest. It chiefly attacks Cabbages and other greens. The moth appears during the whole summer. The eggs are laid on the leaves of plants and hatch in six or seven days. The method of feeding of the caterpillars varies according to the plant attacked. When the larvæ are on a Cabbage they eat their way into the heart of the plant and foul it with moist green excreta, which gives it a most disgusting appearance. When attacking Turnips and other plants it devours the leaves down to the midribs. When mature the caterpillar enters the ground to pupate. The pupæ give rise to mature moths during the following summer. Hand-picking is the best remedy, and should be practised when the caterpillars first make their appearance.

The Cabbage Root Fly—This little fly is a serious pest on all plants of the Brassica tribe. Attacked plants are checked in growth, their leaves discolour and the plant falls away. The females lay their eggs on the ground close to the plant, and these are hatched in a week or so, according to the weather conditions. The maggots make their way to the roots, which they feed upon. When full grown the maggots pass into the soil a little away from the attacked plant, and become pupæ. The first flies of the year appear for their egg-laying about the end of April, and there are probably three generations in the year. A useful remedy is a cupful of paraffin added to a pailful of sand, and the sand sprinkled once a week round the stems of the Cabbages.

The Celery Fly.—The larvæ of this fly cause injury to Celery, tunnelling the tissues of the leaves and feeding upon the soft juicy substance. This causes the leaf to blister, and after a short period it shrivels up and is utterly useless to the plant. Sometimes the plant is killed, or the Celery is small, green and bitter in flavour. The fly lays its eggs singly upon the upper surface of the leaves. The eggs are hatched in about six days, and the larvæ from them at once attack the leaves. In about fourteen days the larvæ change into pupæ, either remaining in the leaf or falling to the ground. Finely powdered soot or lime dusted over the plants while the dew is on them prevents the flies from laying their eggs upon the leaves. When the Celery crop has been taken from the trenches, the earth should be levelled and well dug, and the upper surface buried deeply to prevent the flies from coming up.

The Onion Fly.—When the leaves of the Onion plant become yellow and show signs of drooping, it is evident that the maggot of the Onion fly is at work. The flies commence to lay their eggs in April and May upon the lower part of the leaves of the Onion plant; these hatch into maggots in six or seven days, and burrow down between the sheathing leaves into the bulb, upon which they feed until it becomes rotten. The insect continues in the larval stage for fourteen or fifteen days, when it becomes a pupa, and the fly appears in from ten to twenty days later, according to the temperature. There are several generations of this insect in the year, the last batch passing the winter in the pupa stage in the soil of the Onion-bed. Autumn-sown Onions are not so liable to the attacks of this fly, and those that are raised in heat early in the year usually escape. Spraying the crop with the mixture as recommended for red spider is a deterrent to the fly laying eggs upon the plant, and a mixture of sand and paraffin will prevent the maggot from working down to the roots when placed round the bulb as recommended for the Cabbage root fly. Turning the ground over deeply after the Onion crop is removed should be done, as in the case of the Celery fly.

Good cultivation, a judicious rotation of crops and cleanliness in regard to weeds all tend against insect attacks. In the vegetable as in the animal kingdom it is the weak and unclean that are the most susceptible to attack. On badly infested soils heavy dressings of gas-lime applied in the autumn are very effective.

The Gooseberry Saw-fly.—This insect is very troublesome in Gooseberry plantations, and when once established it is difficult to eradicate. The flies appear early in May, and the females lay their eggs on the under sides of the leaves. In about six days the young are hatched and commence to feed on the foliage. In about four weeks the caterpillars are mature; they then crawl down the stem to the ground and form cocoons in the soil beneath the bushes. In about twenty days the adult flies appear and proceed in turn to their egg-laying. There are several broods in the year; the last remains in the cocoon during the winter to produce the supply the following spring. There are several dangerous washes effective against the feeding caterpillars, but the best remedy is to remove the surface soil from beneath the bushes during the winter to a depth of 2 inches and bury it deeply in a hole dug for the purpose. This will prevent the chrysalis ever reaching the surface and so destroy the supply.

G. H. WEBSTER.

Oak Cottage, Woolton, Liverpool.

BOOKS.

Lawns.*—This is one of the most practical books that have been published upon the formation and upkeep of lawns. Nothing has been left unsaid that the amateur or practical gardener desires, and if satisfaction cannot be obtained from this, then the wiser plan is to have no lawn at all. The contents range from an excellent introduction to the making and care of "putting greens" and "cricket grounds." Several illustrations of much teaching value are given. Here are remarks upon "mowing," which testify to the usefulness of the book: "*Mowing.*—Among the enquiries which reach us concerning the management of lawns, one of the most frequent questions relates to the height young grass should be allowed to attain before it is cut. Instances come to our knowledge where the plant is actually left untouched for an entire season. Lawn seeds are sown to produce a dense, short sward, not a crop of hay. On this point there must be no misunderstanding. Immediately it is possible the plant should be mown. Early cutting encourages the grasses to tiller out, and then roots begin to fill the soil; the mower and roller are brought quickly into use and contribute to the development of a smooth and even plant. The first cutting should be made with a sharp scythe, wielded by a practised hand. So far as a newly sown lawn is concerned, it is unfortunate that the skilful use of the scythe is a dying art. But it is none the less true this is the ideal implement for young grass. Indeed, the risk of injury from the mower, especially from a heavy machine, is so great that many experienced men condemn its employment until the plant is firmly established. Still, it is necessary in this, as in many other concerns of life, to face facts. We are sometimes told that there is not a man available who can cut fine grass with a scythe. In such cases the only alternative is the mower. Before using it, however, a trial on old grass will prove whether the implement is capable of making a clean cut without tearing up the plant. For this early work the machine should be moderate in size. Later on a heavier mower can be employed where desirable. In the judicious use of the machine lies one secret of maintaining a close sward. During severe winter weather cutting may not be necessary for several weeks. But early in the year, probably in February, the ragged plant should be mown, and as the season advances the need for more frequent cutting will be evident, until, in warm moist weather, mowing twice a week, and possibly, for a brief period, every other day, may not be too often. No definite rule can be stated upon this point; but the grass should never be allowed to wear a neglected appearance, nor should the work be postponed to a more convenient season." Minute information is given upon soil, drainage, grass slopes, weed seeds in soil, sowing, bird scares, worm casts, mowing, rolling, fairy rings, moss in lawns. A capital little book.

† "Lawns." By Sutton and Sons. Published by Messrs. Simpkin, Marshall and Co., Limited. Price 1s. May be obtained from Messrs. Sutton and Sons.

THE GARDEN.

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CONTENTS.

GARDEN PATHS AND HOW TO MAKE THEM 85

NOTES OF THE WEEK
Forthcoming events 86
Gift of land for Kilmarnock park 86
A Rose show in Bournemouth.—Generous gift 86
Edinburgh public parks 86
An exhibition of intensive culture 86
Tomatoes in Scotland: A show dispute .. 86
Bournemouth Gardeners' Society's coming-of-age 86

CORRESPONDENCE
Fumigating with cyanide of potassium 86
Euphorbia Characias 87

GARDENING OF THE WEEK
For the South and South Midlands .. 87
For the North and North Midlands .. 87

GREENHOUSE
Spineless Opuntias .. 88
Single Chrysanthemum Eureka 88

FRUIT GARDEN
Melon-growing in frames and houses 89

FLOWER GARDEN
Daffodil notes 89
Plants suited to dry soils 90

ROSE GARDEN
Roses at the last September show .. 90
A rambling Rose .. 91
Rose jottings 91

KITCHEN GARDEN
Notes on vegetables . 91

GARDENING FOR BEGINNERS
Garden work week by week 92
Hot-beds and how to make them 92
Early Carrots 93
Ventilating frames .. 93

THE TOWN GARDEN .. 93

New plants 94

BOOKS 94

ANSWERS TO CORRESPONDENTS
Greenhouse 95
Trees and shrubs .. 95
Fruit garden 96
Miscellaneous 96

SOCIETIES 96

ILLUSTRATIONS.

Spineless Cacti 88
One of the single Chrysanthemums: Eureka 89
Sempervivum Funckii aqualiensis at Kew 90
A mass of Rambler Roses in a Surrey garden 91
Hot-beds and how to make them 92, 93

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

GARDEN PATHS AND HOW TO MAKE THEM.

PATHS which are intended to take a considerable amount of traffic have necessarily to be of a more or less formal character, for not only has upkeep to be considered, but the convenience of the users has to be studied; therefore good wearing material must be used in the construction, proper drainage must be ensured, and the shortest possible route should be taken between certain points. If no obstacles are in the way, such paths should be as straight as possible; but if a curve has to be introduced, it should be a bold one, and some special feature in the curve should be apparent to account for the detour. In very small gardens, straight paths are usually preferable to curved ones, for in such instances space is too limited to admit of a bold curve, and the curve develops into a wriggle.

There are, however, places where wear and tear is light, being limited to occasional pedestrian traffic, and in such cases the formal path can be given up and a novelty introduced. Such paths may be introduced with great advantage into the wilder parts of the garden, and no great expense is needed in the making. The principal point to notice is that they are sufficiently dry for a lady to walk on during ordinary weather, and to ensure this strong-growing subjects which hold moisture should not be planted in the vicinity, and naturally damp places should be made passable by means of stepping-stones. No attempt need be made at forming straight paths, but every turn should look natural and a special subject be placed in the curves. As a rule, it will not be found necessary to make the path up with special material; the natural soil may simply be roughly levelled over so that no inconvenient holes are apparent; but on no account should the natural contour of the ground be interfered with, dips and rises being left as they are found.

Should a slope be very steep, the ascent ought to be along the face of the hill in a slanting direction, then back at a higher level, and so on to the top of the hill in a zigzag manner. No attempt need be made to keep these paths free from plant-life; in fact, plants of various kinds are to be encouraged, particularly those of a dwarf, tufted character, which will not be seriously hurt if they are walked upon. Coarse weeds, however, should be removed as they appear. No definite width, moreover, is required, and there is no reason why a mass of any particular plant should not be allowed to encroach here and there a foot or more over the pathway. Should the path pass through rocky ground, large masses of rock may jut out at intervals and be clothed with suitable rock plants. In some places the pathway may be of rock, with crevices here and there, and in such a case a fine opportunity is opened up of introducing masses of Saxifrages, Aubrietias, Pinks and other plants.

When the path passes through a wood, Ivy or Periwinkle may be allowed to trail across it, or masses of Hypericum calycinum may encroach here and there. Primroses scattered about are effective, and though some may be injured, many will escape. The Heather and Ling can be effectively used, for if the ground is fairly firm, growth is not very rapid and it does not suffer very seriously if walked upon. The path may, however, be made in such a way that very little traffic will be actually over the shrubs, for they may be allowed to advance and recede so that the path winds about among them. Should a wet place occur in the course of our path, stepping-stones 6 inches or 9 inches high may be introduced, and between them dwarf Rushes, Marsh Marigolds, Primulas, Sundews, Ferns and any other moisture-loving subjects may be planted. Where the path has to cross a stream, the space may be bridged by trunks of trees laid longitudinally in the direction of the path, either in the rough or squared, so that they will lie close together. Sawn planks may, of course, be used if they can be obtained, but the bridge should be as informal as possible. The margins of the brook may be made interesting by the inclusion of marsh-loving plants, such as Japanese Irises, Iris sibirica, the Royal Fern, Sedges, Rushes, Primula japonica and other things.

Some time ago a delightful path was noted in a Dorsetshire garden, where sandstone cropped up at intervals through the ground, which was carpeted with Thyme. This kept quite dwarf and was not seriously injured by traffic, for with a little care the journey over the greater part of the route could be made on the stone. The effect was charming and the scent delightful. With a border of Lavender such a path might be worth trying, especially in gardens where sweet-smelling plants are encouraged.

In the event of steps being necessary in our path, those of an informal character should be used. If the path is passing through woodland, good strong Oak branches may be laid for the fronts of the various steps and the treads be formed of the ordinary soil of the vicinity. To keep the branches in position, stakes can be used. The appearance of the steps may be improved by introducing dwarf Ferns, Mosses or Primroses into crevices between the logs. Should the steps be

required in a position where stone would look better, rough blocks may be used; there is no necessity for the steps to be of uniform height and width. As in the case of the wooden steps, plants may be used between the stones. In this case, however, the dwarf Saxifrages, Aubrietias and similar kinds can be requisitioned. In some places flagstone pavements may be preferred, and in such a case fairly wide crevices should be left between the stones. In these spaces it is then possible to insert many low-growing subjects which will in time take away the formality of the path. The Thyme and Saxifrages will come in useful again in such a case.

When dealing with shallow water, a series of large stepping-stones may be introduced, with water plants here and there between. Water Lilies can be seen to advantage when a person can get about among the plants, as may be done in the case of moderately shallow water and large stepping-stones. These will afford a few ideas of the manner in which informal paths may be effectively introduced into the garden; but many more will doubtless suggest themselves to the owners of gardens. W. G.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 22.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1—6 p.m. At three o'clock the Third Masters Memorial Lecture by Mr. A. D. Hall, M.A., F.R.S. Horticultural Club Annual Meeting, 5 p.m.; Annual Dinner, 6 p.m., Hotel Windsor, Victoria Street, Westminster, London.

An exhibition of intensive culture.—We have received the following note from the Stour Valley Gardening School, Sturry Station, Kent: "An exhibition will be held in the Royal Horticultural Hall, Westminster, on Wednesday, March 23. It is hoped that those interested in this special outdoor industry will contribute to its success. To those who can furnish a stall themselves we shall be pleased to allot space free or to receive contributions, large or small, towards a general stall. The exhibitor's card will be displayed with each individual contribution. The following will be the principal articles exhibited: Lettuces, salads, Cauliflowers, Cabbages, Radishes, Carrots, Turnips, Peas, Beans, Asparagus, Rhubarb, Mushrooms, Strawberries, &c. The schedule will be published later with particulars of the opening of the exhibition and distribution of prizes and medals."

Edinburgh public parks.—Since the appointment of Mr. J. W. M'Hattie as headgardener to the Edinburgh Corporation several years ago, vast improvements have been made in the city gardens. At a meeting of the parks committee the other day, a proposal by Councillor Arbuthnot Murray to form a rock garden at the Blackford Quarry and garden plots adjoining was under consideration. It was ultimately agreed to refer the question to Mr. M'Hattie to consider and report. An additional bowling green at Portobello was also recommended by the committee. The committee also agreed to recommend that leave of absence be granted to Mr. J. W. M'Hattie to attend the Haarlem Jubilee Flower Show, for which he had been appointed by the Bulb Growers' Society as a member of the jury of judges.

Bournemouth Gardeners' Society's coming-of-age.—Councillor T. K. Ingram of Parkstone presided at the annual meeting, when the usual business was transacted. After passing the statement of accounts, the president, vice-presidents, hon. secretary, assistant-secretary, trustee, treasurer and librarian were unanimously re-elected. A few changes were made in the formation of the committee. The annual meeting marked the coming-of-age of the society, which has done a vast amount of good in the town and district in the way of encouraging residents and others to take a keen interest in horticulture. A good programme has been arranged for the first session of the year, the lectures being of an interesting character. Mr. J. B. Stevenson, the hon. secretary, was chiefly responsible for the formation of this society, and has been a staunch supporter of it during the past twenty-one years. Some time ago an appreciation of his services was shown by the members, who presented him with a handsome gold watch. All the officials were heartily thanked for their services during the past year, and a similar honour was accorded the chairman, who conducted the meeting in a very able and genial manner.

Gift of land for Kilmarnock park.—Lord Howard de Walden has just handed over to the Town Council of Kilmarnock five acres of land to be added to the Dean Park. The other portion of the park was previously given to the community by Lord Howard de Walden, and his renewed generosity is much appreciated, the addition to the Dean Park being a most useful and acceptable one.

A Rose show in Bournemouth.—Generous gift.—W. C. Clarke, Esq., Michelgrove House, Boscombe, Bournemouth, has very kindly suggested that a Rose show be held in his own gardens on July 1, and has promised the funds for the prizes. The members of the Bournemouth Gardeners' Society, in which Mr. Clarke takes much interest, highly appreciate his generosity, and are looking forward with much pleasure to the visit to his beautiful and well-kept gardens.

Tomatoes in Scotland: A show dispute.—An interesting point was raised at the annual show at Scone, Perthshire, in the autumn, when Mr. N. Macpherson was awarded a prize for four Tomatoes, but was disqualified on the ground that the visiting committee were of opinion that the Tomatoes were not of Mr. Macpherson's own growing, and withheld the prize. Mr. Macpherson threatened to bring an action against the committee, but it was finally agreed to ask an expert to arbitrate upon the matter. Mr. E. Joss, superintendent of gardens, Montrose, a thoroughly qualified man, was selected as arbitrator. A lengthy proof was taken by Mr. Joss, who finally gave his verdict in favour of Mr. Macpherson. In his decision Mr. Joss pointed out how Tomatoes can be successfully cultivated in a cold frame, this apparently being the question at issue. By the treatment recommended, Mr. Joss holds, plenty of ripe Tomatoes can be had by the third week in August.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet Pea Evelyn Hemus.—Having had the privilege of visiting the grounds of Miss Hemus on two occasions last summer, I can confidently endorse this lady's remarks on page 38 respecting the behaviour of this splendid Pea with her. No one could have failed to admire the condition it presented, row after row without a visible rogue and in perfect character, without the much complained of streak, and considering the quantity of blossoms that the plants carried, gave great credit for the standard of the exhibits that Miss Hemus staged, the blossoms being gathered from these heavily laden haulms. My experience has led me to agree with the statement that this variety resents an excess of manure, especially in a cold season like the past year, and, like the majority of other varieties, does best when autumn-sown in favourable counties. Last year in these gardens one row of Evelyn Hemus among others did remarkably well from an autumn sowing, and proved true in character until late in the season. The ground had been well worked 2 feet deep, and a very moderate amount of manure used, the soil being a light sandy loam. I had others of this variety sown in pots in February and transplanted on heavily manured ground, deeply trenched, the soil being of the same sandy nature as that for the autumn sowing, but these proved inferior in every way. Your correspondent "Spencer," had he seen this Sweet Pea at Holdfast as I did the first week in June and mid-July, would have found it behaving contrary to his remarks on page 30. It is only in justice to the merits of this discussed variety that I feel it a duty to state my experience.—H. FRENCH, *Forthampton Court Gardens, Tewkesbury.*

An effective combination.—I saw last autumn Clematis Jackmanii flowering profusely and rambling away among shapely plants of Acer Negundo variegata. The bed was 15 feet by 8 feet and upon grass. The effect was distinctly good, as the dark purple blossoms of the Clematis contrasted so well with the silver-edged leaves of the Maple. In such a combination it is necessary to restrict somewhat the growth of the Acer and to well manure the roots of the Clematis, thus inducing them to grow vigorously, as the stronger the plants flourish the more numerous and fine are the blossoms.—E. M.

Mealy bug on Vines.—I should like to say how I have cleared a vinery of this pest. The house is 45 feet long and ten Vines are planted in it. They are very old and could not have been in a worse state. I get all loose bark off the Vines, especially the spurs and round the eyes, then wash with Gishurst Compound, and afterwards paint with the following mixture: Get some clay, and with water make one gallon to the consistency of paint; to this add half a pint of gas-tar, thoroughly mixing. With a half worn-out paint-brush paint the Vines all over. It will not hurt the buds, but the mixture must be constantly stirred while using. I have done this for two seasons and have just cleaned my Vines, and do not see any sign of mealy bug upon them. I always thoroughly wash the house. I hope this may be of use to others, and I shall be pleased to answer any enquiries through THE GARDEN.—F. B., *Hants.*

Fumigating with cyanide of potassium.—Would you be so kind as to favour me with particulars as to fumigating with cyanide of potassium for destroying mealy bug; if you can recommend it as being effectual in the one application, or would more be required; also, if the cyanide would be destructive to ordinary greenhouse plants? My wish is to use it in a cool conservatory where mealy bug is very troublesome. If you could kindly favour me with these particulars I should be most pleased. I believe, in measuring a house to obtain the number of cubic feet, the rule is to multiply the length by the breadth and then by the average height.—W. G. [In connection with a query from "W. G.," the Editor requests details of "cyanidising" vineries with the object of destroying mealy bug. First of all, it is imperative to repeat a warning regarding the danger to life attending the use of the above method, it being believed that one inhalation of an impregnated atmosphere would be fatal; hence the need not only of precautions against breathing the poison, but also of keeping collected while operating. The best periods to cyanidise Vines is in spring, just before the breaking of the buds, and in autumn, in September and October, when the leaves are perfectly matured. One application, while it will destroy all the living insects, will not exterminate them, because in a day or two others hatch from eggs, and these, too, must be treated, letting a week or so elapse between the applications. Once in autumn and once in spring, if the right times are gauged, will be enough. The materials are measured by the 1,000 cubic feet of air to be impregnated, and a rough-and-ready way of

obtaining the cubic area is to multiply the length of the structure by its width and the height to the eaves. To that add the amount contained in the sloping part of the house. The materials required are water, sulphuric acid and cyanide of potassium at 98°, though cyanide of sodium at 130° is also used. If the structure is small, one receptacle, which should be of basin shape and of earthenware, will do; but if the house extends to 25 feet or more, one or more receptacles will be needed. Decidedly the best time of the day to operate is towards evening and preferably in cold, damp weather, a low temperature being almost essential. The quantities to use are one of cyanide to two of sulphuric acid to four of water, but a fair quantity of water may be used. To destroy bug on Vines, 3oz. to 4oz. of cyanide to the 1,000 feet of air are required with the other materials in proportion; but while the leaves are on the Vines 3oz. only should be used, and for plants 2oz. to 2½oz. The method of operating after the close shutting of all apertures in the house to be filled is to arrange the receptacles at suitable distances apart, first having the cyanide and sulphuric acid put up in proper quantities for each. Water to the required quantity is then placed in each receptacle, then the sulphuric acid emptied into each and stirred with a stick. The cyanide lying ready wrapped in brown paper is then dropped into them one after the other, the operator moving as quickly as possible and leaving the structure without a moment's delay once the last packet is dropped, shutting and locking the door behind. By wrapping the cyanide in stout paper, there is no need for any of the ingenious tilting expedients from the outside, the production of fumes being delayed a little till the paper has been consumed. A 4oz. dose will have done its work in twenty minutes, a 3oz. one may have forty minutes, and in the case of greenhouse plants, at 2oz. per 1,000ft., there need be no particular time for opening the ventilators, which, if liked, may be left closed till the next morning. To ventilate the structures set open the doors; then, if the gearing machinery is close to the door, open the front ventilators, and in a little while, covering the mouth and nostrils with a handkerchief after taking a deep respiration, meanwhile holding the breath till once more in the air, open the top ventilator. "Putting on air" is really the dangerous part of the operation. I may add that, unless for dirty Grape Vines, I would not recommend cyanidising, vaporising with nicotine at the strength it is now sold being preferable for plants, or spraying with one of the perfectly prepared insecticides, such as Bentley's Insecticide, which, properly applied, kills all kinds of insects and scales. But do not expect to effect their destruction with one application of any of these!—R. B.]

Euphorbia Characias.—I should like to thank your several correspondents for their answers to my question about Euphorbia Wulfenii. The Rev. W. W. Flemyng asks whether Euphorbia Characias and E. Sibthorpii are as good as E. millifera and E. Wulfenii. I have no knowledge of E. Sibthorpii, but make much use of E. Characias. The question as to relative merit I cannot exactly answer, because the plants have quite different uses. E. Wulfenii is a large thing, 5 feet to 6 feet high, of the boldest aspect and of colour effect when in bloom. E. Characias is much smaller, under 3 feet when at its best, and the leaves and flowers, except for some darker markings about the flowers, are nearly of the same colour. Its chief value, in my own practice, is as a between-plant of quiet blue-grey colouring in colour-schemes of purples, whites and pinks, the common Rue and Clematis recta (out of bloom) doing the same work. Another use for E. Characias is in open, sunny, half-wild places, where the object is to have plants that are, so to say, personally interesting, but that are not exactly showy in the way that is desirable in the main occupants of flower-borders.—G. Jekyll.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Gardening Under Glass.

CUCUMBERS.—Seeds that were sown as advised early in January will by this time have formed plants large enough to either pot on or plant out. A good bottom-heat is necessary in the shape of a hot-bed, in addition to fire-heat. If it is intended to fruit the first batch in pots, they should be plunged in the bed as soon as they can have the final pot. In planting out, make small mounds of soil and put the young plants in instead of repotting. It is quite a mistake to have too much soil to start with; top-dressings can always be added as soon as the roots appear on the surface. A suitable compost for Cucumbers is a mixture of fibrous loam and horse-manure. A night temperature of 70° must be maintained to keep them growing freely.

Melons.—With the exception of soil, the same remarks apply for these as for Cucumbers. The soil for Melons ought to be a good stiff loam, made very firm before planting. There is no reason why Melons should not be grown in the same house as Cucumbers. The same treatment is required till the fruits begin to ripen, when it is necessary to keep them drier.

Kitchen Garden.

Peas.—A good sowing should now be made in the open. Early Giant and Laxtonian are both excellent varieties. Make the drills flat at the bottom, 3 inches to 4 inches deep. A more even distribution of the seed is obtained this way than by having the ordinary V-shaped drills. The distance between the rows must be determined by the height of the variety. Avoid overcrowding. The space between may be utilised for Spinach or Lettuces when the Peas are fairly dwarf.

Broad Beans.—More of these may be sown, choosing a variety of the Early Longpod section. A little wood-ash placed round those sown in autumn will protect the plants.

The Herbaceous Borders.

Any rearrangement that is required must be attended to without delay. Good judgment must be brought to bear on the work. Colour must be studied as well as the varying heights of the subjects. A clump of Campanula persicifolia, with yellow Iceland Poppies in front, gives a very pleasing effect. Helianthus Miss Mellish, Anemone japonica alba and Salvia patens go well together. Pyrethrums are very showy, the single varieties more so than the double. Slugs are very fond of these, and a little Slugene dusted round the clumps will save the young growths. Incarvilleas and Ostrowskias are making a start, and one must be very careful not to injure the growths when attending to other plants growing near. Much has been done in the improvement of the Heucheras, and there are now some fine varieties which should have a place on every border.

Wall Gardening.

The undermentioned plants will be found suitable for growing in walls: Antirrhinum glutinosum and A. Azarina, Erinus, Edelweiss, Dianthus in variety, Androsace lanuginosa, Aubrietias, Alyssum, Sedums, Sempervivums, Silene Schafta and S. alpestris, Linaria alpina and L. alpina rosea, Saponaria ocymoides splendens, Saxifragas in large variety, Arenaria montana and A. grandiflora, Armerias, Arabis albida fl.-pl., Veronica prostrata, Cheiranthus alpinus and C. Marshallii. Regarding the Edelweiss, as it is rather short-lived in our climate, it is best to raise a batch of seedlings annually.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

Broad Beans.—If part of a warm south border can be spared, a few rows of this useful vegetable should now be got in. The old Early Mazagan is very suitable, being very hardy and giving a crop earlier than the larger sorts. If space is abundant, a few rows of Milecross Monarch should be put in at the same time, and will provide a fine succession to the other.

Spinach.—Sow this valuable vegetable at frequent intervals, and in quantity according to requirements. At this early date the seed should be sown more thickly than during the summer months, as slugs very often attack the young leaves immediately they show through the ground. A good strain of the old round-seeded sort is as good as any for early work, but later in the season Victoria and Monstrous Viroflay are superior, providing very large, thick leaves.

Forcing Vegetables.—Where forcing is carried out, constant attention to the frames is necessary. Airing requires to be seen to, and great care has to be exercised to prevent scorching during days of bright sunshine. When cold winds are blowing, always try to tilt the sash at the end opposite to that from which the wind is coming. The making of the necessary hot-beds requires a large amount of time and labour. The soil should be put in the frames a few days before the seeds are sown so that it may be warmed through. This greatly aids germination and, of course, eventually gives earlier crops. Mat well at night during cold weather.

Herbs.—New plantations of the perennial kinds should now be made. Very rich ground is not necessary, but soil in fair heart should be chosen. It is a good plan to correctly label all herbs, as very few people know one from another, and often the kitchen-boy has considerable difficulty in knowing what to cut when he gets his orders from the cook. It is also a good plan to leave a piece of vacant ground alongside the perennial herbs in which to cultivate the annual kinds. This keeps all this class of plants together, and is obviously a benefit in many ways.

Flower Garden.

Laying Box Edgings.—Where any of the Box edgings have got out of order, now is the time to attend to them before the rush of seed-sowing and planting comes on next month. This is one of the most laborious of gardening operations; but fortunately most young gardeners take a pride in doing it well. Where it has been properly done before, the work is much lightened, as the ground will be level; but when on a former occasion the laying of the edging has been carelessly performed, much time and patience are necessary to get all put into a neat condition. It is hardly necessary to enter more fully into details of this important work, as every trained gardener has had his share of it at one time or another; if he has not, he is more fortunate than the writer, who must have laid many miles in his day.

Other Edgings.—Very few other plants are so serviceable as Box for edgings, although some, like our garden Pinks, Auriculas and Primroses, are very beautiful and effective during their flowering season. They all, however, require much more attention than the Box, and are so much easier damaged with feet or tools, besides being even worse harbours for slugs and other vermin. A very beautiful edging for large herbaceous borders is made by forming a sort of dwarf, narrow rockery along the front, and planting with low-growing or creeping alpines like the Mossy Saxifrages, Aubrietias, Lithospermum prostratum, dwarf Campanulas and others. This form of edging should not be made too formal in outline, or the effect will be spoiled. More attention should certainly be paid to edgings.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE GREENHOUSE.

SPINELESS OPUNTIAS.

THE ordinary kinds of Opuntia, or Prickly Pear as they are familiarly called in Texas and other places, are well known by reason of their flattened, or occasionally almost cylindrical, intensely spiny branches; but there are a few sorts from which the spines are almost or entirely absent, and examples of these are shown in the accompanying illustration. It seems difficult to find any authentic information as to how these spineless forms have originated, though some people claim to have helped in the matter by selection and cultivation. An allied genus called Nopalea has much in common with Opuntia so far as branches go, but the spines are few in number or entirely absent, and this genus may have helped in the production of the so-called spineless Cacti. Some of the species of Nopalea are N. coccinellifera, N. angustifrons and N. dejecta.

SPINELESS CACTI: OPUNTIA FICUS INDICA VARIETIES BEARING FRUIT AND O. INERMIS IN THE CENTRE.

To us in England it may appear a small matter as to whether an Opuntia bears spines or not, but to the farmers or ranchers in Texas, Louisiana, Mexico, Queensland, South Africa and other places it is of vital importance. In some arid regions, particularly in Texas, Opuntias form an important article of fodder, especially in the winter season, and it is said that in some parts, were it not for the Prickly Pear, stock would have to be reduced by one-half under favourable conditions, while in times of excessive drought cattle life would be almost impossible without this plant. The spiny character of the Opuntia, however, causes a great amount of work, for cattle are unable to get at the succulent stems unless the spines are first removed. Even after a certain amount of work has been done, the spines are often imperfectly got rid of, and great pain and suffering is caused to stock by the mouth, tongue and nostrils becoming full of spines.

In Bulletin No. 74 of the United States Department of Agriculture (Bureau of Plant Industry, March, 1905) a good account of the uses of Prickly Pear for stock feeding is given, and various preparatory methods are described. A rough-and-ready way is to chop up the stems, either with an axe or spade or by machinery, into squares from 1 inch to 2 inches across. With these cotton-seed meal is mixed, and animals are fed twice a day. Another method is to go over the bushes as they stand and slash off as many as possible of the spines; the cattle follow on and browse on the cleared branches. This method is said to result in very dense, impenetrable hedges in places. Other ranchers light a wood fire and lay the branches on. The spines are very dry and inflammable, and quickly burn. The branches are then turned over so that both sides are cleared. They are then given to cattle. In still other cases a flare lamp or gasoline torch is used to burn off the spines as the plants stand. The best method, however, appears to be to steam the branches, and the method is described by which a large quantity may be done at once. After steaming for ten hours the spines were quite harmless. Any one of these methods, however, entails endless work and expense, and the production of spineless forms in quantity would be a boon to ranchers.

In the places where Opuntias grow naturally, and in those where they have been naturalised, grass is often scarce, and to import hay would be almost impossible for a large stock of cattle, while hay-fed cattle require a fair amount of water. On the other hand, the Opuntia grows rapidly in hot, dry regions, and its succulent branches enable stock to do with the minimum amount of water. When stock are first fed on Prickly Pear, they are said to become very bloated, so that the advice is to commence with small quantities. In full feed anything from 56lb. to 100lb. of Pear and 2lb. to 3lb. of cotton-seed meal may be given per day. In the above-mentioned bulletin an experiment is mentioned where a number of cattle were fed on 55·03lb. of Pear and 2·5lb. of cotton-seed meal a day each for 105 days, and the average gain in weight per animal per day was 1·75lb. Other experiments are quoted relative to milking cows, which prove that satisfactory results regarding milk and butter are obtained from feeding with these plants.

The two outer pieces of plants shown in the illustration are supposed to be a spineless form of the common Prickly Pear (Opuntia Ficus indica, or O. decumana as it is sometimes called), and the other has been given the name of O. inermis. When the value of the Opuntia is appreciated as a foodstuff, it will be readily understood what a boon spineless forms would be to ranchmen, and it is to be hoped that these spineless forms will retain their present character and adapt themselves to the natural conditions of growth under which the spiny species luxuriate. The main question would appear to be whether the spineless forms will withstand intense sun-heat so well as the spiny forms.

Opuntias are among the easiest things imaginable to grow, for every section of branch will root, while if the flat sections are cut up into pieces, each piece will form roots and a separate plant. In some countries to which they have been introduced they have become so abundant as to be a nuisance. In this country, except in a few cases, the Opuntias and their allies require indoor culture. A few dwarf-growing species may, however, be cultivated on rockwork in the warmer parts of the country.

The fruits as seen in the accompanying illustration are those of the Prickly Pears of commerce. In some countries they are used largely for their cooling properties. Another use to which some of the Opuntias and the allied Nopalea coccinellifera are put is as host plants on which to cultivate the celebrated cochineal insect. Mexico was formerly the centre of the industry, but the Canary Islands, parts of the Mediterranean region and other places now participate in the trade. Many hundreds of tons of the insects are required annually to satisfy the world's demand for the famous colouring matter.

D.

SINGLE CHRYSANTHEMUM EUREKA.

THIS pure white graceful single Chrysanthemum is one of the most decorative varieties I know, and when well grown is much admired, both as a pot plant and when the flowers are cut. This variety is a vigorous one, as will be seen by the illustration. We had about a dozen similar plants, and each would measure about 6 feet by 6 feet if staked out. The cuttings were rooted in January and potted on in due course. The plants were fed with Le Fruitier and Bentley's Manure, and syringed every fortnight with sulphide of potassium, which I consider the best preventive of rust, but it must be applied regularly. The plants were stood on a hard bottom, exposed to the sun all day, and syringed every afternoon when no rain had fallen. I consider single Chrysanthemums very effective for decorative purposes and a change from the large blooms. I am not saying anything against large blooms, because I like them as well as the singles. A good bowl of large blooms one night and of singles the next makes an effective change, especially when about eighteen large blooms are used in a huge bowl.

Another fine single variety is Cannell's White. This was admired and coveted by everybody, and when grown well and disbudded it makes large but graceful flowers. A charming companion is Cannell's Crimson, a beautiful flower by artificial light. Good flowers can be obtained from the varieties Mrs. F. S. Vallis, Sir William Acland, Mrs. F. W. Vallis and Charles Becket if grown in bush form. I grew them in this way last season for trial, and the experiment proved eminently satisfactory, as many had fifteen to eighteen flowers of large size. The same culture should be extended, and all the stems disbudded for the production of first-class flowers. One stake only should be used for each plant, and the shoots strung up with matting,

as was done with the one shown in the illustration. It is a mistake to utilise the room in the pots with such a lot of stakes, as one sometimes finds, to say nothing of piercing and mutilating the roots when inserting the stakes.

The Gardens, Leonardslee. W. A. COOK.

THE FRUIT GARDEN.

MELON-GROWING IN FRAMES AND HOUSES.

A LARGE increase in the cultivation of the Melon among the amateur gardeners of our islands has been witnessed during the past few years. The ever-increasing interest manifested by all classes of society to cultivate some kind of garden produce—fruit, flower or vegetable—and the many excellent varieties of Melons placed on the market by the leading firms have served to bring about the conditions just named.

The season of 1909 was not one of the best for Melon-growing in frames, owing to the absence of sun and the cold, wet days which so frequently occurred during the whole year; consequently, many growers had to acknowledge failure, especially where material for hot-beds was limited and the heat from linings was not well maintained. Another source of failure with many frame-grown Melons is making too early a start in the spring and getting the plants starved in their early stages of growth. It is better by far to wait a month and go right ahead without a check.

Many growers of Melons select March as a month in which to commence operations with hot-beds and frames; but unless a good supply of fermenting material can be depended upon, it would be well to defer the work until the middle of April. Materials should be got together and thoroughly mixed by frequently turning them over during a period of two or three weeks previously. The frequent turnings get rid of a lot of the fiery heat generated by the mass and sweeten the whole ready for making up into a bed. Two good heaped cartloads of manure to a frame-light is none too much material with which to make a start. The bed should be 5 feet to 6 feet longer and wider than the frame used, so as to allow plenty of room for heaping hot material round the sides. This latter precaution is very essential in the early stages of the work, as sudden sharp snaps of frost may be experienced during April and May. Mats also should be used to conserve the heat by night, and only in the very hottest months of the year should these latter and linings be dispensed with.

Soil for Melon-growing, if good and strong in quality, needs but little addition in the way of manures or fertilisers. Placed in heaps of about a bushel, or in ridges, under the centre of each light, a few days before planting, it will become thoroughly warmed, and when the bed has fallen to a temperature of about 80° planting may be proceeded with, either using plants raised beforehand in pots, or two seeds may be sown in each heap, subsequently selecting the strongest of the two plants to remain. The plants should be pinched at the second rough leaf, and the two new shoots again pinched at about the fifth or sixth leaf, afterwards allowing the plants to run, when fruiting blooms will be freely formed upon the next lot of shoots produced. Select four to six of the best of these blooms, as nearly alike as possible, and fertilise on a bright morning towards eleven o'clock, when the plants and blooms may be expected to be dry. Keep the plants from overcrowding by pinching all superfluous growth clean out.

Watering is an important factor in Melon-growing and must be attended to at all times, using tepid water both for the roots and for syringing purposes. A light spraying morning and afternoon up to the time the blooms are ready for fertilising, and then again after it is seen they are swelling freely, will keep insect pests in check, but must be discontinued immediately colouring begins. Frequent top-dressings will help the plants immensely, and should be applied as soon as the white root tips show through the mounds of soil.

Melon-growing in houses is far easier and attended with better results usually than is experienced under preceding conditions, owing to the heat being better controlled. Hot-water pipes usually run under the slate bottom on which the bed is placed, thus ensuring a uniform temperature at the roots, while the rest of the house is heated by other pipes placed conveniently for the purpose. A small bed is made up on which the mounds of soil are placed, and the plants are trained to trellis wires overhead. Before pinching the plants let them reach the top of the trellis first and then pinch, after which they will make side growths all the way up.

Proceed as for frames in the matter of selection and fertilisation, watering, top-dressing, syringing, &c., also remember that Melons like a fair amount of fresh air during all stages of growth, and rarely need shading as do Cucumbers. February is quite early enough in the year to begin Melon culture in houses, and but little good will result from earlier beginnings as compared with a February start.

Varieties are numerous and, to the uninitiated, present a difficulty in selection as in other phases of horticulture. Hero of Lockinge is an old favourite, and needs no comment except that it holds its own with the best of the new-comers both for quality and ease of culture. Sutton's Triumph and Sutton's Scarlet are both excellent varieties either for house or frame. Webb's New Masterpiece and Pride of Stourbridge are two reliable varieties and worth a trial. The Paris Cantaloupe has come to the fore somewhat since the recent French gardening boom, and may be grown in a cool frame, but for flavour will not compare with any of the previously mentioned varieties, and it may be grown under cooler conditions. One other variety which should appeal to the amateur who has a frame but no heating material is Sutton's Open-air Scarlet-fleshed Melon. We grew six plants last season in frames without any heat whatever, and gathered twenty-five nicely ripened fruits of good flavour averaging from three-quarters of a pound to 1½lb. in weight. It is said to be hardy and will fruit in the open air during a normal summer, but of this I cannot speak. Under glass it did well and repaid all the trouble taken with it.

J. C. WADD.

The Gardens, Ratcliffe House, Knighton, Leicester.

ONE OF THE SINGLE CHRYSANTHEMUMS: EUREKA.

THE FLOWER GARDEN.

DAFFODIL NOTES.

EARLY FLOWERS IN POTS.—Last autumn I potted up some Golden Spur from Holland and some from the Channel Islands on the same day, and since then they have lived under precisely similar conditions. The result is what I have so often observed before, viz., that the Dutch ones were a few days later than the others. I feel convinced that those who cater for the public do not realise the great difference that there is in early and late ripened bulbs, or they would advertise the fact in their lists. Later on in the season the difference is not nearly so marked. Another factor which was brought to my notice some years ago is that there is a difference in the flowering time of bulbs that have been one and two years in the ground. The latter are the earlier. This fact may sometimes account for some bulbs flowering so much in advance of others in the same pot.

Double White Narcissus Going Blind.—I have been asked if there is any cure for this. As far as I know, there is none. I have tried planting in different positions and in both light and heavy soils, and the result has always been much the same—a certain proportion will go blind, do what I will. I always say that there is a fortune waiting for the grower who can solve this problem satisfactorily. Perhaps some readers of THE GARDEN will give us in the next week or two their experience. I imagine the best results will be found where the soil is on the heavy side, rich and deep, and where the position is cool.

Shows, 1910.—I hope in the course of two or three weeks to refer to this subject at greater length than I do now. Two or three new Daffodil shows are to be held this year, and then there is the great Jubilee Bulb Show at Haarlem. I visited a similar but, of course, a very much

smaller show at Hillegom last spring. Dutch bulb shows are not always affairs of one or two days in some hall or tent, as ours are in England, but more often large open spaces or parks are planted, wherever it is possible, with larger or smaller masses of different varieties and species of flowers. In the one at Hillegom, in addition to the other kinds of bulbs, there were about 100 varieties of Daffodils, which could thus be seen and studied under more or less normal garden conditions, and their habit, floriferousness, time of flowering and general effect noted for future use. The great Jubilee show will be on the same, but far more ample, lines, and a visit on one or more of the four occasions when the display out of doors will be augmented by what we Britishers usually call "a flower show" will amply repay the cost and time of a journey to Haarlem.

Another show to which I would particularly call attention is the Forced Bulb Show of the Royal Horticultural Society at Vincent Square on March 8 and 9. As one of those who urged the trial of such a show last spring, I feel a pardonable pride in knowing that the council considered it such a success that they have marked their appreciation of its value by extending it this year from one to two days. It is related of a famous Scotch millionaire that he sent for his minister when he felt his end approaching, and asked if he thought a gift of a few thousands for his church would have any effect on the future. "I don't know," quoth the minister, "but it is an experiment well worth trying." So say I to those who are wondering if a visit to the Forced Bulb Show will repay them and if they will be able to get any "wrinkles" or "tips" when they are there: "I don't know, *but it is an experiment well worth trying.*"

JOSEPH JACOB.

[These notes will be continued at frequent intervals during the Daffodil season.—ED.]

PLANTS SUITED TO DRY SOILS.

A DRY, sandy soil may, of course, be made more retentive and fertile by intermixing with it a quantity of strong loam and manure; but seldom can a favourable result be obtained without much labour and expense. It is, therefore, often advisable, and sometimes necessary, that plants suited to the natural soil be chosen rather than that the soil be made to accommodate the plants. In these notes a short list of suitable plants is given, and attention is drawn to the commoner characteristics of drought-resisting plants, so that readers to some extent may be enabled to judge for themselves whether a plant they admire is likely to thrive on a dry soil. One of the commonest means plants have of surviving drought is that of producing exceedingly long roots, which obtain moisture from the subsoil when the earth near the surface is parched and dry. Good examples of this section are to be found in the Cistuses, Helianthemums, Tamarisks, Cytisuses (Brooms), Oriental Poppies, Japanese Anemones (Windflowers), &c. This deep-rooting tendency is sometimes coupled with that of swollen roots, in which moisture and food are collected and stored, as in the case of Gypsophilas and Pæonies. It is also often possible to tell whether a plant can withstand drought by the formation of its foliage. Nature sometimes prevents undue evaporation through the leaves by covering them with hairs and woolly substances, as in the case of Artemisias, Miller's Dust and many of the Salvias. For the same reason leaves are sometimes coated with a thin layer of wax, which gives them a blue tint. Foliage of this kind is said to be glaucous. Fleshy swollen leaves are a well-known sign of drought-withstanding properties. This tendency is to be found in its most exaggerated form among tropical Cacti, but it also exists among more hardy subjects, Houseleeks, Stonecrops, &c., being good examples. Plants from the sea-shore, such as Sea Pinks, sometimes called Thrift, and the Statice or Sea Lavender, are suitable for dry soils. This may at first seem strange, as the two groups named often grow so near the water that they are partially submerged daily; but vegetation can only absorb salt water very slowly, so that, though these plants always have a good supply of water at hand, they are really almost always dry.

As a whole annuals are well suited to dry land; but Sweet Peas are a notable exception. These will, of course, thrive on a light soil if it be deeply dug and well supplied with manure and water, but they are quite incapable of surviving lengthy periods of drought. On the other hand, the Purslane (Portulaca grandiflora) and the Mesembryanthemums, on account of their swollen leaves, and the Eschscholtzias, owing to their deep-rooting habits, are to be particularly recommended.

Nearly all spring-flowering bulbs will grow and thrive on dry soils, for they die down before drought sets in. American Dog's-tooth Violets and the little Narcissus cyclamineus are exceptions to this rule, and Liliums flowering during the summer months must also be considered apart. All stem-rooting varieties, such as L. auratum, should be avoided, but such as L. candidum (the common garden Lily) which root from the bulb only, appreciate drought in moderation. To summarise, annuals, bulbs and plants with long, deep or swollen roots, woolly, glaucous or swollen fleshy leaves, and plants which grow on sea-shores are, as a rule, well suited to dry soils. There are, of course, a few exceptions, but these are not numerous.

The Cistuses, Tamarisks and Brooms previously mentioned are particularly satisfactory, and will thrive even on a bank of gravel; in fact, such a situation is preferable to one more fertile, for unless these plants are starved they frequently grow freely, but produce no flowers. Other shrubs nearly as good are Box, Berberis, Furze, Olearias, Hypericums and Forsythias. Thorns, Pines and Beech are among the most suitable of trees. In addition to the herbaceous plants given as examples, Eryngiums or Sea Hollies, Polygonums, Pinks, Arabis, Aubrietias and Stachys lanata deserve recommendation; but of small plants the Houseleeks (Sempervivums) are worthy of special note, for, as the illustration shows, they will grow almost without soil on the bare face of the rock. The common Houseleek (S. tectorum) is handsome, but the one illustrated, a variety of S. Funckii known as S. F. aqualiensis, is more floriferous. S. tristis, with bronze leaves, is very effective, and S. arachnoideum (the Cobweb Houseleek), a small species with grey leaves, over which a delicate network of web-like hairs is formed, possesses a decided charm.

L. G.

A PLANT FOR DRY SOIL: SEMPERVIVUM FUNCKII AQUALIENSIS AT KEW.

ROSE GARDEN.

ROSES AT THE LAST SEPTEMBER SHOW.

"SAYS a critic, when commenting on the recent September (autumn) Rose show of the National Rose Society of England: 'Looking round the show, one could not help noticing how our old friends the Tea Roses have lost their pride of place; it does not seem so long since Teas were beside the Hybrid Teas. The day of Teas is to a large extent over, and for ordinary outdoor culture we do not need many of them when the Hybrid Teas are so much hardier, and when they are their equal in every kind of colouring and far superior in size. The Hybrid Perpetual is also, more or less, a vanishing quantity, though we shall probably not be in a position to discard such varieties as Mrs. John Laing, Ulrich Brunner, Captain Hayward and others, which will readily occur to one's mind. I should have mentioned Hugh Dickson and Frau Karl Druschki, but am doubtful if these have not as much right to be called Hybrid Teas as Hybrid Perpetuals.'" Commenting on the dressing of Rose blooms, it is mentioned: "The worst feature of the show was the over-dressing of the blooms, the most noticeable example being the second-prize stand in the premier class for thirty-six blooms, which, although it contained the finest blooms in the show, was relegated to second

place, because, as one of the judges said, the flowers looked like Water Lilies instead of Roses."—*Journal of Horticulture* (Australia).

A RAMBLING ROSE.

THE accompanying illustration shows the beauty of a rambling Rose when the plant is allowed full play. Its growth is tremendous, so much so that strong stakes are necessary to support the flower-laden stems. We have never seen a richer abundance of blossom. The photograph was kindly sent by Mr. Martineau of Esher.

ROSE JOTTINGS.

WITH the advent of brighter and seasonable weather, work among our Roses will increase rapidly, and so will the anxieties about the first crop of flowers under glass. All growers will readily admit the all-important need for light and as much sunshine as the plants can stand when we are so favoured; but it is none the less advisable to give a slight break against the glare of sun through clear glass at midday during early spring. Sheltered from the cooler outside atmosphere, this glare is sometimes very trying to young growth, especially if it comes suddenly after several days of dull weather. And yet it is full early to whiten or otherwise shade the glass except during these short and rare periods. A few sheets of paper may be tacked up inside the house for an hour or two with very little trouble, and will well repay for the attention. To allow young growth to droop or otherwise show distress is harmful. Considerable help can be afforded by damping the paths and borders or pouring water between the pots, giving a very slight overhead sprinkling as soon as safe from sun-burning. This is much better than admitting outside air to ease the rising temperature, and does not run so great a risk of mildew. Of course, as the season advances, so will the attacks from insects, and I only wish to remind others that we cannot begin to battle against these too early.

As soon as the flower-buds are visible, liquid manure will be very useful for pot plants; but do not give this to those growing in borders without being sure they have a thorough soaking. There surface watering is not sufficient, nor does it need doing so frequently as is often practised if we do it freely upon fewer occasions.

In a number of cases a climbing Rose is planted in such a position that a great number, often the majority, of its roots are growing in the outside soil, and it is only reasonable to cover this with litter or stable manure. If a few boards can be laid on this, so as to tilt off excessive rain, it will be better. Cold moisture is out of character with the roots that must be active to feed the growth progressing under quite different conditions.

The growing laterals from the shoots of climbers should not be allowed to touch the glass, which carries such extremes of temperature, or the most important part, the tips, will be injured at the cost of many blossoms. It will pay to untie and arrange a few inches further from the glass. If a sharp spell of frost sets in, I find it a good plan to fasten a mat over the glass when it is very close to the Rose growth. Very little cover will keep the glass from being frozen when helped by the inside heat. The avoidance of checks to growth is a great factor among forced Roses, and it pays to take this little extra care upon a few occasions.

Roses want a free drainage when in pots, but it is not necessary to take up so much room with potsherds as some do. Half-inch bones can be used after the first well-laid crock is in position, and will give food and afford capital drainage. That the roots of Roses appreciate this class of drainage is clear by the free way in which they grow among the bones. The ammonia from liquid manures obtained from the stable or cowstall is a great help to the foliage when it can be used without detracting too much from the grower's pleasure, but care must be taken not to spatter the liquid upon any young foliage. In the open dwarf stocks for budding upon during the coming summer should be planted now. Do not plant deeply, but draw some soil around the stems to help them for a time, which can be removed when budding. A. P.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

MINT IN BOXES.—Amateurs who are specially desirous of having an early supply of this indispensable herb can easily secure it by lifting strong, healthy roots from the garden and putting them in boxes, with a little loamy soil, in the greenhouse. Absolutely no trouble beyond that indicated, which is practically none, and keeping the soil pleasantly moist is involved, and the results are sure to meet with the approbation of the ladies of the family.

SHALLOTS.—During recent years the large Russian or Jersey Shallots have gained immensely in favour among exhibitors; but those who desire to grow perfect bulbs, suitable for pickling, will always pin their faith to the old-fashioned English variety, which grows in clusters and is so excellent in all important respects. Compared with it the big ones are of little or no value other than as Onions, and when these are required it seems natural to grow one or more of the many excellent varieties in commerce. To grow Shallots well they must go into good soil some time during February, and the earlier the planting can be done the better. Deep cultivation, to encourage perfect root action, is essential, and there must be an abundant supply of available food in the ground. Provide these conditions, make the soil moderately firm, press the bulbs well down until the apex is just clear of the surface, and in due course there will be splendid clusters of small bulbs, which are admirably adapted for their special purpose—pickling. Although early planting is so desirable, no attempt must be made to do the work until the soil is in proper condition, or the results will be the reverse of satisfactory.

JERUSALEM ARTICHOKES.—Whether these will become a nuisance or remain a valuable vegetable garden crop will depend largely upon the grower. If they are not planted afresh, and the land thoroughly cleared of even the smallest tuber each year, they will come up in all directions and worry the tidy gardener; but, properly treated, they will provide a most useful change crop for winter, and the plants during growth will form a very serviceable screen in the garden. Tubers of good shape should be planted 12 inches to 15 inches asunder in lines 4 feet to 5 feet apart in February, and the site must previously have been thoroughly prepared by digging; but fresh manure is neither necessary nor desirable in land in good heart.

ONIONS FOR EXHIBITION.—No time must be lost in sowing the seeds of Ailsa Craig or other favoured Onion to produce heavy bulbs for exhibition during the forthcoming season. Boxes at least 9 inches in depth should be utilised, and the compost may consist of three parts of loam and one part each of sweet manure and leaf-mould, with a sufficient addition of sharp sand to ensure perfect porosity. The surface must be made firm and level, and the seeds should be set 3 inches asunder in all directions. After sowing place the boxes in the greenhouse and maintain the soil in a pleasantly moist condition at all stages, for if once it becomes as dry as dust one may just as well give up all hopes of producing the finest bulbs, since it appears to be impossible to persuade the plants to grow quite clear of the check thus given. In no circumstances must the plants be hurried along, and as they make progress they should be kept well up to the glass to prevent a drawn growth. The earlier they can be removed with safety from the greenhouse to the cold frame the better, but the fact that uninterrupted progress is absolutely essential to success must never pass from the mind of the cultivator.

EARLY PEAS.—The amateur who possesses a greenhouse and a cold frame ought to know that he has the conveniences necessary to grow Peas which will yield excellent pickings at least two weeks in front of spring sowings out of doors. The trouble is little and the returns so gratifying that one wonders why all do not adopt the system. Sowings can be either in boxes or pots, according to convenience; but the former are better as providing more root-room and economising space in the house. Set the seeds 3 inches asunder, keep the soil moist, grow the plants sturdily, remove them to a cold frame as early as possible, plant out in April, and the crop will be more than welcome. H. J.

A MASS OF RAMBLER ROSES IN A SURREY GARDEN.

GARDENING FOR BEGINNERS.

THE MAKING OF HOT-BEDS.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—In those gardens where the soil is naturally well drained and of a more or less sandy character a sowing of Parsnips may be made towards the end of the week, providing, of course, that the bed is in a suitable condition for sowing. Make drills an inch or rather more deep and a foot apart and scatter the seeds thinly in them, taking care, if the wind is very strong, that they do not get blown away. For this early sowing it is a good plan to prepare some finely sifted soil of a sandy nature (old potting soil answers well) for covering the seeds, which are less likely to rot when treated thus. Rhubarb and Seakale outdoors should be covered with pots made for the purpose, or, failing these, old tubs or boxes may be used. Around and over these pack a good thickness of fresh stable manure. The heat caused by the fermentation of this will do much to forward the desired crop of leaf-stalks. The present is a good time to make new plantations of Rhubarb, selecting medium-sized roots with good bold crowns for the purpose. The soil should have been previously deeply dug and heavily manured.

Flower Garden.—It is a good plan at this time to go over the Primrose and Polyanthus plants and mark a few that show signs of shortly producing a heavy crop of flowers. These may be lifted with good balls of earth and roots and potted into pots just large enough to take them with a little new potting soil of ordinary character added, taking care to make this firm. After potting, stand the plants in a cold frame for a week or so, after which they may be taken to a cool greenhouse, where they will quickly open their blossoms and provide a brilliant display for a very small outlay of time and trouble.

Rose Garden.—Providing the weather is not very cold and frosty now, the protection afforded to bush and standard Roses may be partially or totally removed, otherwise it is likely to do more harm than good. The buds which are protected are likely to commence growing, and then when they are uncovered later, and cold winds are experienced, they will in all probability be severely injured. What we must aim at is to keep the buds at the bases of the shoots dormant until all fear of injury by frost or cold winds is past, a task that is not always an easy one. The protecting material should be kept near the plants, so that it can be replaced should very cold weather supervene.

1.—AN ORDINARY HEAP OF MANURE, QUITE UNSUITABLE FOR A HOT-BED UNLESS PROPERLY PREPARED.

Greenhouses and Frames.—The present is a busy time in this department. All bedding plants in frames must be given attention, picking off all dead leaves. They will require more water now than they have done in the past. Ventilate freely, whenever the weather is fine, those frames containing such plants as Calceolarias and Pentstemons, and on very bright days the lights may be entirely removed. Zonal Pelargoniums for bedding that were rooted in boxes should now be potted up singly into 3-inch pots, using soil composed of loam two parts and sand one part for the purpose. Old plants that were potted up and kept over the winter will by now have made new growths, and where there is likely to be any shortage these shoots may be taken off, made into cuttings, planted separately in small pots of sandy soil, and placed on a shelf near the glass in a warm greenhouse. Under these conditions they will quickly root, and may subsequently be grown on for bedding-out at the end of May. They will not make such large specimens as those rooted in the autumn, but they will be most useful for mixing with the larger plants and so help to fill up the beds. Seeds of Lobelias and Verbenas should be sown without delay, or, where cuttings from old stock plants are available, these should be taken and planted at once. Use sandy soil for both seeds and cuttings. In the case of that beautiful Verbena Miss Willmott, the cuttings ought to be planted in pure silver sand, which must be kept moist. This variety does not produce seeds, and for this reason it must be propagated by means of cuttings, which are not easy to root in the ordinary way. A. A.

HOT-BEDS AND HOW TO MAKE THEM.

In gardens of any size, glass houses and erections of a varied character are to be found. They have their uses in all seasons, and they are especially valuable in the early months of the year, when so many plants and seedlings are raised under the artificial conditions that are made to prevail therein. Not seldom, the one or more greenhouses are unduly crowded with numerous tender subjects in February, March and April, simply waiting for the more genial weather of late spring, when many of the occupants may be transferred to cold frames to harden off preparatory to planting them in beds and borders outdoors when all danger of frost is over. In such circumstances the use of a hot-bed is an inestimable boon, as by its aid it is possible to propagate many of the tender bedding plants that still find favour in numerous gardens, and seedlings in great variety may be raised with comparative ease in this simple creation.

Many amateur gardeners and others are deterred from making a hot-bed because they do not know how to proceed. The present is an excellent period in which to begin operations, and, if the hot-bed is to be all that the beginner hopes it will be, it is of the highest importance that the work should be properly done. In almost every garden accommodation may be found for a hot-bed, and, as a load or two of good horse-manure is the chief factor in its creation, there should be little difficulty in obtaining this at a small cost. Those readers who do not know how to go about it may, upon enquiry at any local stables, usually arrange for a few loads of manure to be delivered at a suitable time, and if hard weather should prevail so much the better, as the roads and paths are less likely to be damaged when the ground is frozen hard.

The horse-manure should be used as it comes fresh from the stables. If the weather is very wet, it is a good plan to cover the heap with sacks or any other rough material to carry off the rain. As soon as convenient after the delivery of the manure, the heap should be turned over thoroughly in order to give it a good mixing. To teach the beginner how to proceed I have endeavoured to illustrate the making of a hot-bed from the commencement. Fig. 1 shows a load of manure just as it is shot out of the cart. Not only should the heap be turned over, but each forkful should be given a thorough shaking so that the straw and manure become evenly mixed, and then placed in a heap to ferment. After an interval of two or three days the heap should be turned over again, giving each successive forkful of the manure a thorough shaking as before. Endeavour to build the heap in conical form, and in the process place the outside

2.—A HEAP OF HORSE-MANURE IN COURSE OF PREPARATION FOR A HOT-BED. NOTE THAT IT IS BEING WELL SHAKEN UP AND THAT LEAVES ARE BEING MIXED WITH IT.

material into the centre and *vice versâ*. This process should go on for a week or more, by which time the heap should be uniformly moist. I should have mentioned earlier that in the event of any of the material being unduly dry, it should be moistened by the aid of water applied with a rosed can.

It is well to point out here that, were the heap used as it is for making the hot-bed, the heat would very probably be too severe. This is always the danger with rank stable manure; it invariably causes the bed to heat excessively for a short period and then to go cold. Careful gardeners usually try to avoid the state of affairs just alluded to, and check this by mixing with the manure leaves in good quantity or, if these are difficult to obtain, vegetable refuse, &c., in almost equal quantity. The incorporation of these materials with the manure has the desired effect of retaining the necessary heat, and the prospects of a successful issue become brighter in consequence.

Fig. 2 shows the heap in preparation, in which it will be observed leaves are freely mixed.

3.—METHOD OF MAKING A HOT-BED. THIS SHOULD SLOPE FROM 4 FEET AT THE TOP END TO 3 FEET AT THE BOTTOM END.

Our next concern is the actual making of the hot-bed, which is accomplished by spreading out the manure on a piece of ground of sufficient dimensions to accommodate the frame it is intended to place on the hot-bed. An excellent size for a frame is 6 feet by 4 feet. When spreading out the manure allow a margin all round the frame of at least 1 foot. I prefer a lining of from 2 feet to 3 feet, and those who can provide this space should do so, as it is a distinct advantage. Each layer in turn should be spread out evenly and be well beaten with the back of a garden fork. Proceed in this fashion throughout, layer after layer, as before, until the height of the bed is about 3 feet. To complete the operation, add manure to the surface so that the hot-bed slopes from about 4 feet at the back to 3 feet high at the front; this manure should be beaten firmly as each layer is placed in position.

Fig. 3 portrays the prepared hot-bed, now quite ready for the frame to be placed thereon. Note its firm appearance and its comparatively neat and even finish. Any beginner following these instructions should build a hot-bed equally well.

The final operation is to place the frame in position on the hot-bed, and this is a very simple matter. Lift the body of the frame in position, so that it is adjusted evenly over the bed, and also that the margin of the hot-bed may be equidistant all round. To keep the temperature even and close, the light should be placed on the frame, but care should be taken to see that the light is either pushed down a few inches at the top or propped open as shown in Fig. 4. It is a good plan, when all is finished, to thrust a stick a few feet in a slanting direction into the centre of the bed. This stick should be inspected each day by withdrawing it. If violently hot, return it to the same place as before; but when the day arrives that the stick may be held without discomfort, then the hot-bed may be used forthwith. A hot-bed of this description should retain its heat for quite two months or more. It may be used for many purposes.

D. B. C.

EARLY CARROTS.

In dark-coloured soil on warm borders early Carrots may be raised with comparative ease if the soil be of a light nature, very open and gritty. The best way, however, is to make up a nice hot-bed which will afford a gentle, steady heat until the young seedlings are about 3 inches high and duly thinned out. On the hot-bed, soil which has been passed through a half-inch mesh sieve must be placed to a depth of 9 inches at least. Sow seeds of the Early Horn types broadcast, and thin out the resultant seedlings to 2 inches apart at an early stage of their growth. Of course, a frame must be placed on the hot-bed, but in April the glass lights may be removed, and at the end of that month the frame also. Carrots always form roots better and quicker when the tops are exposed to moderately strong winds from the south and south-west.

VENTILATING FRAMES.

As the springtime comes nearer we must expect warmer weather accompanied by cold east winds. I have often, in past years, noted the beautiful tender new growth made during a warm spell of weather in spring, and then noted with much disappointment the crippled state of the foliage owing to the prevalence of east winds for a few days, a week or more. In the open air we cannot do much to protect the leaves, but under glass we can and should.

The inexperienced grower of plants must at this season duly study the weather conditions, as all plants under glass are more delicate than those growing in the open air. The ventilation of the frames is a very important matter. The sun may be shining strongly and the interior of the frame will be, in consequence, very warm; but it is a great mistake to open wide the ventilators or glass lights and let in a rush of cold, nipping air. Some air must be admitted before the temperature in the frame has risen much above the normal, and if this is done there will be little need to open the lights very wide even at midday, when the sun-heat is highest. The lights, if movable, should be tilted a little on the side opposite to that from which the wind blows; then the plants will not be exposed to the direct current of air.

SHAMROCK.

THE TOWN GARDEN.

CHOICE SHRUBS.—The word "choice" is here employed advisedly, inasmuch as the only shrubs that appear to be known to the building speculator and contractor, as well as a certain type of the jobbing gardener, begin and end with Laurels of certain kinds and golden and green leaved Privet, the last-named being used with such frequency that, were it permitted to flower each year, whole districts would be unbearable because of its sickening odour. There are shrubs, however, choice and beautiful—goodly to look upon and in many instances fragrant—that are well worth the attention of the town dweller, and that make a display despite the fog, the soot, dust and other deleterious accumulations inseparable from town habitations. I am referring now more distinctly to deciduous flowering shrubs as opposed to those of an evergreen type and which are not so well suited to the circumstances one has in mind. Hence, the town-dwelling amateur would do well to bear in mind the greater value of the deciduous shrub for his particular purpose, for the shrub that casts its leafage each year also casts off the impurities such leafage collects and retains. One objection to the deciduous type of shrub is the obvious bareness of stem in winter, but which, I think, is more than compensated by the display of blossoms later on.

SOME KINDS TO GROW.—If I name a few only of the most serviceable from out of a rather lengthy list, all more or less equally good, it is because the amateur shall not be confused when I intended to assist. The fragrant Daphne Mezereum is everywhere delightful, even in January, while a little later on we have the yellow Forsythia suspensa, the rich glow of yellowy orange afforded by Berberis Darwinii, the white and coloured Lilacs and the indispensable Ghent Azaleas, which alone provide a feast of colour beauty impossible of description. These are a few among those whose flowers appear somewhat early in the year, thus adding a greater value to their unmistakable charm. The Azalea bed, too, may, if well prepared, contain Lilies, and in this way provide a permanent, as well as a most delightful, feature. These Azaleas prefer very sandy loam, or this with peat and sand in mixture, the Lilies also preferring a similar soil mixture.

THE CAMELLIA.—Many readers would hesitate to plant this subject in the open, yet in not a few instances it would care for itself and be infinitely more happy in a sheltered spot in the open air than it is often in the greenhouse. As a shrub of hardy nature, too, it has much to recommend it, and given protection from north and east, the plant often surprises by its rude health, vigour and free flowering. For many years some big bushes stood in the open in the old days of the Chiswick Gardens, a district not to be regarded as favourable to plant-life generally. Old plants that have finished flowering should be given a chance to recoup their energies by planting them in the open in a sheltered position in a well-drained bed of loamy soil. April is a good time for such planting.

THE DAHLIA.—The old stools of these should be examined from time to time to see if they are free from signs of decay. Where young stock is required, a few plants may be brought into the greenhouse and afforded moisture and increased warmth.

MARGUERITE CARNATIONS.—The Marguerite Carnation is practically indispensable to those who garden chiefly in the open air, and valuable alike because of its simple cultural requirements and its cheapness. Indeed, a shilling packet of seeds obtained from a reliable source would, with care, yield a sufficient number of plants for a large-sized bed. Beautiful and varied in colour, the compact bushes of plants when in flower appeal to all, while their artistic merit and diversity of form gain them many admirers. The plants are seen to the best advantage in a bed alone, and fifty or a hundred plants so seen are not likely to be forgotten. Sow the seeds at once in boxes or pans of sandy soil, quite thin sowing being particularly recommended. Seedlings that are overcrowded or choked in infancy cannot possibly give the best results at flowering-time. It should be remembered that these plants develop rapidly in their early stages; hence the early pricking out of the seedling plants is a matter of considerable importance.

E. H. JENKINS.

4.—THE FRAME IN POSITION. THERE SHOULD BE A MARGIN OF MANURE AT LEAST 2 FEET WIDE ALL ROUND THE FRAME.

NEW PLANTS.

CATTLEYA PERCIVALIANA WESTONBIRT VARIETY. A very attractive and rich-coloured variety with flowers of exquisite shape. The rather narrow sepals and broad, slightly reflexing petals are bright rosy mauve in colour, the labellum being very rich carmine crimson with rich yellow throat, the much-crimped margin being the same colour as the sepals and petals. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire. Award of merit.

Brasso-Cattleya Wellesleyæ.—A very beautiful and nearly pure white flower resembling more the Cattleya family than the Brassavola. The sepals are rather narrow and lanceolate, the petals being about three times as broad and all pure glistening white. The labellum is large, spreading and pure white, with the exception of a small rich yellow blotch in the throat. Shown by J. A. Wellesley, Esq., Woking. Award of merit.

Dendrobium Duchess of Albany.—A very delicate and free-flowering hybrid. The colour of the flowers may best be described as a delicate mixture of rosy mauve, white and cream. These are of medium size and do not differ materially in shape from those of D. wiganianum, which is one of the parents. Shown by Sir Jeremiah Colman, Bart., Gatton Park, Surrey. Award of merit.

Cypripedium leeanum Excelsior.—A rich-coloured variety of this well-known Cypripedium. The dorsal sepal is large and rather hooded, the band of pure white being extra deep. The labellum or pouch is rather large and very highly coloured, resembling to some extent a piece of highly polished mahogany. Shown by A. J. Bromilow, Esq., Rann Lea, Rainhill. Award of merit.

Crinum purpurascens.—This is a showy and interesting species long known to cultivation, the plant producing a tuft of some twenty or so channelled, slightly waved or undulated, acutely pointed leaves, which are rather more than 2 feet long and about 2 inches broad, and from which issues the reddish-coloured flower-scape, bearing an umbel of eight or nine flowers. The red-coloured perianth tube is about 6 inches long, cylindrical; the drooping linear segments, which are 5 inches long, are white on the inner surface and coloured externally. The species is one of a numerous family requiring a stove temperature, and is not difficult of cultivation. At flowering-time the plant is rendered conspicuous by the rich colouring of the flower-scape and perianth tubes, and, the same colouring being extended to the filaments, the white colour of the perianth segments is seen to still greater advantage. A native of Old Calabar and other parts. Shown by Sir Trevor Lawrence, Burford, Dorking. Award of merit.

All the above were shown before the Royal Horticultural Society on the 8th inst., when the awards were made.

BOOKS.

The Culture of the Chrysanthemum.*—This excellent little book is well known among growers of the Autumn Queen, and the demand for it has been so large that Mr. Wells has now issued the fourth edition. This has been enlarged and thoroughly revised so as to bring it quite up-to-date. Such a famous grower as the author can, of course, write with the fullest authority on the subject, and his style is an interesting one. The history of the flower, its culture for exhibition, for decoration, early flowering varieties, single Chrysanthemums for pot culture, and insect and fungoid pests are fully dealt with, and such little-understood phrases as stopping, timing, crown and terminal buds are explained in a lucid manner, the black-and-white sketches and photographic reproductions assisting very considerably in this direction. This book should be in the hands of all who grow and exhibit Chrysanthemums, and professionals as well as amateurs will find a vast amount of useful information among its pages.

Longmans' wall pictures.—Messrs. Longmans, Green and Co. have sent a series of beautiful coloured reproductions, from water colours by Mr. Archibald Thorburn, of familar wild flowers in bloom from April until June, one drawing for each month. Such excellent reproductions of the work of a well-known artist are of the greatest instructive value for schools and the nursery, and should be especially interesting to children who, perhaps, have never seen a wild Rose or the Buttercup. Moths and butterflies, which issue forth at the same time as the flowers depicted, give further interest to these large and handsome plates. The prices are: 2s. 6d., unframed; 7s. 6d. in oak frame, glazed; and per set of ten in portfolio, £1 10s.

The Garden Fayre.—This charming book, or booklet—whichever one is pleased to call it—is described as "an occasional magazine, published by Sutton and Sons, Reading." The cover in colour is praiseworthy, showing a garden in which the misty bloom of the flowering trees makes a colour of soft hues, and throughout the illustrations are well reproduced, with accompanying practical hints of the greatest value. A charming illustration is given of "Antirrhinums," and in the article concerning them it is mentioned: "Antirrhinums may be grown as half-hardy annuals or as perennials. As half-hardy annuals, seed should be sown in January or February, and the seedlings be grown on for transplanting in May. After flowering it will save trouble to consign the plants to the waste-heap, and again raise a sufficient supply to fill their places the following spring. Tall Antirrhinums, when grown as perennials, should be sown in June and July. These will stand the winter and come into flower earlier than plants from spring-sown seed. They may be left in the border to come up year after year if so desired; but they do equally well as half-hardy annuals; and if treated in this way it is better to make a fresh sowing in the spring of each year."

* "The Culture of the Chrysanthemum." By W. Wells. Fourth edition. Price 1s. 6d. post free. Messrs. W. Wells and Co., Merstham, Surrey.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

THE GREENHOUSE.

Freesia roots a failure (*D. Macdonald*).—It is impossible to state with any degree of confidence the reason of your Freesias behaving in the way they have done. First appearances pointed to their having been kept out of the ground too long and to being kept too dry after potting; but as they were potted in August and, according to your letter, were at no time too dry, this could not have been the cause. We are, therefore, forced to the conclusion (especially as we have had other examples brought under our notice) that the chief cause of the trouble arises from the fact that the bulbs were not sufficiently ripened last summer. You do not say whether the bulbs were grown by you or not, but we take it that they were purchased. Though to all appearance plump and sound, they may have been wanting in the all-important process of ripening. The weather last summer was, in many districts at least, entirely opposed to the successful ripening of bulbs, and your Freesias may have been grown where these adverse conditions were very pronounced.

Zonal Pelargoniums to flower in August (*H. Jones*).—You give no particulars of the plants you have, if any, and the conveniences for growing them, both very necessary items in giving advice. We will, therefore, assume that your plants are now good and sturdy in pots 3 inches to 4 inches in diameter. If so, they should be shifted at once into 5-inch pots, taking away as much of the old soil as can be done without unduly disturbing the roots. The compost employed must mainly consist of fibrous loam of moderate consistency, lightened by a little leaf-mould and sand. Well-decayed manure is helpful, but it is so liable to be infested with insects that many prefer to supply the manure in liquid form later on. The plants being potted, they should be placed in a good light position in the greenhouse and given a free circulation of air whenever possible. Care must be taken not to over-water immediately after potting, but the supply must be increased as the roots take possession of the new soil. The plants must be stopped when necessary in order to lay the foundation of bushy specimens, and the shoots pulled outwards by means of stakes. With such treatment the plants will by May be well established in their pots, and they can then be shifted into the pots in which they are to flower. For this purpose pots 7 inches or 8 inches in diameter are very suitable, the potting compost being the same. They must then be given plenty of room in a well-ventilated structure, and turned round frequently in order to ensure even growth. As the flowering plants get well furnished with roots, liquid manure occasionally will be helpful. The flowers should be picked off up to a month or five weeks before the plants are required for the show. It will be a great advantage to gum the petals, especially of the single varieties, otherwise many of them are apt to drop when moved.

Raising Kochia tricophylla (*S. D.*).—There is no special treatment required to raise seedlings of Kochia tricophylla, as if the seed is good it germinates freely when treated as an ordinary half-hardy annual, that is, sown in slight heat. If your friends failed we should say that the quality of the seed was perhaps to blame, or it may have been allowed to get too dry just as germination was commencing.

Treatment of Solanum Capsicastrum (*F. A. M.*).—When a Solanum flowers during the winter months berries are but rarely formed, as a light, buoyant atmosphere is very essential to the proper fertilisation of the flowers. Besides this, the natural fruiting season of this Solanum is in the autumn, as expressed by its popular name of Winter Cherry, and it is as such that it is most appreciated. We advise you to repot your plant in March and grow it on in the greenhouse. If it has a tendency to become straggling, the shoots may be shortened back before the potting is done. Such a plant will flower freely in the summer and set its berries well, so that it should form a very attractive feature next autumn.

TREES AND SHRUBS.

Flowering shrubs in pots for plunging outdoors (*Myosotis*).—Some of the shrubs you mention are hardly suitable for your purpose. Hamamelis virginica, Pyrus Malus, P. baccata, Rhododendron ciliatum and the double-flowered Blackthorn may be classed as unsuitable. The Rhododendron is not sufficiently hardy for the position you mention, while the remainder are unsuitable for pot culture. In addition to the remaining subjects which you mention, the following are worth trying: Forsythia suspensa, Spiræa arguta, S. confusa, S. canescens, S. Mrs. Anthony Waterer, Erica mediterranea hybrida, E. cinerea, Ghent Azaleas, Rhododendron fastuosum flore-pleno, R.

The Queen, R. John Waterer, R. Mrs. Wm. Agnew, R. Mrs. R. S. Holford, R. Mme. Carvalho, Berberis stenophylla, Ribes sanguineum, R. aureum, Philadelphus Lemoinei erectus, P. microphyllus, Lilacs in variety, Escallonia philippiana, Cornus Spæthii and Daphne Mezereum. You will probably find that you will soon have to dispense with pot culture and plant them in the open border, for they are not likely to thrive in pots for a very long period.

Plants for growing under trees (*Henfield*).—For general purposes you will find that the common Ivy is the most satisfactory subject to plant beneath the shade of trees, and if that will not grow, nothing will. The choice of shrubby subjects is limited and may be confined to Ivy, Hypericum calycinum, Vinca minor, V. major and Euonymus radicans and its varieties, with the various species of Ruscus as taller-growing subjects. The great point in covering ground beneath trees is to give the plants every attention regarding water for the first year. Insert fairly small, well-rooted plants thickly during autumn or early spring, and in the event of dry weather occurring in summer give water freely.

Low-growing shrubs for bed near house (*Wickwar*).—If you require one kind of shrub only for your bed, you cannot do better than plant Philadelphus Lemoinei erectus. It is an excellent shrub for a bed, blossoms freely and has fragrant, white flowers. It is, however, deciduous. Should you require a mixture, we would advise Olearia Haastii, Berberis wallichiana and Osmanthus ilicifolius as evergreens, and the above-mentioned Philadelphus, Spiræa arguta, S. Mrs. Anthony Waterer, Daphne Mezereum, Prunus japonica flore-pleno, Escallonia philippiana and Magnolia stellata for deciduous shrubs. An all-evergreen bed could be made very effective by planting it with gold and silver variegated Tree Ivies. These could be kept to a height of 2 feet if desired.

Information about Skimmias (*W. Swire*).—You can only find out which of your Skimmias are male plants by the flowers. If you examine the flowers when open, you will find that the male forms have stamens and pollen with no pistil, or only a very rudimentary one, while in the female flowers the pistil is well developed and the male organs absent or imperfect. It sometimes happens that female plants do not fruit on account of imperfect pollination. If you find that you have a number of female plants, transfer pollen from a male plant to the female flowers with the aid of a camel's-hair brush. It is a common thing to find male plants in an unduly large proportion to female, especially if purchased from a large batch, for many of the female plants may have been removed for pot culture.

Laburnum not flowering (*W. L. H.*).—It is more than probable that the non-flowering of your Laburnum tree is due to lack of nourishment, the excessive flowering of two seasons ago having exhausted it to a considerable extent. Whether it should be cut back at all will depend on the contour of the tree and the position it occupies, for, once they attain flowering size, Laburnums will bloom freely for years without any pruning. The principal thing you can do is to supply the nourishment that is undoubtedly wanting—hence the ground around the tree as far as the spread of its branches may be broken up with a fork as much as can be done without injuring the roots, and then a 6-inch dressing of loam and well-decayed manure should be applied, giving it a good soaking of water occasionally in order to wash the nourishment into the soil. While the above will greatly benefit the specimen, it is quite probable that after two years it has to a great extent recovered from its excessive flowering, and may possibly this year, even if untouched, bloom well.

FRUIT GARDEN.

Pruning Apricot trees (*W. F. Holt*).—Generally Apricot trees fruit on the well-ripened wood of the previous year's growth; hence all the best of such shoots as will easily layer should be saved, the points which are not hard being cut off. In the case of small inner shoots, these should be shortened back to three or four buds. In the spring all shoots which break out direct from the fronts of the branches, or all those that do so from behind, should be rubbed off, as these are of no use. The old Moor Park bears rather more on spurs on the old wood than others, and pruning may be harder. Still, on the whole, it is best to treat all the varieties alike. Too hard pruning often causes Apricot branches to suddenly die away.

Apple shoots for inspection (*R. C. B.*).—The shoots that you send from Cox's Orange Pippin are very soft and unripe, and will be of no use if left on the tree. You must cut all such shoots back close to a plump bud where the wood is firm. The fluff that you speak of is no detriment in itself to the tree, but, of course, it will be removed with the soft wood on which it exists. You may find it on short, hard spurs growing out from the sides of branches, but these you must not cut away; you need not worry about the fluff that is there.

Painter's knotting for use in grafting (*M. H. F. S.*).—We have had no experience in this matter. Grafting-wax costs so little that it would scarcely be wise to risk failure in grafting by substituting one for the other. As a matter of opinion only, we think one would be as effective as the other.

Apples for inspection (*Mrs. Notley*).—The spots are caused by a fungus, which penetrates through the skin of the Apple and spreads in the flesh. The variety is King of Tompkins' County. This year, when the fruit is about half-grown, spray the trees with half an ounce of sulphide of potassium dissolved in a gallon of water.

KITCHEN GARDEN.

Manure for Potatoes (*F. H. C.*).—A combined artificial manure for Potatoes is bone-flour (phosphate), muriate of potash and sulphate of ammonia in about equal parts. The latter item, a nitrogenous manure, quickly dissolves, and when taken up by the Potato roots soon creates strong leafage and growth. This reacts on the other ingredients and assists the plants to utilise these all the quicker. You may, when planting, first throw out trenches or furrows 6 inches deep, strewing the manure when well mixed along the furrows, then putting in the tubers and at once covering them up. That is the preferable plan and gives less trouble. Have the manures well mixed, but kept quite dry, a day or two before using them. The middle of April is soon enough for midseason or late, strong-growing varieties. Six pounds of the manure should dress about 80 feet length of furrow.

MISCELLANEOUS.

Where to obtain Calceolaria integrifolia (*A. D. F.*).—This Calceolaria is, as suggested by you, not generally met with in nurserymen's catalogues. We believe, however, that it is kept in stock by Messrs. Robert Veitch and Sons, nurserymen, Exeter, Devon, and could, doubtless, also be obtained from Messrs. James Veitch and Sons, Chelsea, S.W.

Red spider on Roses in cold greenhouse (*R. Russell*).—This little pest, so minute that one can hardly discern it with the naked eye, is most difficult to eradicate if it once obtains a hold on Rose plants grown under glass, and especially in a cold house. They do not like moisture in any shape; therefore as a first step one must see that there is a nice genial, moist atmosphere in the greenhouse. If this condition of things prevails right from the time of pruning, there will not be much trouble with red spider. At the commencement of the season see that all the old foliage is gathered up and burnt, and also all prunings. An excellent plan to adopt following this clearing up is to vaporise the house with Campbell Sulphur Vaporiser. This leaves a "dew," as it were, of sulphur over every part of the plant, and, if repeated once a week for three weeks, should exterminate any spiders that happen to be present. It does not, however, destroy the eggs of the pest; so that when the plants are in leaf a watchful eye must be kept on them. Red spider is usually found on the under surface of the foliage, and very soon its presence is detected by a "russety" appearance of the leaves; but we want to prevent the plants getting into this condition. Therefore we recommend a free use of the syringe to the under surface of the foliage, mixing with the water some Cyllin Soft Soap. The water should be warm, or the soap will not readily mix. A good douching with Cyllin Soft Soap solution about once a week or ten days will not only keep red spider in check, but mildew also. You can obtain the soft soap from Messrs. Jeyes, the sanitary chemists. If you adopt the syringing there will be no need of the sulphur vaporising after the first application. If the plants are grown in pots, take each one separately, lay it on its side on top of a cask with one end out, so that the pot does not roll off, then syringe the under surface thoroughly and powerfully. If planted out, the difficulty of syringing the under surface of the foliage becomes very great, but usually the growths can be tied over in such a manner that enables one to direct the spray of water to the under surface. In constructing a cold greenhouse it is always advisable to provide a removable roof, so that the plants may have the benefit of natural conditions in summer, a time of year when they are very likely to suffer from red spider owing to neglect in syringing.

Bedding out Heliotropes and other plants (*S. Walker*).—You might put three of the Heliotropes in each bed, alternating with them two plants of such tall-growing subjects as Streptosolen Jamesonii, with orange flowers; Swainsona galegifolia, with lilac pink Pea blossoms; Plumbago capensis, whose light blue flowers are always admired; or Fuchsias, if you have them large enough. All these are very popular as large plants for bedding purposes. For carpeting the ground beneath taller-growing subjects the bedding Violas are very suitable. The following varieties can be recommended: Bullion, golden yellow; Countess of Wharncliffe, white; Countess of Kintore, bluish purple, shaded white; Duchess of Sutherland, mauve; J. B. Riding, deep rose; and The Bishop, rich purple.

Soot as manure (*Redruth*).—Soot from house chimneys is a very good manure, because it is relatively cheap. But soot from furnace chimneys or flues is bad, not only because the intense heat to which it has been subjected has destroyed all the nitrogen in it, but it is really injurious because charged with harmful gases. For that reason we do not advise the use of furnace-created soot such as you have at your disposal. Except by subjecting it to chemical analysis, an expensive process, it is difficult to determine the value of the sample sent, but it lacks the strong ammonia-like smell found in domestic soot, and also lacks the deep colour that form of soot shows. Your suggestion to use this soot as a top-dressing 2 inches thick is inconceivable. It would, no doubt, kill everything. Use some on a small area of ground as an experiment, but otherwise do not use it at all.

Gas-lime as a soil dressing (*H. G.*).—We should not fear any harmful consequences from the action of a gas-lime dressing on ground after, as in your case, it has been spread and exposed on the ground for several weeks. You should now have it well dug in and mixed with the soil, but leave planting Potatoes or sowing seeds of other crops until the middle of April. It is most improbable, assuming that your lime dressing did not exceed a bushel to each rod of ground, that any harm can possibly come to roots of any plants or trees from its use. The frequent winter rains must have well washed all acid out of the lime and left it now comparatively innocuous. We shall be pleased to learn from you in the summer whether you found good or harm resulting from these dressings. It is quite out of the question that your fruit trees could in any way suffer.

Erecting a pergola (*Wickwar*).—There is really nothing to choose between the different styles of cross-pieces for your pergola which you suggest, especially if the uprights are a fair height; if your uprights are not very high, however, No. 3 would be the best method to adopt. A pergola composed entirely of Roses is very effective, but one of mixed plants provides a longer display of flowers. If you adopt the latter plan, you may plant Roses on alternate pillars and the intermediate ones with Wistaria chinensis, W. multijuga, W. multijuga alba, Clematis Jackmanii, Vitis Coignetiæ and Lonicera japonica var. halleana. The poles you mention as a continuation of your pergola are a good idea, and would look very pretty covered with Roses. The best wood to use is good Oak poles. You may, however, use Larch, but in any case the bases ought to be tarred or creosoted. You can, however, build your pergola with ordinary gas-piping, the uprights being embedded in stone and held secure with short iron stays. Some people may tell you that plants will not grow on iron supports, but that is not so, for they succeed admirably, and the pergola has a lighter appearance than when built of wood.

Screen to shut out glass houses (*Wickwar*).—Either a low trellis or rustic fence, the latter formed of rough, peeled Oak branches, would make a good screen for your frame ground. Such a fence could be covered as you suggest with Clematis montana, Japanese Honeysuckle, and, we would advise, Clematis montana rubens, Jasminum nudiflorum, Escallonia langleyensis, E. macrantha, Ceanothus veitchianus, Clematis alpina, Clematis Flammula rubro-marginata and Garrya elliptica. All are not climbers, but are suitable for growing against a fence. If you decide to have a trellis, have it made of good strong wood and let it be well painted; the portions which are inserted in the ground should be previously soaked in tar or creosote to prevent decay. Oak posts are the most serviceable, but are, of course, more expensive than those of other woods. The laths may be of ordinary deal. A low hedge in the position you mention would look well, but it would have to continue the whole of the distance; half hedge and half trellis would not be effective. Of the two it is probable that the hedge would give the least trouble. Penzance Briars are suitable, but, perhaps, a more satisfactory subject would be Berberis stenophylla. As a matter of personal taste we should prefer the plant-covered trellis.

Making a shallow garden fertile (*Lismoyne*).—Until you can gradually excavate some of the

ironstone which forms the substratum beneath your 12 inches of garden soil, and thus deepen the body of soil available for plant roots, we fear any other measures will give you little satisfaction. No amount of manuring can replace to crops the lack of deep rooting presented, as in such an elevated position as yours soil must drain dry rapidly, and, no doubt, in hot weather quickly parch up. Your suggestion to sow corn on a portion of the soil, then to dig it in while still green, is very good, and should suit crops such as Cabbages, Cauliflowers, Broccolis, Borecoles, Savoys, Spinach, Turnips and Onions, of which plantings or sowings need not be made until July and August, as they are all late autumn or winter crops. If you have one-third of the area to spare, you could deepen the soil on the other two-thirds by removing all the surface soil from the spare one-third on to the other ground and then convert the stripped one-third into a sort of rock garden, for whatever is left would seem to be all ironstone. You could get sulphate of ammonia and use that as manure for your crops, giving them, when growth has begun, very light sprinklings of 2lb. per rod finely crushed, then well hoed in, once a fortnight, some three times, as that will be at once utilised by the crops, and not be washed away as is basic slag. Of course, the more wet, well-decayed animal manure you can dress on the ground and well dig in the better, as that will retain moisture for some time, but adding merely fresh dry manure simply helps to keep the soil more open and exposes it to the influence of the hot, drying sunshine. No doubt in many cases top-dressings of such manure as mulches would be more effectual. Your efforts to garden with success in such an elevated position and on such shallow soil merit all sympathy, but your difficulties will, we fear, show little abatement so long as the ironstone base remains to your shallow surface soil.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY'S ANNUAL MEETING.

THE annual general meeting of the Fellows of the society was held at Vincent Square on the afternoon of the 8th inst. The president, Sir Trevor Lawrence, K.C.V.O., was in the chair. In referring to the various items of the annual report, the chairman mentioned the shows held by the society, and said that through the generosity of Mary Countess of Ilchester, Holland Park had been secured for the summer show this year, but only on the understanding that this should be the last time, at least for the present. The Council had, therefore, decided to hold the summer show of 1911 at Olympia, but the date could not yet be fixed. He hoped that the proposed International Exhibition would be held in 1912, but nothing definite had been decided yet.

Mr. J. Gurney Fowler, who seconded the adoption of the report, referred in detail to the balance-sheet, which proved the society was in a sound condition.

Mr. Arthur Sutton said he was very satisfied with the report, as every item could be regarded as a record of good work done.

Mr. H. J. Elwes said he would like a clearer statement with regard to the position of the Lindlay Library. He agreed that there was a necessity for an up-to-date revision of Pritzel's work, but he believed there were three annotated copies, and he suggested a reprint of one of these rather than spending the large sum proposed in undertaking the work afresh. Regarding the Royal Botanic Society, he did not think the correspondence led anyone to suppose that the Council of the Royal Horticultural Society had any desire for amalgamation.

The Rev. Joseph Jacob said he thought someone might be appointed to act as "eyes and ears" when old horticultural books of value came into the market. He referred particularly to old books on floriculture, in which the library was deficient.

Sir Trevor Lawrence, in replying, said, in answer to Mr. Elwes, that the Royal Botanic Society had made no definite proposal, but the Royal Horticultural Society had every desire to consider any suggestions that might be made.

We give the following extracts from the annual report which has been presented to the Fellows:

THE ONE HUNDRED AND SIXTH YEAR.

The past year, though climatically unfavourable for horticulture, has, nevertheless, been a satisfactory one of progress in almost every branch of the society's work.

WISLEY GARDENS.

The very heavy rainfall and continual damp, coupled with lack of sunshine, has had the same effect on the society's gardens as on most other gardens in the south-east of England. The unfortunate effects have been felt especially in the trials, for which normal conditions are so particularly desirable for obtaining reliable results and records. Steady work has, however, been maintained and many improvements effected. A new fruit wall some 100 feet long has been added, enabling the students to obtain instruction in the training of fruit trees on walls. A complete and commodious potting and working shed has also been built. The public path crossing the lower meadow has been fenced in order to protect the newly planted trees and shrubs from damage.

A large and valuable gift of Orchids received from J. B. Field, Esq., together with others from the Hon. Mrs. Henry Gladstone, Colonel Rippon, Mrs. Davies Evans and our treasurer, have emphasised the necessity for a new Orchid house, which it is hoped may be built during the coming year.

The value of the research and experimental work carried on in our laboratory at Wisley can hardly be over-estimated. The school of horticulture is also making most satisfactory progress. The results of the 1909 examinations have been highly encouraging, diplomas having been gained by eight out of the nine students who left at the end of the summer.

INNES' CHARITY.

An order has been made by the Charity Commission respecting the charities of John Innes, in the parish of Merton, Surrey. The charity provides for the foundation of a horticultural institution at Merton for the promotion of horticultural instruction, experiment and research. The order institutes a council of twelve representative members, nominated partly by other kindred institutions. The Council of the Royal Horticultural Society obtained the permission of Sir Daniel Morris, K.C.M.G., V.M.H., to nominate him as their representative, and are glad to find that he has at once been appointed vice-chairman of the council of the new institution. Professor Bateson, F.R.S., V.M.H., has been elected director.

JUBILEE OF THE FRUIT AND FLORAL COMMITTEES.

The Council congratulate the fruit and floral committees on the celebration of their jubilee, an occasion which it was thought fitting to mark by a dinner given to the members at the Hotel Windsor, Victoria Street, on July 6. It is a matter of no little pleasure to note the long uninterrupted service of many of the members of both committees, and the Council, on behalf of the Fellows, again extend to them their warmest thanks for the service they render to the society and the invaluable assistance so freely and generously given through so long a series of years. The Council were glad to hear that the fruit committee had taken advantage of the occasion to present their chairman with his portrait.

THE LAWRENCE MEDAL.

It will be remembered that three years ago a subscription fund was formed to secure a portrait of our president and for the founding of a medal in his honour. The choice of an artist for executing the medal led to some delay, but eventually the work was entrusted to Mr. Bertram Mackennal, A.R.A., who has worked out an excellent design. The first medal struck was rightly given to our president, whose name it bears. The 1909 medal has been awarded to Lieutenant-Colonel G. L. Holford, C.I.E., C.V.O., in recognition of the beautiful exhibits of Orchids which he has made during the past year.

LIBRARY.

During the year an opportunity occurred of acquiring a valuable collection of rare old horticultural and botanical books which had been got together by one of the Fellows of the society—an opportunity which the Council were only too glad to embrace.

Negotiations are pending with the trustees with the object of uniting the Lindley Library more indissolubly with the society. Legal difficulties stand in the way, but there is every hope that the year 1910 will see them overcome, and the union between the Lindley Library and the society placed on a thoroughly satisfactory basis.

SPRING BULB SHOW.

The spring bulb show on March 9 proved one of the most popular events of the society's year. The attendance was so large that the Council consider it advisable, in repeating the show in 1910, to make it of two days' duration, the dates fixed being March 8 and 9.

TEMPLE AND HOLLAND HOUSE SHOWS.

The twenty-second Temple Show was a great success, though the continuous rain deprived visitors of much of its usual pleasure. The Benchers, for reasons fully recognised, were compelled to make many restrictions upon the society during the days of its occupation of the gardens, but it is understood that they were amply satisfied with the manifest desire of the society to conduct the show with as little disturbance to the quietude of the gardens as possible.

The Holland House Show, in spite of unfavourable weather, has not been surpassed by any previously held by the society.

The Council extend their hearty thanks to the treasurer and Benchers of the Inner Temple; and to Mary Countess of Ilchester for granting the society privileges which, we are glad to say, have again been extended for the year 1910.

AFFILIATED SOCIETIES' CHALLENGE CUP.

This cup, competed for by exhibits of Apples and Pears from our affiliated societies, and collected from among their members, created very great interest and was won by the Royal Jersey Society, thirteen separate collections having been staged.

The cup can be won by the same society only once in four years, but the winning society in any year is not precluded from competing for any other prizes that may be offered in this competition. The date fixed for 1910 is October 13 and 14.

AUTUMN FRUIT AND VEGETABLE SHOWS, 1910.

As already announced, the Great Autumn Fruit Show will be resumed in 1910, the date fixed being October 13 and 14. It had been intended to hold a show of vegetables at the same or immediately following date, but circumstances have decided the Council to defer the Vegetable Show until Tuesday, October 25. The schedule of prizes for both shows will be issued shortly.

INTERNATIONAL EXHIBITION.

From time to time, in recent years, International horticultural exhibitions have been held at various centres on the Continent, as at Paris, Berlin, Ghent, Turin, &c. The last occasion on which Great Britain took the part of host in these International courtesies was in 1866, and the Council of the Royal Horticultural Society feel that it is time that our country made an effort to return some part of the hospitality which foreign countries have so often extended to us during the forty years which have elapsed since such a gathering was held in London. It has further been suggested that in connection with it a fourth conference should be held on Genetics, *i.e.*, on the origin, breeding and heredity of plants.

HONORARY LIFE FELLOWS.

Sir William T. Thiselton-Dyer, K.C.M.G., F.R.S., and Sir Daniel Morris, K.C.M.G., V.M.H., have been appointed Honorary Life Fellows of the society under By-law XVI.

ROYAL BOTANIC SOCIETY.

During the year communications have passed between the Royal Horticultural Society and the Royal Botanic Society, which have, however, produced no definite result.

SHOWS IN 1909.

During the year thirty-one exhibitions, covering thirty-seven days, have been held by the society.

VICTORIA MEDAL OF HONOUR.

The Council has offered vacant medals to Messrs. W. Botting Hemsley, F.R.S., J. H. Goodacre and A. Mackellar, who have accepted the distinction.

RETIRING MEMBERS OF THE COUNCIL.

Lord Balfour of Burleigh, K.T., Sir Albert Rollit, LL.D., Litt.D., D.C.L., and Mr. James Hudson, V.M.H., retire from office. Each has allowed himself to be renominated.

ANNUAL PROGRESS.

The following table will show the society's progress in regard to numerical strength during the past year:

LOSS BY DEATH IN 1909.

		£	s.	d.
Life Fellows .. .. .. 18 ..		—	—	—
4 Guineas .. .. .. 1 ..		4	4	0
2 ,, ... 49 ..		102	18	0
1 ,, ... 70 ..		73	10	0
138	£	180	12	0

LOSS BY RESIGNATION, &c.

		£	s.	d.
4 Guineas .. .. .. 3 ..		12	12	0
2 ,, ... 168 ..		352	16	0
1 ,, ... 401 ..		421	1	0
Associates .. .. .. 23 ..		12	1	6
Affiliated societies .. .. 22 ..		23	2	0
617	£	821	12	6
Total loss 755	£	1,002	4	6

FELLOWS ELECTED IN 1909.

		£	s.	d.
Hon. Fellows .. .. .. 3 ..		—	—	—
4 Guineas .. .. .. 8 ..		33	12	0
2 ,, ... 610 ..		1,281	0	0
1 ,, ... 584 ..		613	4	0
Associates .. .. .. 26 ..		13	13	0
Affiliated societies .. .. 31 ..		32	11	0
Commutations .. .. 16 } =£404 5s. }				
1,278	£	1,974	0	0
Deduct loss		1,002	4	6
Net increase of income ..	£	971	15	6

New Fellows, &c.	1,278
Deaths and Resignations	755
Numerical increase	523
Total on December 31, 1908 ..	10,507
Total on December 18, 1909 ..	11,030

REDHILL AND REIGATE GARDENERS' ASSOCIATION.

ON Tuesday evening, February 1, the members of the Redhill, Reigate and District Gardeners' Mutual Improvement Association held their usual fortnightly meeting in the Penrhyn Hall. In the absence of Mr. W. P. Bound (who was lecturing at Guildford), Mr. G. Duncan of Merstham presided over the meeting. The attendance numbered about fifty. The minutes were duly read, and the chairman then introduced Mr. Guile of Shortgrove, Essex, who had come to lecture on "Carnations." Mr. Guile said he would start right away with his paper, and at once proceeded to explain that Carnations were quite easy to grow provided that the right methods were adopted. He explained the culture of the plants in every possible manner, from the seed to the flowering stage and raising plants from layers; he described the best soil to use, when to stop the plants, how to stake them, how to fertilise them, how to spray them, what chemicals to use (if any), what manure was most suitable, what style of house to use and, lastly, the best varieties. The lecturer brought with him some fine specimens of Carnations as examples of his cultural skill, among which were Enchantress, White Enchantress, Pink Enchantress, Beacon, White Perfection, Winsor and Carola, named by the Queen of Saxony after herself shortly before her death. At the conclusion of his paper Mr. Guile was assailed with questions. Those taking part in the discussion were Messrs. Cutter, Duncan, Herbert, Jackson, Blackwood, Rose and others. A vote of thanks was accorded the lecturer. Mr. Guile suitably responded and the meeting terminated about nine o'clock.

THE GARDEN.

No. 1997.—Vol. LXXIV. FEBRUARY 26, 1910

CONTENTS.

A Feast of Colour .. 97
Notes of the Week
Forthcoming events 98
Forestry at the Royal Agricultural Show 98
British Gardeners' Association 98
The Jubilee Flower Show at Haarlem .. 98
Correspondence
Cratægus Pyracantha Lelandii 98
A single plant of Sweet Pea 99
The late Professor Hillhouse 99
Gardening of the Week
For the South and South Midlands .. 99
For the North and North Midlands .. 99
Trees and Shrubs
The Japanese Maples 100
The old Oak in Kyre Park, Worcester .. 100
Rules for pruning flowering shrubs .. 100
Rose Garden
Killarney as a forcing Rose 100
Pruning Roses for exhibition 100
Flower Garden
Snowflakes (Leucojum) 101
Daffodil notes 101
Sweet Pea chat .. 102
Some good hardy annuals 102
Flower Garden
Calceolaria violacea 102
Greenhouse
Saintpaulia ionantha 103
Poinsettias after flowering 103
Begonia Gloire de Lorraine 103
Coloured Plate
Three new Sweet Peas 103
Gardening for Beginners
Garden work week by week 104
Increasing the Coleuses 104
Bedding-out Calceolarias 105
Peaches in an unheated Peach-house, &c. .. 105
Transplanting seedling Begonias .. 105
Roses for new beds .. 105
The Town Garden .. 106
Chrysanthemums
Early-flowering Chrysanthemums .. 106
The best twelve Sweet Peas 107
Answers to Correspondents
Flower garden 107
Greenhouse 107
Fruit garden 108
Miscellaneous 108
Societies 108

ILLUSTRATIONS.

The old Oak in Kyre Park, Worcester 100
A cluster of the Summer Snowflake 101
Begonia Gloire de Lorraine in a Sheffield garden .. 102
Three new Sweet Peas .. .. Coloured plate
A beautiful warm greenhouse plant 103
Increasing the Coleuses 104, 105

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

A FEAST OF COLOUR.

Chinese Primulas and Persian Cyclamens.

A WILD wind is blowing across the garden, the Snowdrops are shivering and the Crocuses afraid almost to show their golden flowers in the fitful gleams of sunshine that score the brown earth with light. Spring is certainly approaching, but recent weather trials have not filled the gardener with enthusiasm—everything is cold, bare, desolate. This concerns the outdoor garden, which, in the fulness of time, will be covered with flowers and the good things of the earth; but in the flower world there is a continuous stream of blossom. We were reminded of this recently when visiting Messrs. Sutton and Son's nursery at Reading. Outside preparations were going forward for the summer, when the now comfortless acres will be covered with flowers and vegetables to test their qualities and provide for a rich seed harvest. There is, however, another phase of horticulture exemplified in the highest degree at Reading—the cultivation of the Chinese Primula and Persian Cyclamen. One steps into a garden of winter flowers, and in the splendid range of houses set in the seed trial grounds facing the railway there is a feast of colour that gives as much pleasure now as the acres of hardy annuals in their season of flowering. We are not thinking so much of the patient and skilful work pursued during the lifetime of many a hybridist, but of the beautiful results of their labours. This range of plant houses shows at the present moment a "feast of colour," and those who love flowers should bestow an increased affection upon two of the brightest and most easily grown plants of the winter and early spring—the Chinese Primula and the Persian Cyclamen. Perhaps the earth may be mantled with snow, and then the contrast, the intense pleasure, to revel in this world of flowers, delight in the colouring, and enjoy the fresh, sweet smell that brings thoughts of the breath of spring. On many occasions it has been our privilege to visit the Reading nurseries in February to study in particular the flowers which we have now under consideration; but never have the many varieties, representing the two families in the highest perfection, presented a more glorious cloud of colour.

Of the Chinese Primulas there are several types. One may place greater faith in the single than in the exquisite doubles—that is a matter of personal preference. As some guide to a selection among the single forms that win our admiration are the following: The Duchess has become a standard favourite. Messrs. Sutton describe it as "one of the most distinct and beautiful Primulas yet raised," and these words are none too descriptive of a flower that represents a wonderful break away from the types already in existence. Glancing along the banks of flowers, The Duchess is at once recognised by flowers of snowy whiteness, relieved by a zone of a rose purple shade, further intensified by the yellow eye. The plant, so strong and free in all ways, looks one straight in the face; there is nothing bashful about this beautiful "Duchess." A delightful group was composed of what are known as the "Duchess" hybrids, which are the outcome of numerous crosses made by Messrs. Sutton, the result being a charming series of colours varying from blush to deep crimson, without losing the distinctive central zone.

Nothing pleased the writer more than Coral Pink. The colour is as alluring as anything in the Primula world, a plant of sturdy growth, bowered over with flowers of exquisite tint, coral pink, a soft shade that should gain great popularity. There are few colours purer or more distinct in the flower world. This is a sport from Crimson King, a Chinese Primula of an intense crimson shade, bringing recollections of Carnation-time, when several kinds have the same warm colouring. The blue shades are a revelation. They may be described as violet blue or purple blue, but blue they are, without any unpleasant ultramarine element. The writer well remembers the first beginnings of this now beautiful race, the colours crude and indefinite; but hybridisation and selection have given to the world flowers that appeal to one for their beauty and freshness. The new dark blue The Czar is aptly mentioned as "a colour previously unknown to Primula sinensis," and not only is the growth strong, but flowers are produced in rich abundance, the colour an intense depth of violet. Then the eye is arrested by the rose, clear white, soft pink and the delightful Fern-leaved type, so-called from the resemblance of the foliage to the fronds of the Fern, and in this group we have the blue-coloured variety, Rosy Queen, Purity and others, but the blue gave us the greatest pleasure; the many plants presented a misty sea of blue. In another house are the Giant Primulas—Pink, Royal White, Salmon Pink or Terra-Cotta, a welcome addition to the many forms already in existence, Crimson, and the mixed, in which there are many varieties of great charm. One may feel assured of this—nothing is permitted to exist that does not possess some worthy attribute. To wander through this little forest of Primulas and Cyclamens, too, is a lesson in the art of hybridisation, and the drastic elimination of anything that does not approach the standard of excellence Messrs. Sutton have established.

We have been considering only the single Primulas, but there is another group, the double forms, which have a peculiar fascination. Messrs. Sutton have a double variety of The Duchess with all the fine qualities, if one may so express it, of the type, colouring and strength of growth. Pink Beauty, the double blue and the double scarlet are conspicuous among many. One house is filled with the "Star Primulas," which possess the same range of colouring as what one may describe as the dwarfer forms. But "Star" flowers these are, graceful, free, and creating a perfect sea of colour—White Star, light and dark blue, Ruby, Carmine, Pearl and a delightful mixture called the "Mixed Star"—colours as pure and welcome as anything one can possess at this season of the year. Nor must we forget Primula obconica, which this firm has improved so much that in the newer acquisitions the parent is completely overshadowed—again clear pink, crimson and the softest mauve.

THE PERSIAN CYCLAMEN.

This is another beautiful flower to bring joy to the indoor garden. Fragrance faintly scents the house, a scent of Lily of the Valley. It comes from the Persian Cyclamen, here represented in many varieties—white, rose, crimson, the fringed, Vulcan, as deep in colour as a Richmond Rose, and salmon. The "Giant Salmon Pink" is a flower all who cherish a soft shade should possess, and seen when the light shines through the petals, nothing among Cyclamens composes a sweeter flower-picture. The "Rich Salmon Pink" is more intense, and both are welcome.

These notes are cursory, but their object is to show the wonderful wealth of colour that the Primulas and Cyclamens can give at this season of the year, bringing to the conservatory or greenhouse a "feast of colour" in the early days of the year.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

March 1.—Scottish Horticultural Society's Meeting.

March 3.—Linnean Society's Meeting.

Important forestry appointment. An important forestry appointment has just been given to Mr. Gilbert Brown, who is at present forester to Lord Lovat on his estate of Beaufort. This is that of forester on the Strathspey estate of the Dowager Countess of Seafield, a post which is considered the leading one of its kind in Scotland. The Strathspey forests are of vast extent, and as they have been well cared for, the appointment is one upon which Mr. Brown is to be congratulated. It may be added that the woodlands in possession of the Countess of Seafield extend to close upon 60,000 acres.

Forestry at the Royal Agricultural Show.—Mr. Charles Coltman Rogers of Stanage Park, Brampton Bryan, presided at a meeting of the forestry committee of the Royal Agricultural Society held recently, when the arrangements for the Forestry Exhibition at Liverpool were considered. Mr. E. Lovell Clare of 11, Dale Street, Liverpool, and Mr. T. A. Earle of Hartford, Cheshire, attended the meeting, as representing the local forestry committee, and submitted proposals for a plantations competition, on somewhat similar lines to that held in connection with the Gloucester Show of last year. It was decided that, if sufficient financial support were forthcoming, a competition, confined to the districts of Lancashire, Cheshire and North Wales, should be carried out for plantations under varying conditions, namely, (1) growing on a rich or on a poor quality soil, (2) mixed or unmixed, (3) conifers or hardwoods, (4) from five to thirty years from date of planting. The Forestry Exhibition, to be held in the Liverpool Showyard, will be on the same general lines as that at Gloucester last June.

British Gardeners' Association. The following "open letter" is being circulated to candidates for the London County Council by the executive council of the British Gardeners' Association: "Dear Sir,—I am directed by the executive council of the British Gardeners' Association to ask if, in the event of your election to the London County Council, you will be good enough to use your influence to secure the following recommendations of the British Gardeners' Association, viz.: (*a*) To secure a minimum wage of 30s. per week for those gardeners employed by the London County Council who can produce the credentials of the British Gardeners' Association as to being duly qualified gardeners; (*b*) to secure an alteration of the system which allows the appointment of a military officer to the post of Chief Officer of the Parks Department, an appointment which, in the opinion of the executive council of the British Gardeners' Association, should be held by a properly qualified gardener possessing the requisite technical knowledge and powers of organisation and control.—JOHN WEATHERS, *General Secretary.*"

The Jubilee Flower Show at Haarlem.—This show, organised by the General Bulb Growers' Society of Haarlem, will be opened by H.R.H. Prince Henry of the Netherlands on March 23. The Dutch Minister of Agriculture will be the chief speaker. The exhibition halls, although very spacious indeed, will be too small to contain the many exhibits for which space has already been applied. Another building has been constructed for plants and flowers; but as the grounds have already been planted with bulbs in autumn and are also rather crowded, it will be quite impossible to erect more buildings. The bulb fields of Holland have always been an attraction to tourists, and a visit to Haarlem and its environs this spring will be of special interest. The bulb fields are only at their best for a few days; but the Haarlem Flower Show is arranged so as to remain in full beauty from the opening to the end. The temporary shows in buildings, to which we have referred already, will be held from March 23 to 31, April 4 to 12 and May 20 to 22. The International jury will meet in March and April, under the presidency of Mr. de Marez Oyens, ex-Minister of Commerce, Industry, &c., and now President of the Netherlands Federation of Horticultural Societies. The Jubilee Flower Show of Haarlem promises to become one of the chief features of the horticultural year.

Royal Scottish Arboricultural Society.—The annual meeting of this society was held in the Goold Hall, Edinburgh, on February 11. The chair was occupied by the retiring president, Sir Kenneth Mackenzie of Gairloch. The annual report of the council, which was read by Mr. Galloway, the secretary, was of a satisfactory character. The membership now stands at 1,352, thirty-nine more than in the previous year. Reference was made in the report to the Development Act, its probable influence on Scottish forestry, and the suggestion made of a grant being asked by the society. In the discussion of the report, the question of consulting foresters was referred to, and a suggestion that the subject should be remitted to the council for reconsideration was finally agreed to after being spoken on by Mr. W. S. Haldane and Mr. Munro-Ferguson, M.P. The report was adopted with this addition. The report of the treasurer, Mr. John Methven, was satisfactory, the balance of income carried to this year amounting to £213. In retiring from office, Sir Kenneth Mackenzie paid a tribute to the services of Mr. Galloway, their secretary, and remarked with gratification to the fact that the society's membership had increased by 193 since he was appointed president three years ago. He then nominated as his successor Sir John Stirling Maxwell, who took the chair and gave an admirable presidental address, dealing in a practical manner with various subjects of especial interest to Scottish arboriculturists at the present time. Sir John was heartily thanked.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The best twelve Sweet Peas.—For interesting correspondence on this subject see page 107.

A note from Dublin.—A correspondent dating from Shrewsbury Road, Dublin, on February 8, writes that "The little rock garden in my suburban patch grows and flourishes. I have had Saxifraga burseriana grandiflora in flower the past fortnight in a pan, *very fine*, but it is over now; and I have at present S. Boydii alba and S. burseriana major in flower, and all the following are just about to open their buds, *i.e.*, Saxifragas marginata, juniperifolia, retusa, oppositifolia major, Ferdinand Coburgei, apiculata, sancta and scardica (true); also Primula megaseæfolia has been, and still is, a treasure in deep shade below the dining-room window, having flowered all the winter. As soon as one flower dies, another comes out quite regardless of frost and snow, of which we have had far more than usual. The plant I am most proud of is from a cutting given me as Antirrhinum sempervirens, but which the authorities at Glasnevin say is certainly glutinosum. It is on the top of the rockery and forms a cone nearly 4 feet in diameter and about 2 feet high, and is generally *covered* with flowers all the summer. I am particularly proud of it because the great gardeners at the other side of Dublin cannot grow it; they are on limestone, which may account for it."

The Peruvian Nasturtium.—I can fully endorse all that your able contributor, Mr. S. Arnott, says on page 55 (January 29) respecting the above-named plant. There may be two forms, one freer flowering than the other; but in one instance I know that the plants flowered profusely year after year near some cottage walls, but were almost flowerless in a large garden a mile distant. The gardens referred to were situated in the south of Hampshire, and the borders had a south aspect in each case except one, and that faced the south-west. The soil was very sandy and rather poor, but the plants grew to a height of about 3 feet each year, the shoots being trained to strings fastened to the wall beneath the windows of the dwelling-houses. In the case of those plants in the south-west position, I may say that the roots permeated the hard gravel path and had very little soil of any kind to grow in. These plants were always heavily laden with flowers, richer in colour than any on the other plants. There was iron in the soil. The tubers were planted deeply and, as the soil was of such a light, sandy nature and the positions well protected, they were left in the ground all the winter. It is better, however, to lift them where the soil is of a heavier and more retentive nature.—B.

Cratægus Pyracantha Lelandii. I fully endorse all your correspondent "A. D." has written respecting this glorious autumn and winter shrub in THE GARDEN, December 11, page 611. Generally we have been used to seeing the above and the old Pyracantha planted against a wall; but really Pyracantha Lelandii makes a charming object in any ordinary shrubbery or isolated on a lawn. About ten years ago I planted eleven of these shrubs

towards the front of a shrubbery facing due south, and for the last four or five years they have arrested the attention of thousands of people from all parts. Last year they were exceptionally fine; they are about 7 feet in diameter and 7 feet high, and produce a splendid effect when the sun is rising and setting.—J. MELVILLE (Superintendent), *Finsbury Park, N.*

A single plant of Sweet Pea.—I was much interested in Mr. T. Stevenson's photograph of a single plant of Kathleen Macgowan. In 1907 I procured some seed of Rosie Sydenham. Five or six plants (started in a cold greenhouse) were planted out in a clump in April, but only one lived. It did not seem worth while to take much trouble with a single plant, but it became so vigorous that by the end of the summer it was covering the sticks that had been placed for the whole clump. Early in September I cut forty stems from it to take to a show, where I put up thirty of them. Nearly all had four large blooms, which made the vase look so full and handsome that it was lifted down and the stems counted to see that there were not more than the specified thirty. I won the first prize, and this vase helped materially. I tried to get a photograph of the plant the following week, but it did not come out well. Two plants of a pink variety made another clump of such beauty that Mr. Eckford printed a photograph of it in his catalogue for 1908.—(MRS.) G. LEIGH SPENCER.

The late Professor Hillhouse.—It is with sincere regret that I learn of the death of William Hillhouse, M.A., M.Sc., F.L.S. (late Professor of Botany at Birmingham University), at Malvern Link on January 27, at the comparatively early age of fifty-five years. Those who knew and saw the Professor of late years have been aware of his delicate state of health, and were not astonished at his resignation of his post some few months ago. His death will not surprise them altogether, although it was hoped that with care his life might be prolonged. He was born at Bedford, where, in course of time, he became a schoolmaster. He founded the Bedfordshire Natural History Society and greatly helped in the publication of the "Flora of Bedfordshire." From Bedford he passed to Cambridge, where he became a lecturer in botany and assistant-curator of the University Herbarium. He had a number of private pupils, many of whom attained to good places in the Science Tripos. In 1882 he was given the charge of the botanical department at Mason's College, Birmingham. This institution was transferred to and became part of the university, where Mr. Hillhouse was eventually appointed Professor of Botany. From 1883 up to the end of last year Professor Hillhouse was an active supporter of the Botanical and Horticultural Society—as a committeeman, hon. secretary and chairman of the general committee his services will long be remembered. During this period of his activity the alpine garden was formed, the Water Lily house rebuilt and the exhibition hall enlarged. The Professor will go down to posterity as the man who instituted the first Daffodil show. This took place at Edgbaston, and these yearly shows there were the forerunners of the famous Midland Society. When this society was formed he naturally occupied the important post of chairman of committee. His services in this capacity were invaluable, and his wisdom, firmness and courtesy had no little to do with the success and harmonious working of the society. He was greatly interested in afforestation, and occupied the chairmanship of the Midland Afforestation Society. In social matters, too, he did a good work. His presidential addresses to the Birmingham Gardeners' Mutual Improvement Society were eagerly looked forward to, and it was always a great disappointment when latterly ill-health prevented him from attending. As an old Cambridge pupil and a friend of later years may I say that there will be many who will feel his loss.—JOSEPH JACOB.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

OUTDOOR FRUITS.

PEACHES AND NECTARINES.—The pruning and nailing of these can now be commenced. If the disbudding operations were properly carried out last season, there will not be much pruning required now; some of the old wood cut out to make room for the new will suffice. By all means avoid overcrowding the wood when nailing in. There is no gain attached to the practice, and it often leads to the ruin of the shoots on which the next season's crop will be borne. Where young trees have made very rank growth, root-pruning is necessary to check it, and it is not too late to do this now if done carefully by an experienced hand. The trees should have a good washing with insecticide when the tying and nailing are finished; petroleum emulsion is excellent for the purpose. Locally Peaches and Nectarines suffer badly from blister, and Bunyard's Medela is strongly recommended as a preventive.

FRUITS UNDER GLASS.

Late Vines.—All houses containing Vines that are intended to supply the late crop should now be closed. No fire-heat will be required for a start, the sun's warmth being quite sufficient till the buds break. Syringe the rods on bright days and damp the floors and borders. Ventilate carefully to prevent excessive heat, but avoid any draught. Should there be any difficulty in getting the rods to break regularly, they may be bent round. By doing this the sap is induced to flow more evenly, and as soon as the buds have burst the rods may be tied up in their proper positions.

Cherries.—These are very adverse to hard forcing, therefore care must be taken not to allow any sudden rise in the temperature from fire-heat; in fact, very little fire-heat is required, just enough to keep the night temperature at 50° to 55°.

Strawberries.—Fruits that have been thinned will require a little stimulant to assist in the swelling. Liquid cow-manure is very useful, and a top-dressing of a good fertiliser now and again is beneficial. They should be as near the glass as possible, in a temperature of from 65° to 70°. Keep them well syringed, twice daily on bright days, to prevent any attack of red spider.

PLANTS UNDER GLASS.

Chrysanthemums intended to produce exhibition blooms ought now to be potted into 3-inch pots. Keep close for a few days after potting, then allow a little air. The idea must be to keep the plants growing freely, yet strong and sturdy. The decorative section will need attention as soon as rooted. Do not allow them to get root-bound in the cutting-pots. Cuttings of the late varieties and singles may still be put in.

Perpetual-flowering Carnations.—Pot up any cuttings of these as soon as rooted. When rooted in sand it will be found that not one root need be broken in taking them from the cutting-pots. Autumn-rooted plants are just breaking into nice growth. It is a great mistake to try to keep them growing fast in heat through the winter. This makes weak plants, and they never seem to regain their natural vigour after being forced into growth.

FLOWER GARDEN.

Early-flowering Chrysanthemums.—Cuttings of these that are rooted in boxes should be planted out in frames, where they will make strong plants ready for putting into their permanent quarters at the end of March or beginning of April.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

INDOOR GARDEN.

CANNAS.—Seeds of these are often very backward in germinating. If soaked in tepid water and the vessel set in a warm house for twelve hours previous to sowing the seeds, there should be little difficulty in getting them to germinate. Another method is to file through part of the skin, taking great care not to injure the germ. In any case, after the seeds are sown the soil must be kept quite moist, or failure is certain. While these plants are very valuable for bedding, I think that the greatest pleasure is derived from a fine batch grown in a cool greenhouse. Very rich, rather heavy soil is best suited to grow fine Cannas. If grown for greenhouse decoration, pot on before the roots get too much matted and until the pot most suitable for flowering them in is reached. The dwarfer kinds may have 7-inch or 8-inch pots, while 8-inch or 9-inch size will do for the tall varieties.

Repotting.—A great deal of repotting is required at this season, and the sooner it is put in hand now the better. Many stove plants will be much better if not disturbed at the roots. A top-dressing of good, fresh, rich soil is often preferable; this applies, of course, to plants in fairly large pots. Any of the smaller plants that are pot-bound must get a shift.

Greenhouse Plants.—These, too, must get attention at the earliest possible opportunity, and before the great press of preparing bedding stuff comes on. Many of them will, like the stove plants, succeed equally well if merely top-dressed. In every case make sure that the drainage is in perfect order, and that no worms lurk in the balls of earth. In adding the fresh soil a dusting of some good fertiliser, like Thomson's Plant Manure, is very beneficial. Allow a heaped teaspoonful to a plant in a 6-inch pot. I have found only one plant that dislikes this method of feeding, and that is Azalea mollis; all the other ordinary greenhouse occupants simply revel in it.

FRUITS UNDER GLASS.

Vines.—Disbudding, tying and pinching require constant attention. Where there is abundance of space between the rods, pinch two leaves above the bunch; but if there is any fear of crowding, one leaf above the bunch must suffice. Pinch sub-laterals above the first leaf. See to it that the inside borders are never allowed to become dry, or a heavy crop of red spider will result. Too much water is, of course, also very harmful. Apply water in a tepid state.

Peaches.—Disbudding must be carried out as the necessity arises. Never leave this work in arrears. If a good set has been got in the earliest houses, a partial thinning of the fruits should now be undertaken. Do not be very severe, as some may drop later and cause a thin crop. Keep the syringe going regularly to maintain the trees in a clean and healthy condition.

Melons.—Sow seeds of these according to requirements. Two seeds in a 3-inch pot is a good plan for Melons. When well up pull out the weaker. Only half fill the pots with soil when sowing the seeds, afterwards earthing up the plants with some fine rich compost that is of the same temperature as the Melon-house. Cucumbers may be sown, several in a pot, and potted on singly when ready. Early batches must receive every attention in the way of tying, watering, &c.

OUTDOOR FRUIT GARDEN.

Pruning is in rather a backward state with many owing to the long and severe winter, and so no time should now be lost in getting all arrears wiped out.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

TREES AND SHRUBS.

THE JAPANESE MAPLES.

THE dwarf Maples known collectively as "Japanese" are a group of beautiful, slow-growing shrubs that should find a place in every garden. The tints in spring, and again in autumn when the leaves are ripening, have much beauty. As they are conspicuously slow in growth, these Maples are exellent for planting in borders or even for filling large lawn beds. They like a deep soil, but should not be heavily manured, otherwise the rich colours will not be obtained in the foliage. In addition to this brilliant colouring the leaves are finely divided, so that the shrubs may be regarded as ornamental the whole summer through. When grown in pots they may be allowed to unfold their delicate foliage in the conservatory, where the beautiful tints will be brought out to perfection. A few of more than usual merit, and which may be relied upon to give general satisfaction, are Acer septemlobum elegans, A. variegatum atropurpureum, A. dissectum roseo-marginatum, A. palmatum palmatifidum, A. p. decompositum and A. p. ampelopsifolium. These names are ponderous, but must be mentioned when ordering these shrubs if the best are desired. Planting may be carried out at the present time. H.

THE OLD OAK IN KYRE PARK, WORCESTER.

THE illustration is of an old Oak tree in Kyre Park, Worcester, and is from a photograph kindly sent us by Mrs. Mack, Lansallos Rectory, Polperro, Cornwall. Mrs. Mack writes: "I am sending you a small photograph of an ancient Oak tree in Kyre Park, Worcester, and called 'The Hangman's Oak.' It is supposed to be about 900 years old."

RULES FOR PRUNING FLOWERING SHRUBS.

I SHOULD be very grateful if you could give me some general rules for the pruning of flowering shrubs. Is it a rule (*a*) that all shrubs flowering on old or previous year's wood should be thinned or cut back directly after flowering? (*b*) That those flowering on new wood should be pruned some time before flowering; if so, how long before? Does rule (*a*) apply to shrubs flowering in autumn as well as to those flowering in spring and summer? I should be glad to know the right time to prune the following shrubs: Deutzia, Spiræa, Weigela, Kerria, Halesia, Leycesteria, Clethra, Hibiscus, Exochorda, Amorpha and Euonymus europæus (Spindle Tree).

CHESHAM.

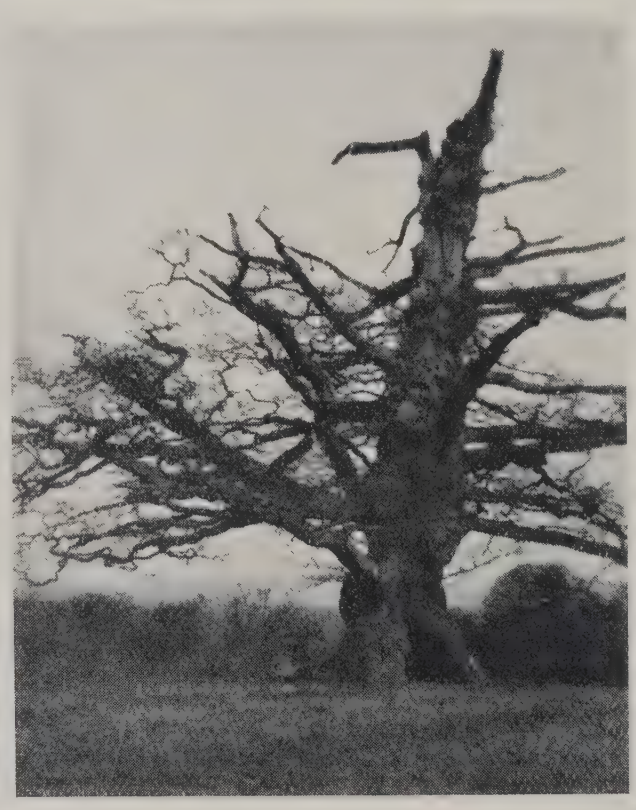
[It is by no means necessary that all shrubs flowering on the old or previous year's wood should be thinned or cut back immediately after flowering, for, as a matter of fact, many of them need little or no pruning. At the same time, many members of this group are considerably benefited by being treated as suggested. Those flowering on the new wood, *i.e.*, wood formed the same year as the flowers appear, may be cut back some time before flowering. As a rule, early spring is the best time for this. Shrubs that flower in autumn should be pruned in early spring before the buds start into growth. Of those concerning which you particularly enquire, the

Deutzias should be pruned immediately after the flowering season is past. Any old and exhausted wood may be freely thinned out, the object being to encourage strong, clean shoots that will flower well the next year.

Spiræas may be divided into two classes (1) those that flower in the spring and early summer, and (2) the late summer and autumn blooming kinds. The first-named should have any necessary pruning done directly the flowers are past. The principal consideration is, as in the case of the Deutzias, the cutting out of any old and exhausted wood, though, if necessary, the longer branches can be shortened back. The late-flowering Spiræas, such as S. japonica or S. callosa and its varieties, including the richly coloured Anthony Waterer, S. salicifolia, S. Douglasii, S. Aitchisonii and S. lindleyana, must be pruned early in the spring before they start into growth. In their case, with the exception of the two last-named, the pruning, which is best done in early spring, may be severe, all the weak and overcrowded shoots being cut out and the remaining branches shortened to within 1 foot to 2 feet of the ground. The effect of this is the production of strong shoots, which flower well. Spiræa Aitchisonii and S. lindleyana, being larger-growing shrubs, must not be treated in such a drastic way, though in their case a spurring back of the weak wood and a partial shortening of the long shoots will be beneficial.

Weigelas may be treated as recommended above for the spring-flowering Spiræas.

Kerria needs little pruning, though any old wood may be thinned out immediately after



THE OLD OAK IN KYRE PARK, WORCESTER.

flowering in order to encourage the formation of young shoots.

Halesia.—Very little, if any, pruning is needed. If one or two shoots have a tendency to grow away and thus spoil the shape of the specimen, they may be shortened back.

Leycesteria formosa should be cut back hard about the middle of March.

Clethras need practically no pruning unless the plant gets choked up with weak shoots, in which case they must be thinned out.

Hibiscus Syriacus (Syrian Mallow) may be allowed to go unpruned. If, however, it is necessary to thin out crowded shoots, this should be done early in the year, but the Hibiscus seldom requires this.

Exochorda grandiflora (Pearl Bush) does not need pruning unless it is desired to keep the specimen within bounds, when it may be cut back immediately after flowering.

Amorpha fruticosa may be thinned out if necessary in the spring. If cut back at that time the foliage is more ample, but it does not flower so freely. Amorpha canescens may be cut back hard in the spring.

Euonymus europæus (Spindle Tree) can be cut back in winter or early spring if too large, otherwise it needs no pruning.—ED.]

THE ROSE GARDEN.

KILLARNEY AS A FORCING ROSE.

I CANNOT but think that our commercial Rose-growers who supply the cut-flower trade with forced blooms make a mistake in not taking up this grand variety. Our American friends are loud in its praise, and I hear it has been the most sought-after variety this season, not even excepting American Beauty. No other variety will break and flower so readily under the American system of culture, which is mainly on benches; but I should say it would do equally as well on solid beds, especially if these beds were furnished with a row of hot-water pipes beneath them to warm the soil. The exquisite shape of the blooms of Killarney leaves nothing to be desired, and it is just about full enough to allow its lovely petals to be well displayed. The white sport from Killarney will unquestionably be a popular Rose, as, grand though it is, Frau Karl Druschki is rather too large for some purposes, and Niphetos lacks the stiffness of stem that is required in a vase Rose.

PRUNING ROSES FOR EXHIBITION.

As there are a large number of readers of THE GARDEN who are keenly interested in exhibiting Roses, the question as to early pruning or otherwise may be very opportunely discussed just now. The successful exhibitor who has many times carried off the amateurs' trophy will certainly be regarded as a great authority upon the subject of pruning; therefore I offer no apologies for quoting what Mr. E. B. Lindsell has to say upon this matter. Writing in the National Rose Society's Annual for 1908, Mr. Lindsell reviews that excellent work upon Roses, written by another amateur expert, the Rev. J. H. Pemberton, entitled "Roses: Their History, Development and Cultivation," and in the course of his remarks, after referring to the points of agreement between himself and Mr. Pemberton, he says: "As to pruning there is a marked difference in methods, the pruning here being much harder than as practised by Mr. Pemberton—indeed, except in the case of a few sorts, of which Charles Lefebvre is an example, all old wood is practically cut away down to one or two eyes, with the object of forcing dormant buds at the junction of the plant with the stock to break out and give flowers early in July. It is these flowers which have chiefly helped the writer, and with longer pruning and more consequent growth from the old wood, the buds which produce them might either remain dormant or break at too late a date to give assistance until towards the end of the season.

"This severe pruning seems to keep the plants in health, and such varieties as Horace Vernet, Xavier Olibo, Dr. Sewell, Gustave Piganeau, Mrs. W. J. Grant and others budded on seedling Briars and not transplanted have grown well for years and given blooms which have at times been considered up to medal standard.

"The date of pruning is another point of difference; Mr. Pemberton prefers the third week in March, but with us a commencement is made with the Hybrid Perpetuals towards the end of February, and if weather permits, the pruning is completed by the second week in March.

"This early pruning has a double object: first, to prevent bleeding, which has at times much weakened the plants; and, second, to give full time for the development of the dormant buds previously referred to. Moreover, if the pruning is delayed it becomes more difficult to select the best weather for the work."

Personally, I am in full agreement with Mr. Lindsell. I have proved, with such a difficult Rose as Her Majesty, that by early pruning this variety and cutting it back severely, more superior blooms have been obtained and at a date more nearly coinciding with Rose shows.

The point should not be overlooked where Mr. Lindsell says that the Roses are "budded on seedling Briars and not transplanted." This makes a very considerable difference, for the plants are so well established that they can stand this severe cutting back with impunity. Those exhibitors who bud their own Roses know well what superb blooms are obtained from the "maiden" plants, and these are produced from one eye or bud; therefore, there is no reason why our established plants should not be treated as maiden plants by inducing them to produce their growth from one, or at most two eyes. Perhaps some amateurs who hold different views would favour readers of THE GARDEN with replies at once, seeing that the matter is a seasonable one. P.

THE FLOWER GARDEN.

SNOWFLAKES (LEUCOJUM).

THE Snowflakes form a small but beautiful family of bulbous plants, mostly dwarf, and closely allied to the Snowdrops. There are about nine species in all, native of Central Europe and the Mediterranean region. Their flowering period is spread over nearly the whole of the year, the larger kinds flowering in spring and summer; while the smaller species, which at one time were included under another genus, Acis, flower in autumn and winter. As, however, there is no structural difference, they are now all included under the genus Leucojum, although the name Acis is occasionally met with in plant catalogues. Like the Snowdrops, the Snowflakes are great favourites in the garden, especially the Spring Snowflake (L. vernum). This handsome kind comes into flower early in February, and is invaluable for naturalising in such places as the Fern border along with Hepaticas, Cyclamen and Snowdrops. It is equally well suited for planting among deciduous shrubs, where they are not planted too closely together; while in the rock garden groups here and there in odd corners are very welcome. More robust and vigorous in habit is the Summer Snowflake (L. æstivum), which is eminently suitable for the wild garden, where it will flourish and flower well in ordinary soil among the thin grass.

A CLUSTER OF THE SUMMER SNOWFLAKE (LEUCOJUM ÆSTIVUM).

The cultivation of the Snowflakes is quite simple, as most of them, especially the spring and summer kinds, will prove to be at home and thrive in any good deep soil. L. vernum is more partial to heavy loam, and should be planted about 6 inches deep. It is one of those bulbs that dislike disturbance, and should never be kept long out of the ground, as the bulbs soon begin to get soft and shrivel. When planted in this condition they take longer to establish themselves than when put in fresh and plump. The Summer Snowflake prefers a lighter and drier soil with a more sunny position. Here it increases freely, making large tufts of long foliage and producing an abundance of flowers. The little plants belonging to the Acis section require more care. L. autumnale, a typical species of this set, is a charming little plant, and should be provided with a warm, sunny situation, high and dry, and with perfect drainage. Like all the others, it is a deep-rooting plant, and should have a good depth of soil. This may consist of peat and loam in equal parts, and plenty of sand. As the flower-stems are only a few inches high, and there is little or no foliage when they are in flower, they are liable to be splashed with heavy rain. To obviate this it would be advisable to provide a carpet of some low-growing plant like Sedum sexangulare, so that the flowers would be protected and, at the same time, have a background to set off their dainty elegance. The bulbs of some of the larger kinds increase freely, but it is not so with several of the smaller species. Seed has to be relied on as a means of increase, and this should be sown as soon as it is ripe in seed-pans well covered with soil. The pans should be plunged to the rims in a sheltered corner, while a sheet of glass should be placed over them for protection from heavy rain. All the following species are in cultivation, although some are rarely met with:

L. æstivum (Summer Snowflake).—This is a very attractive plant, found wild over Central and Southern Europe, and sometimes met with in moist meadows in Southern England as well as in Ireland. It is very vigorous, often 2 feet high or more in rich soils. It is not at all particular as to soil, a dry bank suiting it almost as well as a moist one, providing the bulbs are planted deeply. Large clusters of long leaves are produced, and the flower-stems as well, each bearing several drooping, white, green-tipped flowers, in summer. These are very useful for cutting purposes, lasting a considerable time in water.

L. autumnale (Autumn Snowflake).—This is the commonest of the autumn-flowering species, and produces flower-stems about 6 inches high when in a flourishing condition. It is a native of Portugal, Morocco and the Ionian Islands. Provided with perfect drainage it is hardy in this country, and is quite in keeping with the choicer plants of the rock garden. It often comes into flower in August and keeps up a succession into October. The dainty flowers, two or three on each slender stem, are white, with a tinge of delicate pink at the base of the segments. It is indeed a graceful little plant, well worthy of the praise bestowed on it. This species ripens seeds rather freely, and these, when sown at once, germinate readily, soon forming flowering bulbs.

L. hyemale (Winter Snowflake).—Similar in habit to the foregoing, this plant comes from the Maritime Alps, and may be grown under the same conditions. It has the same narrow foliage, while the stems are one or two flowered. These are produced in winter, the segments being white with a tinge of green on the back. This species requires a thorough roasting in summer, and should be grown in sandy soil.

L. pulchellum (L. Hernandezii) —This Majorcan plant is closely allied to the Summer Snowflake, but flowers somewhat earlier. It also differs in the flower-stems having smooth edges, while those of L. æstivum are rough. Usually the flowers are more numerous on each stem, but this may be a matter of soil and situation. It is useful on account of its earliness and free-flowering habit.

L. roseum.—A rare little plant from Corsica, with pretty rose-coloured flowers in autumn. They are bell-shaped and produced from one to three on each stem.

L. vernum (Spring Snowflake). The large, handsome, snow white flowers of this species are very attractive when well established, and they are set off by the green blotches on the tip of each segment. It is the favourite member of the whole genus and, perhaps, the most valuable for garden purposes. The first year after planting it does very little, but when established it grows freely with broad, bright green foliage and numerous flowers. Deep planting is essential for this species, especially in light soils. In stronger soil it grows more vigorously and produces larger flowers. It is a native of Central Europe and, where suited, the bulbs increase freely. There is a beautiful variety of this, L. v. carpaticum (L. Wagnerii), which comes from Transylvania. The flowers are usually produced two on each stem, and the perianth segments have yellow tips instead of green. It also flowers nearly a month later than the type, thus maintaining a succession of welcome flowers. Seeds are freely produced, and self-sown seedlings frequently appear round about established clumps. W. I.

DAFFODIL NOTES.

FORCED FLOWERS.—At present we have to be content with the old varieties, such as obvallaris (Tenby), Henry Irving, Golden Spur, princeps and the old double yellow (Telamonius plenus), if we wish to have Daffodils in the early weeks of the year. These are old, well-tried kinds that always behave in a satisfactory manner and to a large extent retain their natural characteristics. Straws show how the wind is blowing. The appearance of a few pots of some of the more uncommon ones at the Royal Horticultural Society's meeting on the 8th inst., and a photograph of a splendid giant Leedsii taken the previous week, and which I was privileged to see, lead me to think that before long we shall be able to add some different types to our old standard forcing varieties. Mr. Chapman had some nice Blackwell and Crown Prince beside his beautiful yellow Freesias. It is true that they were not so good as they will be later on in the open ground, but, all the

same, they were very pleasing. I believe Blackwell will prove itself to be one of the great Daffodils, worthy to rank with Emperor, Empress and Mme. de Graaff. Its forcing properties are no small item in its favour. An extremely lovely old variety that makes an excellent second early is Autocrat. I had some beautiful pots of it last year in the second week in February, and as I am writing this at the same time this year, I am able to report some promising buds which are just beginning to show colour.

A National Daffodil Society.—I have been round the frames this morning and found all my Daffodil seedlings coming up and making a brave show. The connection between this little fact and the heading of the paragraph is that there is every appearance of the flower not only retaining, but increasing, its hold on the public, because of the endless possibilities which loom large on the horizon of its unknown future. It will be long before we come up to them all and find there is no beyond. Several times within the last year or two I have heard whisperings and wonderings as to whether there should not be a National Daffodil Society, with its headquarters in London. What is everyone's business is, more often than not, nobody's. To some extent the Daffodil is an exemplification of this, for I feel pretty confident that if there were such a society there are certain things that would get done which are now left undone. But, on the other hand, it would be a thousand pities to set up an organisation that would clash with any of those at present existing.

Depth of Pots or Bowls for House Work.—Every year, as I contrast the general look of bulbs (especially Daffodils and Tulips) as they flower in the ordinary deep pots or vases with those which bloom in shallower ones, I become more convinced of the preferableness of the latter. Somehow these suit ninety-nine out of a hundred kinds so much the best. Messrs. James Carter and Co. have exactly hit the nail on the head in their introduction of The Carter English Art Ware Bowls (old style), while for those who prefer taller ones the handsome holly green vases of Robert Sydenham, Limited, are hard to beat. Perhaps I might suggest to readers the advisability of observing the difference between the two types of pot.

JOSEPH JACOB.

SWEET PEA CHAT.

SEEDLINGS IN FRAMES.—The young plants grown from seeds sown in cold frames last autumn will now be making excellent progress, and the grower will be estimating how many cups they will bring him before the season is over. It is essential that they shall have unlimited supplies of fresh air, and that in no circumstances whatever shall the soil in which the roots are working get as dry as dust, for if it does the plants will receive a check from which it will take them some time to recover, and the prospects of success will be seriously prejudiced. Twiggy sticks will already have been placed to them, and to these the young shoots ought to be loosely yet securely attached rather than be forced to rely upon their tendrils for necessary support. A very sharp look-out must be kept for slugs, which will work terrible havoc in a very short time among the younger plants, while on no account must birds be allowed to enjoy repeated meals.

SEEDLINGS IN GREENHOUSES.—Seeds were sown in the genial temperature of the greenhouse by many amateurs towards the end of January, and they will have germinated and grown into healthy little plants by now. The earlier they can be removed to the frames the better, but no risk must be taken in this; the plants will obviously be rather tender, and to shift them thoughtlessly from a warm greenhouse to a cold frame, no matter what the weather may happen to be, is to court disaster. As far as watering and sticking are concerned, the procedure is necessarily the same as for plants in frames. Keep them well up to the light and give them the benefit of all the fresh air that is possible, so as to ensure strong, sturdy progress from the start. No attempt must be made to rush them along in heat, as this treatment will not answer for long.

SOWING SEEDS.—Early in March is an excellent time for those amateurs who have only a cold frame at command, and who still prefer to sow under glass rather than in the open ground, to make a start. Either small pots or those 6 inches in diameter may be utilised, the former to accommodate one seed, and the latter to take five placed equidistantly round the sides. The compost should be composed principally of loam, but there must be a good addition of refuse manure as well as some sharp sand to keep it open and sweet. About half an inch will be deep enough to cover the seeds of the majority of varieties; but those with white skins, or which have mauve colour in the blossoms, should not be covered more than a quarter of an inch, ought to have sand above and below them, and must be kept rather drier all along than the others. The grower need not worry himself unduly if he finds a few split seeds; they will simply germinate rather more quickly than those which were sound when sown, but the soil in the pots containing them must not be allowed to get sodden. After sowing, the pots may advantageously be stood on a firm base in the frame, and the lights should always be off except during the heaviest rains, exposure to which would involve the risk of getting the soil too wet.

OUTDOOR SOWING.—Generally speaking, it is too early for outdoor sowing to be done, but preparations should be made for carrying it out about three weeks hence when all the conditions are favourable. The principal operations connected with the soil will have been accomplished long ago; but if it has not been dug over since the autumn or early spring, let this be attended to as quickly as possible, to give plenty of time for settling before sowing.

BIDE'S SWEET PEAS.—For several years Messrs. Bide and Sons of Farnham, in the fair county of Surrey, have had an enviable reputation for the excellence of their Roses, and they have now set themselves the task of building up a good name for Sweet Peas. It is certain that they will do this and that it will not take them very long. Their catalogue for the present season is neat, and it contains all the varieties procurable that are worth growing.

NORTHUMBRIAN SWEET PEAS.—Mr. F. J. Bell, Whitley Bay, has published an attractive list, in which all the leading standard varieties, as well as novelties, are listed with the prices and the number of seeds in each packet. Mr. Bell makes up some splendid collections, from which all classes of grower should be able to get just what they require without the trouble of selecting all the varieties.

SPENCER.

BEGONIA GLOIRE DE LORRAINE IN A SHEFFIELD GARDEN.

SOME GOOD HARDY ANNUALS.

THE following may be sown during the next few weeks: Chrysanthemums in variety, Clarkia, rose and white; Convolvulus major and minor, Cornflowers, various Larkspurs, dwarf Rockets, branching Leptosiphon densiflorus albus, Eschscholtzias, Godetias, Linum grandiflorum rubrum, Night-scented Stock, Virginian Stock and Nemophila insignis.

CALCEOLARIA VIOLACEA.

THIS species of Calceolaria is not a new plant by any means, and yet one very rarely meets with it in gardens. It was introduced from Chili in 1853, and is a distinct break from the ordinary type. Although it cannot be termed a showy plant, it is very pretty and interesting. The flowers are helmet-shaped, and in colour are mauve with dark spots. It is quite hardy in the South-Western Counties, and if planted at the foot of a south wall or on a warm border will make a bush 4 feet to 6 feet high.

Plymouth. E. C. POOLEY.

THE GREENHOUSE.

SAINTPAULIA IONANTHA.

CONSIDERING the ease with which this charming little greenhouse plant can be propagated, it is surprising that it is not more extensively grown by amateurs, and one can only assume that this is due to its quiet beauty not being generally known. It is a comparatively new plant to this country, being first introduced from Eastern Tropical Africa in 1893. As will be seen by the illustration, the plant forms a dense tuft of low-growing leaves, from which spring the flowers, which in the type are bright violet in colour, though the photograph from which the illustration was prepared makes them appear to be white.

In addition to the original species, there are now several varieties which differ chiefly in the size and colour of their flowers. That known as purpurea has extra dark violet-coloured flowers; grandiflora violacea also has deeper-coloured blossoms, which are of large size; and albescens has white flowers, which are, however, sometimes tinged with pink or blue.

The culture of all is the same. Seeds sown at the present time in soil suitable for tuberous Begonias, and the seedlings given the same treatment as these plants until they reach their flowering pots, will produce good plants for giving a display of blossoms in early autumn For the final potting, which should be into 5-inch pots, use a mixture of fibrous loam two parts, coarse peat one part, with a dash of coarse sand and a few pieces of charcoal added. The drainage must be thorough, as the plants appreciate generous supplies of water during the summer months. They should be grown on a stage covered with shingle or other material that can be kept moist, and will need shading from bright sunshine.

The Saintpaulia is one of the easiest plants to propagate by means of leaves. These may be taken off when full grown and planted in extra well-drained pots of soil composed chiefly of clean sand. If kept in a close case in the warm for a few weeks, they will quickly grow and produce young plants, which can be grown on for flowering the same as is done with seedlings. An ordinary warm greenhouse will suit the plants splendidly, and they are excellent for edging stages or for forming low groups in front of taller-growing plants. H.

POINSETTIAS AFTER FLOWERING.

AFTER the bracts have faded, the plants are sometimes rather neglected, being placed in a cool frame or in a cold house and subjected to the frosty air. Although the wood does not show signs of being damaged by such treatment, the ill-effects will appear later on when the stems are cut down and the new shoots commence to grow. The latter will be very weak if the old stems have been slightly frozen. The best thing to do is to place the plants on a shelf in a warm house, withholding water for a few weeks to get the wood thoroughly matured prior to cutting down and re-starting the growth; then the latter will be strong. B.

BEGONIA GLOIRE DE LORRAINE.

THE largest plants in the illustration are from 3 feet to 4 feet high, and were grown from leaves inserted last October. I find the best way to root them is to use 2½-inch pots filled with a mixture of fine peat, leaf-soil and sand. Take the leaf off at full length, insert it not too deeply and secure to a stake. They are not so apt to damp off when treated thus as when put into boxes. If only a few can be rooted this way it is worth the trouble, as they throw up a number of growths and make finer plants than those from cuttings rooted in the spring. I keep them close in the propagating-frame until top growth is well up, gradually expose and pot on as required, using a compost of equal parts fibrous loam, peat and leaf-soil, with plenty of sand and broken charcoal. About the end of July I give them (for the strongest plants) the final shift, using 7½-inch pots. They are grown in the same house in which they are flowering, and under Melons. They always have plenty of room, and are kept clean by dipping and fumigating. They have been flowering since September, and at the time of writing (January 26) I am using them for house decoration. For feeding I find Clay's Fertilizer and soot-water the best. E. MILLS.

Whiteley Wood Hall Gardens, Sheffield.

COLOURED PLATE.

PLATE 1394.

THREE NEW SWEET PEAS.

IN drawing attention to new varieties of the Sweet Pea—a flower that is at present grown in nearly every garden in the United Kingdom—one is confronted with the fact that many so-called new varieties are not new at all, or if they are new they cannot be regarded as in any way superior to varieties that are already in existence. For a new variety to be of any real value it must possess one of two attributes, viz., distinctness, or be superior in some way to an older variety which it may at first sight appear to resemble. By the above statement I do not mean that a variety which is distinct from existing sorts must necessarily be a good novelty; it may be so ugly that one would never think of growing it, or it may be too weak in constitution to justify its inclusion in any collection. But, providing a variety is distinct, and at the same time of a pleasing form and colour, and possesses a good constitution, there is plenty of room for it, numerous though the varieties be that raisers now put before us.

This mention of raisers brings us to the man responsible for the existence of the three novelties depicted in the coloured plate presented with this issue. By quiet work, which he has rightly allowed to speak for itself, Mr. W. J. Unwin has built up a reputation for fixity of stock and excellence of novelties that is to-day second to none. Working under Mendelian principles, Mr. Unwin knows beforehand what a certain cross is likely to produce, and he also knows how long it will take to fix a novelty, if there is any likelihood of its being fixed at all.

First on the coloured plate, reading in the usual way from left to right, is Gladys Burt. This the raiser aptly describes as a soft rich salmon pink on deep primrose ground. At first sight one might suppose that it is a glorified edition of Mrs. Henry Bell, but it is very much better than either that popular variety or Constance Oliver. I had the pleasure of seeing all the varieties shown on the plate growing at Histon last summer, and compared Mrs. Henry Bell and Constance Oliver very fully with Gladys Burt. The vigour of this variety leaves nothing to be desired, and as the flowers are large, beautifully waved and usually produced four on a stem, it will doubtless be seen on many exhibition stands this year.

The next variety is Mrs. W. J. Unwin. I must confess that, previous to seeing this variety, red or rose flaked Sweet Peas had not been by any means favourites of mine; but Mrs. Unwin is so refined a flower, and so beautiful when growing or when cut and bunched, that one cannot help liking it. The very fact that the raiser named it after his wife proves that he had faith in it, and the floral committee of the National Sweet Pea Society granted it an award of merit when grown in the Reading trials last year. Owing to the failure of the seed crop last autumn, Mr. Unwin has not been able to offer seeds of this variety this season; but doubtless a good stock will be available for autumn sowing.

A BEAUTIFUL WARM GREENHOUSE PLANT: SAINTPAULIA IONANTHA.

Although one or two small seedsmen are offering what is supposed to be this variety this year, it is obvious that theirs cannot be the true strain which received the award of merit at Reading, as Mr. Unwin has not yet parted with any of his seeds.

The last variety shown, Eric Harvey, is the newest of the three. Unfortunately, it is difficult to obtain just the right shade in a coloured illustration. A large clump of this growing in Mr. Unwin's garden last summer, close by the entrance, was the prettiest sight of Sweet Peas the writer has ever beheld, and doubtless many who visited Mr. Unwin will remember it. It is quite fixed, but Sweet Pea enthusiasts must wait till next autumn before they can obtain seeds. As will be seen, the back of the standard is for the most part soft rose in colour, while the front of the flower presents an almost perfect picotee marking. The cream or yellow hue shown in the top flower ought not to be there, the ground colour, if one may term it so, being pure white. The flowers are very large, beautifully waved and well placed on the stems, and the plants are very vigorous and of good habit. As a garden variety and for the exhibition table Eric Harvey has a great future before it. For indoor decorations of all kinds it will also prove a welcome addition to existing varieties. F. W. H.

GARDENING FOR BEGINNERS.

HOW TO PROPAGATE COLEUSES.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—Those who like the Jerusalem Artichokes may make a planting of the tubers at this time. They prefer deeply worked soil in a moderately open position. Select the best-shaped tubers and plant them 6 inches deep in rows 4 feet apart, allowing a distance of 2 feet between the plants in the

1.—A STOCK PLANT OF COLEUS FROM WHICH GROWTHS MAY BE OBTAINED FOR MAKING INTO CUTTINGS.

row. Sutton's White is a great improvement on the old purple variety, the tubers being ivory white and of a more uniform shape. Where Seakale roots were taken off the old plants during the winter, made into root-cuttings, tied into bundles and laid in sand, they will now be ready for planting. A good plan is to place them in clumps of three in deeply worked and well-enriched soil; each side of the triangle formed by the three roots should measure about 1 foot. A distance of at least 3 feet must be observed between the clumps. In planting see that the tops of the cuttings, where a wort-like protuberance will have been formed, is placed just level with the surface of the soil, or at the least covered with not more than a quarter of an inch of fine soil. These root-cuttings should form excellent crowns for forcing next winter. Onions that were sown in frames early in January will by now be in their pots, and should be given an abundance of air on all favourable occasions. During fine, dry weather prepare beds for sowing Onions, Carrots, Lettuces, Radishes, Peas and similar crops, as the season has now arrived when some of these must be got in when the outside conditions permit.

Flower Garden.—Providing the weather is suitable and the soil to be dealt with is naturally a well-drained one, the first sowing of Sweet Peas may be made outdoors this week. I prefer to make drills 1 foot wide and about 2 inches deep, or, in the case of clumps, to make a shallow basin of the same depth previous to sowing the seeds. This greatly facilitates watering during dry weather. For this early sowing, and where the flowers are intended for ordinary purposes only, I sow the seeds 6 inches apart and 1½ inches deep. If all grow, every other plant is removed at an early stage of its growth, so that the plants remain 1 foot apart. Three, four or five plants may be allowed to each clump, according to the size desired. It is a good plan to prepare some finely sifted and rather sandy soil for covering the seeds at this time, as this prevents them rotting should prolonged cold and wet weather be experienced. Positions for other hardy annuals should be marked out in readiness for sowing, though with most kinds it is advisable to wait until the end of March or early in April before actually sowing the seeds. Lists of good varieties of Sweet Peas and other hardy annuals will doubtless be given by other writers in THE GARDEN; hence there is no necessity to mention them here.

Greenhouses and Frames.—The present is a good time to sow seeds of such plants as Asters, Stocks, Petunias, Zinnias, Ageratums, and French and African Marigolds, which will be required for planting out at the end of April or early in May. A frame placed over a hot-bed is an ideal place in which to raise the seedlings. Boxes or pans from 2 inches to 3 inches deep form the best receptacles, and these should be well drained with pieces of broken pots previous to being filled with finely sifted soil composed of good loam two parts, coarse sand one part, and well-decayed leaf-soil, moderately dry decayed manure, or even Cocoanut fibre refuse one part. Either of the three last-named substances induce the formation of those fibrous roots which are so valuable when the seedlings have to be transplanted. Make the soil moderately firm and quite level by pressing it with a clean board or the bottom of a clean pot, and leave it so that it is half an inch below the rim of the pan or box. After the soil has been watered and allowed to drain, scatter the seed thinly on the surface of the soil, give a dusting of fine sand to the very small seeds, such as those of Petunias, and cover the larger ones of Zinnias and Marigolds with nearly a quarter of an inch of fine soil and stand in the frame. A pane of glass or even a sheet of brown paper placed over each box or pan will facilitate germination, but it must be removed immediately the seedlings appear. At this time the tiny plants must have ventilation and be grown on as sturdily as possible. In a few weeks they will be ready for pricking off, and hints on doing the work will then be given.

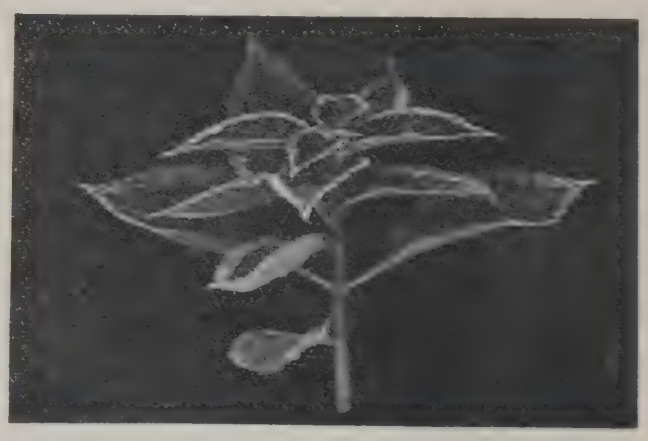
Fruit Garden.—Take advantage of a spell of fine weather to go over the Strawberry-bed and remove all weeds and any stray runners that may have previously escaped. After this is done and the whole bed and alleys have been made tidy, give the surface a good dusting of soot—enough to make it look quite black—especially round the crowns of the plants, but not in the crowns. This is a good security against the depredations of slugs. After the soot may come a good dressing with long, strawy stable manure. This may be put on 6 inches thick, but do not cover the crowns of the plants. Subsequent rains will wash any nutriment it contains down to the roots of the plants, and by the time fruits are ripening the straw will form a clean bed for them to rest upon. A little later on, say, in April, the plants may be given a light dressing of sulphate of ammonia, about a teaspoonful, finely crushed, to each plant being sufficient. A. A.

INCREASING THE COLEUSES.

THE Coleus is a most interesting family of plants, and it embraces varieties that are admired by most lovers of gardening when the plants are grown satisfactorily. The Coleus is also known by the common names of Flame Nettle and Nettle Geranium. An idea prevails that the plant can only be grown in a stove greenhouse, and many novices may have been deterred from attempting its culture in consequence. Where real care is observed the plants may be successfully grown in an ordinary heated greenhouse, and even in a sunny window when they are once established in their final pots. An ideal position for the Coleus, however, is a warm greenhouse, and such a structure is necessary to preserve the old plants through the winter season, and also for the purpose of propagation in the early spring.

Doubtless many readers of THE GARDEN have a few old stock plants of the different varieties of the Coleus that they may be anxious to deal with, and in such cases no time should be lost in commencing operations. There is no better period for commencing the work of propagation than in February or March, and the insertion of cuttings may be continued for several months, but, of course, the later the cuttings are propagated, the less will be the size of the plants ultimately.

To teach the beginner how to proceed, an ordinary stock plant of a Coleus, as usually seen in the early spring, is shown in Fig. 1. With the lengthening days and better climatic conditions these plants now present a much finer appearance than they usually do a few weeks earlier. Old plants that are to provide the necessary supply of cuttings should, therefore, be in much the same condition as that represented in the illustration under notice. Such a specimen should easily provide half-a-dozen or more cuttings, and as a consequence of their severance from the old plant



2.—A TYPICAL GROWTH SUITABLE FOR MAKING INTO A CUTTING.

the latter will, in a very short period, yield another supply of cuttings.

There may be readers, however, who have no old stock plants to draw upon for their supply of cuttings, and who may be in doubt as to what to do in the circumstances. They may either procure cuttings from a florist of repute, who is usually prepared to sell them at threepence or fourpence each, or a proportionate rate per dozen, or they may, later on in the spring or early summer, obtain rooted cuttings or young plants at a slightly increased cost. The character of a growth as severed from the old plant may be better understood and appreciated by a reference to Fig. 2. The would-be grower should remove the lower leaves, cutting them off close to the stem of the shoot, and the stem

should be cut through at a point slightly below a joint. A cutting properly prepared and a similar cutting properly inserted in a deep 2½-inch pot are shown in Fig. 3.

Cuttings root in a gentle bottom-heat with the greatest ease, and if light soil, of which Cocoanut fibre refuse may be the principal ingredient, is utilised, the cuttings will seldom fail. Leaf-mould may be used with equal success in conjunction with silver sand and a small quantity of sandy loam. It is well to sift these, passing the soils through a sieve with a rather fine mesh and mixing well before using. Press the soil firmly at the base of each cutting, as this is a most important factor in the success of the rooting process. As mentioned before, a gentle bottom-heat and the use of a small propagating-frame on the greenhouse bench will bring about the rooting of the cuttings in a little while.

As soon as the cuttings give evidence of making new growth, they should be removed from the propagating-frame and be gradually inured to

3.—A PREPARED CUTTING ON THE LEFT. NOTE THAT THE LOWER LEAVES HAVE BEEN REMOVED AND THE STEM CUT THROUGH JUST BELOW A JOINT. ON THE RIGHT IS A CUTTING INSERTED IN A 2½-INCH POT.

less tender conditions. It will not be long before they will attain the dimensions represented in Fig. 4. Here we have a nicely established young plant with great possibilities. To induce a bushy style of growth the point of the plant should be pinched out; some growers do this when the young plants are 6 inches in height.

The plants will need to be pinched two or three times before the necessary bushy character will be developed. Repot from time to time as required, and this may be done frequently, as they are most vigorous in their root-action. Never pinch the growths and repot at the same time. An interval of fully a week should take place before the repotting is done. Pretty plants may be grown in 5-inch or 6-inch pots; but if large specimens are desired, those 8 inches, 10 inches, or even 12 inches in diameter should be used. A suitable compost for the shifts here referred to should comprise three parts turfy loam and one part leaf-mould, with a liberal addition of coarse silver sand. A few good named varieties are Prince Albert Edward, Duke of Edinburgh, Countess of Dudley, Mrs. R. Christian, Hendersonii, Empress of India, Princess of Wales, Vesuvius, Cloth of Gold, Resplendent, Beckwith's Gem and Dr. Jackson. D. B. C.

BEDDING-OUT CALCEOLARIAS.

CUTTINGS which were inserted in cool frames last autumn are now rooting freely. There has been no necessity for covering the cuttings with mats or litter for long periods against frost, and so the young plants are now nice and stocky. The present is a good time for pinching out the points of the plants to induce the growth of side shoots. In this way very bushy plants are available for bedding-out purposes, and they are far better than those with long, spindling single stems, which do not quickly recover removal nor fill up space. If pinched now the young plants will be fit to transplant in another bed or open frame in March.

PEACHES IN AN UNHEATED PEACH-HOUSE, &c.

[*In Reply to "Single-handed."*]

THE cause of stone-splitting in Peaches is generally attributed to defective fertilisation of the bloom, and this, again, is usually caused by the trees themselves not being in such robust health as they might be, and therefore unable to produce strong flowers with abundance of pollen. You say your trees are growing in poor soil and that they have had no manure of any sort for years, also that they have this year been subjected to a severe attack of red spider and black aphis. Under these conditions it is not to be wondered at that your crops are not so satisfactory as you could wish. Fruit trees in a weak condition of health are always an easy prey to diseases and the attacks of insect pests; while, on the other hand, trees in robust health resist them. We advise you to fork up your border at once, until you come to a good body of roots (generally about 6 inches or 7 inches), remove all this soil, and replace with the following to the same depth, treading it down firmly: To one barrow-load of turfy loam, cut 4 inches deep from old meadow pasture (cutting off the grass first), add a peck of well-decayed stable manure, the same of quicklime, a gallon of bone-dust, and a peck of old mortar or plaster rubble to keep the soil open and porous. This new soil you will find will be filled with a network of new feeding roots early next summer, greatly helping the trees to carry the weight of their crop and aiding them in the better and healthier development of growth for the following year's fruiting. Before doing this give your trees a heavy drenching of liquid manure from a stable or cow-yard as soon as the fruits are gathered.

With reference to some well-formed fruits falling, this again points to the weakness and poverty of your soil, and especially, we think, to the want of sufficient lime in its composition. It is impossible to succeed in the culture of stone fruit when grown in limeless soil. The top-dressing as above advised, we believe, will cure all this, especially if you can occasionally water with liquid manure during the summer. If you cannot top-dress, the next best thing you can do is to fork in a peck of lime and half a gallon of bone-dust to the surface soil of each tree, watering it in.

The clubbing of the Cabbage tribe is caused by a weevil. The best remedy we know of is to mix 1oz. of Calvert's No. 5 Carbolic Acid with two gallons of soap-suds, and add sufficient clay to make a thin paste. Dip the roots of the plants into this before they are set out. Water the soil before the plants are put in, so that it will not be necessary to water them afterwards for fear of washing away the dressing.

TRANSPLANTING SEEDLING BEGONIAS.

BEGONIA seeds, when they are sound and are sown thinly on the surface of moist soil in a flower-pot and kept in darkness, quickly germinate. The compost must, however, be maintained in a regular state of moisture. The inexperienced cultivator may succeed very well in the matter until this seedling stage, and then fail through wrong treatment. If the seedlings are neglected in the least they will damp off wholesale through possible errors in watering and undue exposure to strong sunshine, and it is useless to leave them in the seed-pans as they will not grow freely. The seedlings must be transplanted when they only possess two small leaves and a third one is just visible. Of course, they are too small to handle in the usual way, but there is another method. Fill more pans with a light, sandy compost—loam, leaf-soil and sand—and make it fairly firm, then saturate it with water. Also water the seedlings by immersion, and then lift each one separately by means of two pointed sticks, and gently press the roots into the new soil with the points of the sticks at 1 inch apart. Keep the sticks from clogging with soil by frequently dipping them in water. So treated, the young Begonia seedlings will soon grow into fine plants. SHAMROCK.

ROSES FOR NEW BEDS.

[*In Reply to "S. J."*]

THE oval bed of 5 feet by 11 feet will take about one dozen standard Roses. Some good Hybrid Perpetuals and Hybrid Teas for this bed would be *Frau Karl Druschki, Hugh Dickson, *Margaret Dickson, *Ulrich Brunner, Mrs. John Laing, Charles Lefebvre, Prince C. de Rohan, *Rev. Alan Cheales, *Mme. Isaac Pereire, *Caroline Testout, *Augustine Guinoisseau and Mrs. R. G. Sharman Crawford.

We have named two Hybrid Teas, as they are so very beautiful and free flowering that they would give you such an abundance of bloom that you do not obtain in the Hybrid Perpetuals. A few others of these two tribes suitable for the end beds would be *Viscountess Folkestone, *Grace Darling, Prince Arthur, Marquise Litta, *Dupuy Jamain and Camoens. For the round bed in partial shade you would require about twenty standards. You might include those marked with an asterisk in the above list, and, in addition, the following rugosas: Conrad F. Meyer, Blanc Double de Courbet, Mrs. Anthony Waterer. Hybrid Teas and Teas: Mme. Alfred Carrière, Grüss an Teplitz, M. Desir, Lady Waterlow, Gloire de Dijon, Cheshunt Hybrid and Bouquet d'Or. These last seven should be in the centre of the bed. As to preparing the soil, you should throw it out to a depth of 3 feet, fork up the bottom, then return the soil, mixing with it as you do so about three barrowfuls of good decayed manure to each bed. If you have any better soil in the place, substitute this for the rather poor soil of the beds. The work must be done at once; if delayed now it will have to be deferred until next autumn.

4.—A YOUNG PLANT WELL ESTABLISHED IN A 3-INCH POT.

THE TOWN GARDEN.

POTTING SOIL.—That the villa gardener and town dweller are often handicapped in the matter of obtaining suitable soil for potting and planting there can be no doubt, and those better circumstanced can but sympathise with those others who, having to fight the foe of inexperience on all hands, have also to carry on their warfare with so very indifferent a material as bad soil. It is frequently remarked that a "bad workman always complains of his tools," but this cannot be said of the uncomplaining amateur, who thinks nothing of going into his little back garden and digging up a handful or two of the "dirt"—his own special name for the uncongenial garden soil—and sowing the seeds of choice plants forthwith without the least compunction. Possibly where "ignorance is bliss 'twere folly to be wise," yet out of it all one has seen not a few surprising successes, even though one must also confess to a large number of fatalities, which, after all, is but the equivalent of non-success.

HOW TO PROCEED.—Now, thoroughly prepared soil is a matter of such supreme importance in the raising of seedling plants or cuttings that I cannot imagine that any amateur would be without the right article did he or she know where to obtain it. Where the garden is of good size and the pocket of its owner liberally supplied, the better way would be to secure some top spit from an old pasture and stack it for some months prior to its being required for use. By placing a layer of the turves and then a layer of decomposed stable manure, together with an occasional sprinkling of bone-meal, a heap of material of the highest value is formed, and which cannot be surpassed. The smaller amateur who cannot do this should apply to the nearest nurseryman and obtain a sack of prepared soil, stating clearly the purposes for which it is required. Such a soil, full of the essentials to plant-life, has only to be touched by the hand to get an idea of its superiority over the common or garden soil, and to which seedlings and freshly rooted cuttings take so readily.

THE IMPORTANCE OF DRY SOILS.—The common soils of the garden are frequently fatal or highly detrimental to the proper vegetating of seeds because of their over-wetness, lack of porosity and the absence of those life-giving attributes which are usually found in pasture soil after it has been well prepared. For the smaller flower seeds, fine, light and sandy soil that is in a dryish condition is the best, and seeds sown in such a soil only require intelligent care and treatment to bring them to perfection. Very small seeds like those of the Begonia require to be sown on a very even surface, and the lightest covering of sand or none at all often suffices. Seeds of larger size may be buried proportionately deeper, though none of the flower seeds raised in pots or boxes require to be sown at more than a quarter of an inch in depth.

BORDER CARNATIONS FROM SEEDS. — In a former note I referred to Marguerite Carnations, and possibly a few remarks concerning border Carnations would be not unwelcome. The value of the border Carnation when raised from seed can only be fairly judged when an early start has been made and the bushes when providing whole sheaves of blossoms are seen at a later date. To achieve full success the seeds should be sown during the early months of the year, the seedlings to be grown on quickly and planted out in May or June in the open quarters or beds. There should be no attempt to starve the plants, but rather to treat them liberally from the start. The result of the first season's growth will be a cushion of shoots of probably not less than 1 foot across, and in this way the plants will winter quite well, making no attempt to flower. Indeed, any plants attempting to run to flower in the first season should have the flower-spikes removed, as it not infrequently happens that the flower-buds are spoiled by frost.

HOW TO PLANT.—Where the plants can be grown in beds apart, they should be set out not nearer than 18 inches asunder. In good ground the seedlings will occupy the whole of this space and produce spikes of flowers literally by the hundred. E. H. JENKINS.

CHRYSANTHEMUMS.

EARLY-FLOWERING CHRYSANTHEMUMS.

A SELECTION FOR THE BORDER.

ALL too frequently growers of the border Chrysanthemums show undue haste in the propagation of these beautiful autumn-flowering plants. In some gardens cuttings are inserted as early as December, and quite a large number of plants are propagated in January. Much the finest plants are developed from cuttings inserted in the early spring, and if choice of period for propagating the early-flowering Chrysanthemums were left to the writer, the month of March would be selected without hesitation. By this period most of the old stools should bristle with numerous shoots of recent growth, and with such material a large number of plants could be raised with comparative ease. The rooting process is rapid at this advanced period, and young plants are soon obtained. If these are grown on carefully from the first, and planted out in prepared soil in the cold frame, sturdy growth is assured. As the weather becomes more genial the frame lights may be removed, by which process the growth becomes hardened and short-jointed, and the plants in excellent condition for planting outdoors in mid-May. Sturdy, bushy, free-flowering specimen plants are developed in this way, and those who have never tried this less tender method of dealing with the early-flowering Chrysanthemums should give it a trial to be convinced of its undoubted advantages. Planting out in frames is infinitely better than coddling and confining the plants in pots, as formerly practised by trade and other growers. In the subjoined list is given a careful selection of Japanese varieties that are specially well adapted for the border. Growers of exhibition varieties would naturally expect to see included in the selection many other varieties than those mentioned; but my desire is to recommend only those that are known to do well in the outdoor border. Readers of THE GARDEN should procure cuttings or plants of the following twenty-four varieties:

Ethel Blades.—A comparatively new variety. The plants produce a free display of dainty flowers in pretty sprays on stout, erect stalks; colour, bright chestnut; very effective. Height, 3 feet. Comes into flower in September and continues in bloom well into October.

Roi des Blancs.—The best of the early-flowering pure white kinds. The plants flower in the greatest profusion and have flowers in fine sprays. Blooms in September and October. Height, about 3 feet.

Claret.—For the border this is one of the most effective plants. Individual blooms may not be very attractive, but the plant as a whole is beautiful. It is very free-flowering, and the colour bright claret. In bloom throughout September. Height, 2½ feet.

Nina Blick.—One of the sturdiest of all the early sorts. The plant is bushy and vigorous, and the flowers fairly large and very full; the colour may be described as bright reddish bronze. It is most attractive in September and early October. To be seen at its best this plant should be partially disbudded. Height, rather less than 3 feet.

Normandie.—A comparatively new Continental introduction certificated by the National Chrysanthemum Society in 1908. It flowers quite freely, and individual specimens are of good form; colour, a delicate tone of pink. In flower during September and the earlier half of October. Height, about 2½ feet.

Goacher's Crimson.—This excellent variety is still popular. The flowers are large and of good form, and they are freely produced on plants of capital growth; colour, rich crimson, with golden bronze reverse to the florets. In flower September and October. Height, about 2½ feet.

Leslie. — Another beautiful novelty. The flowers are borne in excellent sprays on stems of good length and erect; colour, bright yellow. This plant blooms most persistently; it comes into flower sometimes as early as August, and continues to bloom well into October. Height, rather more than 2 feet.

Pride of Keston.—This variety is usually appreciated because it flowers rather later than most others, being at its best throughout October. The flowers are of pleasing form and freely developed on plants with a good habit of growth; colour, deep rose, with silvery reverse. Height, 3½ feet.

Rosie.—For the border this is another superb variety. It is dwarf and sturdy, the branching growths being very strong, and the flowers are borne quite freely from the latter half of September till October is well advanced; colour, bronzy terra-cotta. Height, 2 feet.

Perle Chatillonaise.—This is a capital plant, rather taller than most others; its height is fully 3½ feet. The flowers are pearly white, flushed pink, and they are developed in handsome sprays on stout, erect flower-stalks. Disbudded flowers are large and very beautiful. In flower from late September till frost destroys the display.

Fée Japonais.—A dainty plant that yields a profuse display of beautiful creamy white blossoms having long, curling and twisting florets. Charming for decorations. Comes into flower in early September. Height, 2½ feet.

Improved Massé.—This is a seedling from the well-known Mme. Marie Massé, but is much finer. The flowers are large and of good form, and their colour may be described as rich rosy mauve. Flowers in September and October. Height, 2½ feet.

Polly.—An old and very popular border variety. To be seen at its best this plant should be partially disbudded. As a result of this treatment the blooms are large, full and of good form; colour, deep orange yellow, shaded with bronze. A September and October Chrysanthemum. Height, about 2½ feet.

Freedom.—This comes into flower in late September and maintains a display throughout October. The flowers are full, of good size and of pleasing form; colour, rosy purple. Height, 4 feet.

Ethel.—This is a member of the Mme. Marie Massé group, being a primrose-coloured sport from Rabbie Burns, a well-known cerise kind. Free flowering and robust, bushy habit. September and October. Height, 3 feet.

J. Bannister.—A beautiful sport from Perle Chatillonaise; colour, lemon yellow, shaded coppery red. When disbudded the flowers are very beautiful. In other respects the plant is the same as the parent variety.

Doris Peto.—Another most satisfactory variety. The flowers are fairly large, of good form and pure white. Partially disbudded sprays are very beautiful. September and early October. Height, about 3 feet.

Vesuvé.—An extremely free-flowering variety of a chestnut crimson colour, with golden reverse to the florets. Very bushy growth. In flower during September and October. Height, 3 feet.

Chatillon.—This variety has flowers of a rather novel colour—orange and ochre yellow. The plant blooms profusely, and flowers in September and October. Height, about 2½ feet.

Provence. — Beautiful, free-flowering plant bearing lovely coral pink flowers. The sprays should be partially disbudded to be seen at their best. Comes into flower in early September. Height, about 3 feet.

Clara.—This is remarkable for its profuse display of bloom. Individual flowers may not be particularly attractive, but the plant is a veritable mass of bloom in September; colour, deep canary yellow. Height, rather less than 3 feet.

Diana.—A free-flowering plant that is useful in late August, September and early October. The flowers are full and of rather compact form. Colour, deep bronzy orange. Height, about 2½ feet.

Howard H. Crane.—For displays outdoors throughout October this pretty chestnut-coloured variety of pleasing form is distinctly useful. The plant is bushy, free flowering and has a good constitution. Height, 3½ feet to 4 feet.

Elstob Yellow.—This is very similar in its character to the well-known Horace Martin, the yellow Mme. Marie Massé. The flowers are borne in beautiful sprays without disbudding, and the plant is bushy and vigorous; colour, deep yellow. Height, 3 feet.

Highgate, N. D. B. CRANE.

THE BEST TWELVE SWEET PEAS.

THE article by "Spencer" which appeared in our Sweet Pea Number published on the 12th inst., and in which he gave what he considered to be the best twelve Sweet Peas, has created a considerable amount of interest, and in response to our invitation many readers have sent a list of what they consider a better dozen than those named by "Spencer." We quote the following:

IT has given me the greatest pleasure to read from time to time the practical articles on Sweet Peas by "Spencer" in THE GARDEN. In regard to the best twelve varieties of Sweet Peas, I rather fear there will not be many readers who will agree about all of them. So far as my experience goes in varieties prior to this year (I have no knowledge of the novelties for 1910), I find for most purposes the following varieties at the top. As a white Etta Dyke is outstanding, beating Nora Unwin in size of bloom, substance and depth of colour, while the stems are usually longer. Clara Curtis as a cream is as good as it is possible to get. For a crimson The King (Dobbie) is a splendid sort. When well grown and slightly shaded the colour is superb. King Edward Spencer will no doubt find many supporters, but with me the colour is too purple to be of the same quality as The King. As a blush Mrs. Hardcastle Sykes is still very hard to beat, and, given a true strain, if I were to single out one variety only, this would be the one. As a creamy pink Constance Oliver is to the front, but many may prefer Mrs. H. Bell. Both are worthy of a place if space permits, but as twelve is the number at disposal, I prefer Constance Oliver. Olive Ruffell is a delightful colour; a rosy salmon I would term it. Last year it was splendid here. Unfortunately, it does not stand bad weather, and is apt to go back in colour when the plants are some time in flower. Many are the debates as to whether Mrs. C. W. Breadmore or Evelyn Hemus is the better sort. So far as my experience of them is concerned, I have found Mrs. C. W. Breadmore to be the stronger grower. It also gives longer spikes, and four blooms on a spike are more common than on Evelyn Hemus. There is little to choose between them, but on a vote I should certainly stand by the former. Then in a dark colour, in maroon we have George Baxter, an ideal variety; a strong grower, nearly always four well-placed flowers on an 18-inch stem. This variety was introduced by Mr. R. Bolton, and I am surprised it is not much more grown. As a white ground with picotee edge Elsie Herbert should be a leading variety. No doubt members of the National Sweet Pea Society may class it as too much alike with Mrs. C. W. Breadmore.

In the lavender section Lavender G. Herbert and Asta Ohn are in very close company, so close I fear that few can see any difference. As a supporter of home-grown seeds I must say Lavender G. Herbert. A grand old variety that always appeals to me fills up the orange section. In Helen Lewis we have a variety that is quite up to anything I have yet seen, and if the new varieties are better they must be a decided improvement. As the last, in George Herbert we have a rosy carmine which is equal, if not superior, to quite a host of varieties very much similar in every feature. Many growers will ask, What has become of Mrs. A. Ireland? but so far as my experience of it goes, the stems are slim and short, and the colour, while grand in masses, is thin when closely looked into. For freeness of flowering and garden decoration it is in the front rank, but not for cut flowers or exhibition. Two others that should be well looked after are Audrey Crier and our old favourite Countess Spencer. I trust that the present proposed Scottish Sweet Pea Society will receive sufficient support to encourage the gentlemen who have taken the matter up. CHARLES SHAW.

Boquhan Gardens, Kippen Station, Scotland.

I READ the Sweet Pea Number with great pleasure. I note you ask those who can give a better dozen than "Spencer" to send them in. I am an exhibitor, and I cut my first flower this year on January 5. White, Etta Dyke (Breadmore); pink, Mrs. H. Bell (Robert Bolton, Carnforth); lavender, Mrs. C. Foster (Robert Bolton); blue, Zephyr (Biffen); rose, Mrs. Wm. King (E. W. King); red, Sydenham's Maud Holmes (Holmes); cream, Clara Curtis (Unwin); stripe, Mrs. Wilcox (Gilbert); orange, Nancy Perkin (Perkin); dark, Tom Bolton (Robert Bolton; fancy, Mrs. C. W. Breadmore (Breadmore); mauve, Queen of Norway (Robert Bolton). In this list I have left out several which are not fixed or are this year's novelties.

G. A. ASHWORTH.

Harefield, Wilmslow, near Manchester.

IN availing myself of your invitation to all readers of THE GARDEN to name a better dozen varieties of Sweet Peas for exhibition than those "Spencer" has given, may I be allowed to make a few remarks regarding his selections. He mentions King Edward Spencer as being a sun-proof crimson. He is much mistaken, however, as it burned rather badly with me last year, and as its substitute I should recommend G. C. Waud or King Alfonso, both being good sun-proof crimsons. In my opinion Mrs. C. Foster takes the lead in the lavender varieties, and I consider a good bunch of Elsie Herbert equal to one of Evelyn Hemus. "Spencer" also recommends Black Knight Spencer as being a good dark variety; it certainly is, but for exhibition I consider Tom Bolton the best, as also in the case of The Marquis, where I should give the premier place to Menie Christie, as it shows other varieties to better advantage than the former. The following varieties are those that I consider a better dozen than "Spencer's" (and, if well grown, will require some beating), namely: Cream, Clara Curtis; maroon, Tom Bolton; crimson, G. C. Waud or King Alfonso; white, Etta Dyke; orange salmon, Earl Spencer; lavender, Mrs. C. Foster; pink, cream ground, Constance Oliver or Mrs. H. Dickson; orange, Helen Lewis; picotee, white ground, Elsie Herbert or Picotee; magenta, Menie Christie; blush, Mrs. H. Sykes; and rose and carmine, John Ingman. GREENHORN.

I QUITE agree with "Spencer" that "there is no such thing as a best dozen." Soil, climate and aspect must always be taken into consideration, but I think it is possible to get a good cream or primrose even though the clump of Clara Curtis fails, as mine did last year. I found Queen Victoria Spencer a very valuable substitute, though we are told "no second can be suggested." Also I do not quite understand the following remark, "Also strong in shade, superb in form and large in size are The Marquis and Prince of Asturias." The latter is almost identical with Black Knight Spencer, already given in the dozen, and The Marquis as I have grown it is rosy mauve lavender. A dozen that will take some beating (if well grown and staged) consists of Elsie Herbert, Prince of Asturias, Etta Dyke, Helen Lewis (Breadmore's silver medal strain), Phenomenal, Countess Spencer, Asta Ohn or Frank Dolby, Mrs. Routzahn Spencer, Queen Victoria Spencer (if Clara Curtis is not available), Menie Christie, A. J. Cook and King Edward Spencer. (Mrs.) G. LEIGH SPENCER.

The Priory, Clifford, Herefordshire.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Moles in soil intended for Sweet Peas (*Sweet Peas, Walsall*).—We do not think it is of any use to bait your traps with worms dipped in strychnine, because, if the moles could be relied upon to eat worms treated in this way, there would be no need for the traps. Mole-traps are best set in the runs in hard soil. Try and find where the animals cross a path, or where they go for water, and set your traps in these runs. Doubtless, if you can repeat the applications of Apterite at intervals of a few weeks, this will keep the moles away from your Sweet Peas, but you should also endeavour to trap the pests. Use gloves when setting the traps. If you can find out at what time the moles usually throw up their heaps (often about 11 a.m.) and watch for them doing so, you may, with the aid of a spade thrust quickly and deeply into the soil, be able to throw out the mole and kill it. When watching you must be very quiet, and the work of digging out the pest must be done quickly.

Top-dressing for Clematises (*Foreman*).—Instead of old mortar rubbish as a top-dressing for Clematises you may use lime. Do not, however, allow unslaked lime to come in contact with the roots or stems. A few hours on the ground will make it quite safe. You can, if you like, mix it with manure beforehand, which would answer the purpose.

THE GREENHOUSE.

Chrysanthemums.—Classification of varieties and the stopping and timing of the buds (*J. F., Dumbartonshire*). — The times for stopping and timing the following Chrysanthemums are for Southern growers, so that Midland cultivators should begin about a week and Northern growers ten days to a fortnight earlier. If you will observe this rule throughout your list, you should succeed in growing good blooms. The decorative and single varieties should be grown in bush form, and to ensure the latter condition of the plants they should be pinched first when 6 inches high, and each succeeding 6 inches of growth should be treated in like fashion, giving the final pinching of the plants at the end of June.

From this point take on the decorative and single kinds to the terminal buds.

Variety. Japanese.	*When to Pinch Plants.*	*Which Buds to Retain.*
Mrs. E. Hummel ..	March 15	Second crown
Mrs. W. H. Fowler	May 21.. .	First crown
Mrs. Greenfield ..	Last week March	Second crown
Mrs. J. Beisant ..	Early April ..	,, ,,
Mme. G. Rivol ..	May 10..	First crown
Rayonnante ..	May 25..	,, ,,
Lady Esther Smith	April, first week	Second crown
Mme. M. Ricoud ..	April 10	,, ,,
Sarah Owen	Early April ..	,, ,,
Dazzler	April 10 .. .	,, ,,

Decorative Japanese: Wm. Holmes, N.C.S. Jubilee and Bessie Chapman. *Pompon:* Sœur Melanie. *Single-flowered:* Miss Jessie Dean, Miss Annie Holden, Earlswood Beauty, Miss T. C. Warden, Miss Crissy, Miss A. Holden, Miss T. Bird, Linton, Lilian, Ryecroft Star, Doris Stevenson, Fairy Queen and Queen Auratia. With few exceptions we have been able to trace the varieties mentioned in your list. Some of them are so old that they are long since out of cultivation.

Azaleas for inspection (*Hon. Mrs. H. B. H.*).—The Azaleas are attacked by the Azalea gall fungus, Exobasidium japonicum. This fungus has only once or twice done damage in this country. There is no cure, but the galls should be picked off and burned. The whitish powder with which the galls are covered is the means by which the fungus spreads, and as the spores are produced in enormous numbers, it would be well to remove the galls as soon as possible.

Treatment of Cannas (*Pipkin*).—Your Cannas should be potted at once in some good soil, such as a mixture of two-thirds loam to one-third well decayed manure, and a little sand. Failing the manure, leaf-mould may be used instead. If the plants are in the shape of single crowns, in all probability pots 5 inches in diameter will be large enough for them, and if they are in masses or clumps you can, if you wish to increase the stock, pull them to pieces. In potting, the growing point of the rhizome, that is to say, the portion whence the new leaves will be produced, should be just below the surface of the soil. After potting is done, your greenhouse, with a temperature of 50° to 55°, is just the place for them. Water should be given sparingly at first, but fresh roots will soon be pushed forth and new leaves make their appearance, when the supply must be considerably increased. It may be that the rhizomes you have can be conveniently put into pots smaller than 5 inches in diameter, but even then this just named size is the best, as 5-inch pots allow the plants to reach an effective size by bedding-out-time, and if put into smaller ones they would need a shift. When thoroughly established a liberal amount of water at the roots is necessary, and an occasional syringing will be beneficial. Just in the spring, when the young leaves are very tender, they are, when under glass, sometimes attacked by aphides, or green fly, which soon injure them. Vaporising with the XL All Vaporiser will, however, destroy these pests.

Pests in soil of pot plants (*J. Brown*).—The best way to kill the pests in the soil of pot plants is to purchase a small tin of Apterite or Kilogrub. Make three holes, from 2 inches to 3 inches deep, in the soil in each pot, and sprinkle half a teaspoonful of the powder in the holes, afterwards filling them with soil.

FRUIT GARDEN.

Pyramid fruit trees and vegetables in an orchard (*Orchard*).—Seeing that your trees are about ten years old and are planted only 9 feet apart, also that they are in vigorous health and growing freely, we would certainly advise you to discontinue growing vegetables among them. It will also be well to manure less freely, but still not to withhold it altogether. We suggest (if you have not already manured the land) that you give it now, at a convenient time, a dressing of bone-meal, say, at the rate of a handful to a square yard, forking it into the ground not too deep. The following year give a light dressing of well-rotted farmyard manure, and the next year bone-meal again. There is no better way of manuring fruit trees than this, as we have proved over many years. Do not lay the land down with grass among the trees. The grass would immediately cripple them, and in the course of a few years effectively ruin the trees. We suggest that you have paths formed between the rows of trees, consisting of stepping-stones or flags laid informally down on the surface of the ground in a couple of rows or so, at about 10 inches or a foot apart, planting the spaces between them with dwarf-growing bulbs, such as Winter Aconite, Snowdrops, Squills, Glory of the Snow and Crocus, and planting taller bulbs thinly by the sides of the paths, such as Narcissus, Tulips, &c., thus converting your orchard, at nominal cost, into a most interesting and charming spring garden. The bulbs would do the trees no harm whatever.

Diseased Apple twigs (*M. E R*).—There are present, in addition to American blight, mussel scale, Apple psylla and a few Apple aphides. The mussel scale may be recognised by the dark brown mussel-shaped scale formed by the female, which at this time of year covers the eggs of the pest. The eggs of the Apple psylla or sucker are greyish white, rather elongated in form and, like the mussel scales, are closely attached to the bark. The aphis eggs are larger and shiny black, also attached to the bark. There are, in addition, numerous eggs of beetle mites, but the last are not injurious. The mites are also present. They are of a bright red colour, and their eggs are of about the same shade and globular. In addition to the alkali wash, which should be applied at once, and quite forcibly if it is to do any good in destroying the American blight, it will probably be necessary to use a nicotine wash a little later. The alkali wash often destroys eggs of mussel scale and aphis when it is put on late in the dormant season of the trees, but it has no effect upon the eggs of psylla. The only thing that proves really effective against this pest is a nicotine wash applied soon after the eggs have hatched. The hatching takes place some time in April, and watch should be kept. A spray of lime, sulphur and salt has some effect, but the nicotine wash may be applied even when the trees are in flower.

When to apply Thomson's Vine Manure (*E. E. F.*).—Now is a good time to apply the first dressing of the above manure.

Heating a vinery for Black Hamburgh Grapes with stove (*P. C. B.*).—Your Black Hamburgh Vine will succeed better, we think, without the stove than with it in the climate of Guernsey. As soon as you find your Vine showing an inclination to grow (by the swelling of the buds), syringe the Vines, walls, border and all available surfaces of the vinery (so as to create a moist atmosphere) from 3 p.m. to 3.30 p.m., closing all the ventilators of the vinery at the same time in order to raise the temperature. On a sunny day the thermometer may be allowed to rise to 75° Fahr.; as the sun declines in power so will the heat subside. The next morning at 8 a.m. open the top or back ventilators slightly, giving more air by the same ventilators as the day advances and the sun-heat increases, closing the vinery after syringing at the same time as the day before. On dull or cold days little or no air will be required, and the syringing on such days should be less copious. You must be careful not to open the front ventilators at all until about the second week in April, depending entirely on the back or top ventilators to keep down the temperature to the desired heat in sunny weather.

MISCELLANEOUS.

South African Ferns for growing outdoors (*K. M. T.*).—We regret we cannot comply with your request, as Ferns native of South Africa require the protection of a greenhouse, and, consequently, will not give satisfaction if planted outside in your district. Ferns are also remarkably dissimilar in character, and you give us no idea of the purpose for which you require these. Of the vast number of hardy Ferns, selections could be readily made for various conditions, and if you will supply us with further information, we will do what we can to assist you. At the same time, we cannot recommend South African Ferns for outdoor culture in Yorkshire.

Sparrows in gardens (*J. A. P.*).—We thank you for kindly sending the extract, which, we regret, we cannot find room for. We fear the sparrow will always be with us, whatever steps are taken for its destruction. The most humane method of reducing its numbers is by shooting, netting or trapping during the winter months. All garden crops that are known to be attacked must be protected by means of wire guards, fish-netting or black cotton. In many years of practice we have found this protection absolutely necessary.

Mice eating Strawberries and Crocus (*M. G.*).—Under the circumstances we think your best course would be to try Danysz Virus, a special preparation that has been found very effective in exterminating rats and mice, and is said to be harmless to cats and dogs. You could obtain prices and full particulars from the Danysz Virus Company, 52, Leadenhall Street, London, E.C. If you decide not to try this, the putting of zinc round the Strawberry-bed would not, we think, be very effective. The small traps known as "Break-back" traps might be used without injury to cats or dogs.

Names of plants.—*J. P. B.*—1, Choisya ternata: 2, Elæagnus pungens variety.——*A. P.*—Statice sinuata.——*A. James.*—1, Begonia President Carnot; 2, B. margaritacea; 3, B. fuchsioides.——*W. A. G.*—Phaius maculatus.——*Mrs. W. K. Gill.*—Leaf of Berberis Aquifolium and berries of Aucuba japonica.——*B. J., Smeaton.*—1, Streptosolen Jamesonii; 2, Sedum Sieboldii; 3, Ophiopogon japonicus; 4, Zebrina pendula; 5, Maranta bicolor; 6, please send in flower.

SOCIETIES.

BRITISH GARDENERS' ASSOCIATION (LONDON BRANCH).

THE monthly meeting of the above branch took place at Carr's Restaurant on Thursday, February 10, Mr. T. W. Winter presiding. In spite of inclement weather, there was a fair average attendance of over fifty members. The great event of the evening was a lantern lecture delivered by Mr. E. F. Hawes, entitled "The Value of Botany to Gardeners." Mr. Hawes first demonstrated the root system of plants by throwing upon the screen seedling plants of Wheat and Cress. The lecturer explained how the roots ramify the soil in search of the food materials found there in solution, and how these are absorbed by the root-hairs situated close behind the growing point and conducted through the tissues of the plant to the leaves by means of osmoses. The growing points are protected by a shield that acts like a plough-share by displacing the soil laterally, and so forcing a passage for the roots. The advantage of a knowledge of the structure of roots to gardeners was that it enabled them to realise more fully than they might otherwise do the necessity of providing plants with a suitable rooting medium, and of keeping this regularly supplied with moisture, as once plants are allowed to become dry, the delicate root-hairs, which are alone capable of absorbing water and food materials, would die back, and the plants thus receive a check. The stems of plants were next dealt with. Transverse sections of leaves, to illustrate the uses of the foliar organs, showed the chlorophyll granules, which give to leaves and stems their characteristic green appearance, and which carry on the important work, through the agency of the sun's light and heat, of converting the simple inorganic materials supplied by the roots into all the highly complex compounds required for the nourishment and growth of the whole plant.

The life-history of plants was well illustrated with examples of cryptogams, gymnosperms and angiosperms. Adaptation to environment was explained by reference to such examples as Gorse and Blackthorn, which lose their spiny nature when cultivated under glass, and produce spines again when placed under natural conditions.

Mr. Winter, in proposing the vote of thanks to Mr. Hawes for his valuable lecture, expressed his personal appreciation and said he felt sure that all present shared his views that Mr. Hawes had provided a most profitable and enjoyable evening.

REDHILL AND REIGATE GARDENERS' IMPROVEMENT ASSOCIATION.

WHEN the members of this association assembled at the Penrhyn Hall on the 15th inst. for their usual fortnightly meeting, they were somewhat disappointed to find that Mr. Goatley, who was to have lectured on "Early Flowering Hardy Plants and Bulbs," had failed to put in an appearance. The chairman (Mr. Bound) opened the meeting by asking the secretary to read the minutes of the last meeting. Four candidates were elected as members, and Mr. Blackwood of The Gardens, Hethersett, was awarded a first-class certificate for a fine pot of white Cyclamen and a pot of Primula obconica. The secretary then read a letter from the secretary of the Royal Horticultural Society dealing with the different methods which might be adopted by societies to encourage young men to join. The chairman then suggested that, as their lecturer had not put in an appearance, they might follow the example of some other societies and make it a question night. The idea was accepted, and Mr. Blackwood was asked to explain how he grew such fine Cyclamen, to which he very kindly responded. Mr. Cutler then gave some hints on growing Gloxinias and Mr. Brown explained his method of growing Callas. A good discussion eventually arose, which did not terminate until the chairman called "time," when all agreed that it had been a very pleasant evening. On March 1 Mr. Daisley will lecture on "Roses: From a Gardener's Point of View."

THE GARDEN.

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CONTENTS.

How to Grow Celery 109

Notes of the Week
Forthcoming events 110
Horticulture at the Japan-British Exhibition 110
Royal Agricultural Society of England 110

Correspondence
An early flowering rock plant 110
Artificial manures for Roses 111
Black Currant disease 111
A Rose show in Bournemouth .. 111
Planting young Vines 111

Gardening of the Week
For the South and South Midlands .. 111
For the North and North Midlands .. 111

Greenhouse
Crinums 112
Scented-leaved Pelargoniums 112

Flower Garden
The fascination of the Crocus 113
The Calandrinias or Rock Purslanes .. 113

Flower Garden
A border of annual flowers 114
Daffodil notes 114

Fruit Garden
Fruit notes 115

Rose Garden
Rose Mrs. David McKee 115

Gardening for Beginners
Garden work week by week.. 116
Raising plants with the aid of simple propagators 116
Single Irish Roses .. 117

The Town Garden .. 117

Kitchen Garden
Some good vegetables to sow now 118
Novel and delicious vegetables 118
Brussels Sprouts and Cauliflowers 118
New plants 118

Trees and Shrubs
A Useful Conifer .. 119

Answers to Correspondents 119
Societies 120

ILLUSTRATIONS.

Crinum purpurascens 112
Foliage of scented Pelargoniums 112
A plant for a sunny position: Calandrinia grandiflora 113
A border of annuals in the grounds of the Kew Club 114
Rose Mrs. David McKee 115
Raising plants with the aid of simple propagators 116, 117

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor of The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

HOW TO GROW CELERY.

LOOKED at from many points of view, Celery forms one of the most important of vegetables. It is generally regarded as a wholesome, appetising vegetable, either cooked or when eaten raw, and the difference between fresh, well-grown and properly blanched Celery and that which is frequently purchased is apparent. As I have pointed out on many previous occasions, there is no crop that I am acquainted with which tends to improve the soil and brings it into a more favourable condition for future crops than this; and let me point out that to obtain the best results the plants must suffer no material check from the time the young seedlings appear till the final earthing is completed, as a check from any cause, allowing, for instance, the young plants to become seriously dry even when in the seed-pans, and especially so the earlier sowings, is one of the chief causes of the plants prematurely running to seed.

Sowing.

If the seed is put in at too early a date is another cause of this, and I have found the best time for raising the young plants is from February 10 to the end of March. Mix up a compost of two parts fibrous loam, two of finely sifted leaf-soil, adding sufficient coarse silver sand to make it porous. Well-drained pots or pans, either of which are suitable, should be provided. The compost should be used in a moderately dry condition, pressing it down rather firmly. Scatter the seed evenly and thinly over the surface. The seed should be just covered with the same kind of soil very finely sifted. Give a good watering in and raise in a gentle heat of about 55°. After ten days the young plants ought to appear, when these should be raised as near the glass as possible in the same temperature, and immediately the second leaf is discernible the young seedlings should be pricked out into suitable boxes about 3 inches apart each way, using the compost slightly coarser but of the same kind of material as advised for sowing. Grow on in a greenhouse temperature, damping the plants frequently overhead, and finally harden them off in cold frames preparatory to planting. The latest sowings for late winter and early spring supplies may be pricked out into skeleton frames or even in the open in a sheltered position.

Preparing the Trenches.

This work is best undertaken during the winter or early spring months, and the site, as far as possible, should be an open and airy one. The trenches should be taken out about 15 inches deep, sufficiently wide to allow the work to be done comfortably. The bottom of the trench should be deeply forked up and the trenches filled to within 2 inches or 3 inches of the top with good half-decayed farmyard manure, or even that procured from London stable yards. This may then be left till just before to planting, when the manure should be made very firm by treading, and sufficient of the excavated soil for planting be placed thereon. Deeply planted Celery does not, in my opinion, compare so favourably as that planted nearer the surface, especially on heavy, retentive land; providing there is a sufficient channel for applying plenty of water is all that is necessary. Plenty of room should be allowed between the trenches, and when one row only is grown in each, from 4 feet to 5 feet, according to the variety, will be a fair distance. I much prefer the single row system to placing two, or even more, as is frequently done, except for the very latest plantings. Before lifting the plants, preparatory to putting them in the trenches, give a thorough soaking of water. Lift with a good ball of soil, and plant with a garden trowel from 12 inches to 15 inches apart. Make very firm, and again give them a good watering in. From the time the plants are put out till the earthing is completed apply a dusting of soot early in the morning, while the foliage is damp, weekly. If this is persisted in, it will act as a preventive to the Celery fly depositing her eggs. This pest frequently does a considerable amount of damage. As a preventive I have always found this to be reliable; but as a remedy after the foliage is once blown it is of no avail. Soot also acts as a fine stimulant for this plant.

Watering.

It should always be remembered that Celery is a moisture-loving plant, and it is almost impossible to apply too much, especially during seasons of drought. Both clear and liquid manure should be given in abundance, and during spells of very wet weather apply some patent vegetable manure known to be reliable according to directions.

Blanching.

This constitutes a very important item in relation to producing the very finest quality, and the greatest care should be exercised in performing this work. Frequently too much soil is added at the time. This is a great mistake, and should be strictly guarded against. At least five or six applications of soil should be given to a well-grown row of Celery. From six to eight weeks are necessary from the time the work is commenced before it is ready for use. It will always blanch quicker in the earlier part of the season than later. Where sufficient hands are available, three pairs should be used for the work—

one on either side to break down and add the soil, and the other to hold up the foliage closely together with the left hand and place the soil firmly round the base as the work proceeds. Where the work has to be carried out alone, each plant should be securely tied with a piece of bast, and after breaking down the soil on either side it will be necessary to put it round the plant as previously stated. Always endeavour to carry out this work when the foliage is dry, but make quite certain that the roots are thoroughly moistened before doing so. For early autumn supplies the blanching is easily accomplished by strips of brown paper being tied together securely with bast, but this is not sufficient protection during the winter months. During very severe weather the centre of the rows should be slightly protected either with Bracken, long litter or a similar material, removing this immediately the weather is favourable. EDWIN BECKETT.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 8.—Royal Horticultural Society's Spring Bulb Show at the Horticultural Hall, Vincent Square, Westminster (two days). British Gardeners' Association's Executive Council Meeting.

Royal Agricultural Society of England.—In connection with the society's show at Liverpool next June, it has been decided that the horticultural exhibition should be open from Wednesday, June 22, to Saturday, June 25. The classification will be similar to that provided at Gloucester last year, with the addition of classes for the best collection of eight kinds of vegetables and for the best collection of eight kinds of fruit. The Hon. John E. Boscawen of Tregye, Perranwell, has been appointed steward of this section, and Mr. Peter Blair of Trentham has been appointed manager. The latest date for receiving entries will be Saturday, June 4; and the schedule, entry forms and full particulars can be obtained from Mr. Thomas McRow, Secretary, Royal Agricultural Society of England, 16, Bedford Square, London, W.C.

Horticulture at the Japan-British Exhibition.—Japanese gardening is to be a feature of this exhibition, which is to be held at the White City, Shepherd's Bush. The City of Tokio is sending an exquisite miniature garden. It is designed by the renowned Taikoyen in Shiba Park, and will be no more than 12 feet long by 7 feet broad. Here are to be diminutive old trees, houses exactly modelled on the smallest scale, ponds and rocks in closest miniature. In addition to this and other horticultural attractions on small scales, a large section of the exhibition grounds is to be arranged in two large gardens after the style prevalent among the highest class of Nippon's gardeners. The first of the areas to be so treated will extend over some 100,000 square feet, while the second is to cover an almost equally large space. Large trees, bridges and houses, quite complete, and the very rocks to be used for laying out the gardens, are being sent from the Island Empire of the Far East, so as to reproduce a true and typical effect.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Climbing Niphetos.—Perhaps the following fact about our Climbing Niphetos Rose tree may be of interest to other readers of THE GARDEN. It covers the roof of a good-sized greenhouse, and the roots are mostly in the border outside. The tree has been there nine years to my knowledge, and possibly two or three before that. During 1909 it bore 1,433 blooms and buds, nearly all of which were cut for placing in flower-vases. Some of the full-blown Roses were very large. What a splendid return for a tree to give!—BERTHA STANLEY ROGERSON, *Argaty, Doune, Perthshire.*

Iris stylosa failing to flower.—It would be interesting to know if Iris stylosa has generally failed to bloom this winter. Last winter I had quantities of bloom from November to April, whenever the weather was the least mild; this winter I have not had a bloom. I have about forty clumps. I attribute it to the wet and cold summer, the plants not having had the baking they require.—C. G. O. BOND, *Churt, Surrey.*

A cure for the leaf-mining grub. In reference to a reply which appeared in THE GARDEN for February 12 relating to this pest attacking Cinerarias, Messrs. William Darlington and Sons, Hackney, London, N.E., write as follows: "We should like to point out that our 'Auto Shreds' Fumigant will exterminate the leaf-mining grub of the Marguerite fly. This remedy is well known to the trade."

Smoke nuisance from burning leaves.—When I remonstrate with the Lincoln's Inn Fields second gardener for making a perpetual smoke in the middle of our foggy London by burning leaves, which should instead, as it seems to me, be turned into leaf-manure, he tells me that while leaves of Oak, Beech and certain other trees make good leaf-manure, those of Plane and Poplar, the prevailing London trees, on the other hand, do not; that, in fact, they are "poisonous." This surprises me, and I should be glad to know what you and your readers think. I am convinced that the day-and-night per-autumnal bonfires of damp leaves, lasting three months, in Kensington Gardens and Hyde Park particularly, but also in our numerous squares and parks, have much to do with the unhealthy, funereal winter gloom of London. Could not the leaves be compressed on the spot as army forage is compressed, and so sent away into the suburbs? Would not the stuff be excellent for fowl-runs, pigsties, even for some stables? Leaves do not make very good stable bedding—*see* "Animal Management," 1908, prepared for the War Office (Wyman and Sons, Limited), page 78—but I am told that economical Welshmen use them and Bracken in stables so as to send their straw to market. Perhaps leaves might be mixed with straw. At Battersea Park they do things better than in Lincoln's Inn Fields, where space is limited, and have a magnificent stack of leaf-manure. They must "think imperially" at Battersea to have so large a stack. It is worth going to see. The late Vivian Poore, M.D., Professor of Clinical Medicine at University College, in his excellent little work on "Rural Hygiene" (Longmans, Green and Co.), page 333, third edition, insists on the absolute necessity of freedom from antiseptic mixtures of any class of manure, and it is possible that of London smoke (a precipitate of tar, and therefore akin to creosote) so much settles on the leaves as to justify the epithet "poisonous." But this is conjectural, not proven. Even were this the case, London leaves might be a useful dressing for wireworm, and might protect fowl-runs from vermin and possibly cow-stables from tuberculosis. The same authority, Dr. Poore, describes an admirable way of dry-stacking vegetable refuse in galvanised wire enclosures, which would be quite suitable to squares like Russell Square (*see* "Rural Hygiene," page 288). At Gray's Inn I notice the use of an ingenious machine for amassing the leaves. Covent Garden Market waggons returning empty would probably remove leaves, provided they were useful and compressed. This class of smoke nuisance is probably outside the scope of the admirable Coal Smoke Abatement Society founded by Sir William Richmond, and which is doing so much to help London on a basis of so little helpfulness from Londoners. The smaller squares, though numerous enough to be very prejudicial, can scarcely be expected to get automatically out of the rut, if rut there be. One would look to the Royal and County Council Parks to set the good example.—W. GREATHEED.

[Most of us know only too well the disagreeable nature of the smoke from decaying vegetable refuse, and would welcome any good means of preventing it. In places far removed from residences it is a simple matter to rot down all kinds of garden refuse; but such a thing could not be attempted in a small square or open space in a thickly populated neighbourhood. It appears as if the only option, if burning is prohibited, is to cart the material away while it is fresh. It is well known that Oak and Beech leaves form the best leaf-mould for pot plants, but the leaves of all broad-leaved trees may be safely rotted down for leaf-mould to dig into ground. Unfortunately, they are of little use until they have been stacked for at least twelve months, and in this the difficulty lies. Market-gardeners would, no doubt, be quite willing to load their market carts with rotted leaf-mould; but it is doubtful whether it would pay them to pick up fresh dry leaves, cart them home and rot them down. The leaves of Pines are unsuitable for leaf-mould, but they are not likely to worry Londoners, for conifers, as a rule, are unsuitable for towns. The comparison of tree leaves with Bracken for bedding material is not a good one, for Bracken is much easier to deal with and may be stacked and cut up like hay. Tree leaves as bedding may, therefore, be left out of the question, for they are not at all satisfactory. We can sympathise with the park attendants in their endeavour to burn the leaves, for they have not space to store them, and if left in a heap every wind blows them about. We think, however, that out of regard to the inhabitants of houses surrounding small gardens and squares, the Parks Committee might be asked to try and make arrangements to have surplus leaves removed to various centres, where they could be converted into leaf-mould.—ED.]

Viola cornuta purpurea.—Readers of THE GARDEN who saw the exhibit of this hardy plant at the Temple Show of last year will recall the effect it produced when displayed in a mass; the exhibit in question presented a solid bank of the most intense purple violet. A most successful instance of the use of this fine plant in practice came under my notice last autumn. In a large town in this locality an improvised piece of rockwork, consisting for the most part of brick-bats, occupied one side of the front area of a small residence, so as to form a narrow strip from the street entrance to the door. Little or no success had marked its treatment in former years, and last year it was decided to plant the entire area with Viola cornuta purpurea. From the point of view of the grower success was certain from the beginning, and from July till October it presented a dense carpet, entirely obliterating the unsightly brick burrs; while the intense colour of the flowers, softened by the abundant pale green leafage, formed a picture that won admiration from all passers-by. Like other forms of Viola or Tufted Pansies, this variety succeeds best in a moderate rich soil and a sunny position.—THOMAS SMITH, *Walmsgate Gardens, Louth.*

An early flowering rock plant.—Very early flowers always appeal to all lovers of the garden, and their first appearance is always looked for with eager anticipation. They are none too plentiful, especially those which are not of a bulbous character, and those we have are all the more prized on that account. A little alpine of early blooming character which is not yet much known is Synthyris reniformis, a North-West American plant, which generally comes into bloom in the writer's garden in February and lasts for a considerable time. It makes a neat tuft of little kidney-shaped, glossy, toothed leaves, from which rise the little spikes of bright blue flowers, small individually, but closely arrayed on the thickish spike. On the rock

garden it gives a welcome little bit of colour and, as it is perfectly hardy, it never fails to give one satisfaction each year. It also makes a good plant for the alpine house, but under glass the short, almost stemless spikes of the open air are somewhat elongated. I do not find this Synthyris difficult to grow, and it appears to like both sun and a fair amount of moisture. I grow it in the rock garden with plenty of stones about it to conserve the moisture, but with free drainage to prevent any excess of this. It is the best of the Synthyrises which have been introduced, and will thrive in loam, leaf-soil and sand. Increase is effected by division after flowering.—S. Arnott, *Dumfries.*

Artificial manures for Roses.—In your issue of February 12 is a reply to "Richmond, Thornton Heath," on "Artificial Manures for Roses," and in which it says "nitrate of potash is often known as kainit." This is a mistake and should be corrected. Nitrate of potash (or saltpetre) is a nitrogenous manure and kainit a potassic manure, the prices of the two differing considerably. — Thomas Crosswell.

Black Currant disease.—In The Garden lately there have been references made to the Black Currant disease and its remedy. It may not come amiss to remind amateurs at this season of the year that a careful pruning of about 2 inches off each shoot of the Black Currant will in all probability check the disease, as the infected part is usually the top bud of all, which has a swollen appearance. This I was told some years ago by a good gardener, and have never had any disease in my garden since following his advice.—Jessie Godwin-Austen.

A Rose show in Bournemouth.—I wish to correct a somewhat misleading paragraph in your paper of February 19. I am receiving a visit from the members of the Bournemouth and District Gardeners' Mutual Improvement Association on July 1, and am giving a few prizes for an exhibition of Roses to be competed for by the members and some gentlemen interested in Rose-growing, whom I shall invite; but this does not mean a Rose show for the general public. I am doing this in the hope that it may possibly start a movement for holding an annual Rose show in this district. I am very fond of Roses, and if any rosarians happen to be in this neighbourhood during the Rose season, and will let me know, I shall be glad to see them to show what can be done in the way of Rose-growing under and climbing up Pine trees.—Walter C. Clark.

Planting young Vines.—I must take exception to one or two remarks made by your correspondent "A. A." in his notes on the above subject in your issue of February 12. He says the present is a good time to plant young, dormant Vines. Now, it is generally acknowledged that the best time to plant one year old Vines is just before they break naturally into growth, which is about the end of March or the beginning of April. The borders will then be thoroughly warmed by the influence of the sun, which will encourage the roots more readily into growth, and also at that time of the year a suitable temperature can be maintained without the aid of fire-heat. It is known that newly planted Vines are impatient of being hurried into growth by artificial means. It is equally injurious for the roots of a Vine which have been recently disturbed to remain in a cold medium for an indefinite period. He also advises that the Vine should be cut back to a prominent bud after planting. This is also contrary to good practice, and will undoubtedly result in the loss of much of the Vine's energy through bleeding. This cutting back should have been done at the end of the year, and the surface of the cut burnt and painted with styptic. I consider 4 feet apart too much for Black Hamburgh—3 feet 6 inches is ample; but I would advise planting the Vines 7 feet apart and run up two rods from each Vine.—E. H., *Frogmore.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

WITH the coming of the month of March there is much to be done in the way of sowing seeds and planting, and every opportunity has to be taken advantage of. Plant out in their permanent quarters Sweet Williams, Canterbury Bells, Foxgloves, Pansies and Antirrhinums that were raised from seeds last season and which have remained in nursery beds through the winter.

Foxgloves.—These can be used to create a very good effect by planting among low-growing shrubs, so that the spikes show above the tops. Where possible, good-sized groups of about two or three dozen plants should be used to obtain the full beauty.

Sweet Williams.—Much improvement has taken place in the strains of this very old-fashioned flower during the last few years. They are excellent subjects for beds or herbaceous borders.

Antirrhinums. — Of these the intermediate varieties are, perhaps, the best for various reasons. In the first place, they do not require staking as do the taller ones, and they give a better effect than the dwarfs. Planted in masses some of the varieties are splendid; Orange King and Carmine Pink are two of the best. Excellent whites, yellows, pinks and crimsons may also be had.

Kitchen Garden.

Peas.—Make a good sowing of Early Giant, Daisy or Gradus in well-trenched ground. A good plan to adopt with Peas is to sow once a fortnight in sufficient quantities to keep up a succession. Digging trenches and filling them up with manure and soil is strongly advocated; but, in any case, well-manured and deeply-worked ground is quite essential to obtain good crops of Peas.

Potatoes.—Plant for the summer supply Early Puritan, Duke of York, Windsor Castle and Ringleader.

Carrots.—Sow Early Nantes or Early Short Horn on a warm border, also Turnips Early Milan or Early Snowball. These should be sown in drills 12 inches apart. The Turnips should be protected with fish-netting to prevent the birds from clearing them off.

Prepare beds for and sow Brussels Sprouts, Cauliflowers, Lettuces, Leeks, Summer Cabbages and Walcheren Broccoli to follow those sown in frames. To keep up a succession of Lettuces a sowing must be made every fortnight. Seedlings in frames will require plenty of air to keep the plants sturdy.

Sow Radishes every ten days; also sow in boxes under glass Thyme, Marjoram and Basil.

Plants Under Glass

Seeds to Sow.—Asters, Stocks, Phlox Drummondii, Zinnias, French and African Marigolds, Ionopsidium acaule, Dimorphotheca aurantiaca, annual Gaillardias, Nasturtiums, Nicotiana, Perillas, Petunias, Celosias and Marguerite Carnations. The above should all be sown in boxes and placed in a gentle heat till through the soil, when they can be removed to a cold frame.

Dahlias.—Tubers of these that were started early in February will now have made growths ready for propagation. Secure the shoots when about 3 inches or 4 inches long, cutting them from the stock with a piece of heel attached. Insert the cuttings in pots filled with sandy soil, and place them in a Cucumber or propagating house, where they will root quickly.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Sweet Peas. — Circumstances compel many growers, both amateur and professional, to raise the bulk of their Sweet Peas out of doors, and if these get fair treatment a very good return may be looked for, although it will hardly be possible to pick many exhibition bunches by growing them in this way. Still, in a good season I have seen some wonderfully fine flowers gathered from plants the seeds of which were sown outdoors during March. As with plants raised in pots or boxes, the better the ground is prepared the better will be the return. We will presume that the site for the Sweet Peas has been trenched at least 2 feet deep in winter, and that some good manure and fresh soil have been added. On the first opportunity now, when the soil is in a good working condition, well fork the soil in the early part of the day, giving a good dusting of bone-meal and soot before doing so. Later in the day draw drills about 3 inches deep, and if troubled with the small black slug that burrows in the soil, scatter half an inch of sifted coal-ashes in the bottom on which to sow the seed. Sow thinly, but not only one seed to each foot, or there is every chance of a serious failure, and then add another half an inch of ashes. I have found this a great help against these slugs, and it is also beneficial in wet soil, as it helps to keep moisture from lying around the seeds should a wet spell set in. If the row or clump is too thick, it can easily be thinned after the plants are 3 inches high.

Kitchen Garden.

Peas.—I fear that the first sowing outside is to be very late this season, at least on heavy land. Those with dry soil would probably get in a first lot early in February, and if so, another sowing should now be put in. I find it a good plan to sow a row of Pilot, and another of Senator about this time. Gradus refuses to succeed here, but those who find it a success should use it instead of Senator. From now onwards the finer sorts may be risked, as, unless a very wet spell comes, the seeds ought to germinate all right.

Other Vegetable Seeds.—The main crops of all, or nearly all, the Brassica family should now be got in at the very earliest opportunity. Select a sunny border and sow in shallow drills 12 inches apart. Sow thinly, and, to protect from the ravages of birds, slightly moisten before sowing and roll in red lead. This is a far better and easier plan than netting the seed-bed. It is rather early to sow Broccoli and Asparagus Kale.

Leeks.—Sow the main crop of these in nice rich soil. The true Musselburgh is probably the best variety for the general crop. It is very hardy, blanches well and is of a nice mild flavour.

Onions.—Although the best results are only obtained by sowing this crop in boxes during January or February and planting out in May, still, very useful crops may often be had from March sowings out of doors. Very rich, well-tilled soil is essential. Sow in shallow drills 1 foot apart, and make the ground very firm by treading before the drills are drawn. Fill in with the feet and tread all over evenly again, finishing off by lightly raking the surface. Some of the older varieties, like Deptford, Danvers' Yellow and Nuneham Park, are best suited to this method of culture.

Plants Under Glass.

Half-hardy Annuals.—Sow now Nemesias, Asters, Calendula (this is best treated as a half-hardy annuals), Phlox Drummondii, German Scabious, Zinnias and Salpiglossis. Note that Nemesia seeds germinate best in a very moderate warmth.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE GREENHOUSE.

CRINUMS.

AT the present day Crinums cannot be regarded as popular plants, yet, strange to say, three of them have within the last few years been given awards by the Royal Horticultural Society. The first, Crinum Mearsii, quite a miniature species from Burmah, with pure white, starry flowers, received a first-class certificate at the Holland Park Show of 1907. Next, on the same day, an award of merit was bestowed on Crinum H. J. Elwes, a hybrid between Crinum Moorei and C. americanum. The flowers of this are of a pleasing shade of rich rosy pink, and when shown they were much admired.

The third to mention is the species herewith figured, namely, Crinum purpurascens, which received an award of merit when shown by Sir Trevor Lawrence, Bart., at the meeting of the Royal Horticultural Society on February 8. It is a native of Tropical Africa, being found in the regions of Ferdinand Po and Old Calabar, from whence, according to the "Dictionary of Gardening," it was introduced as long ago as 1826. The general appearance of the flower-umbel is shown in the accompanying illustration. In colour the flowers are whitish, with a staining of red, and the long stamens which form such a noticeable feature of the flower are also red. It flowers regularly in the gardens at Burford, Sir Trevor Lawrence's residence, being grown in the stove during the winter and in a greenhouse in the summer.

CRINUM PURPURASCENS. (*One-third natural size.*)

Other warm-house species of Crinum (of which, by the way, very few sorts can be obtained from nurseries) well worthy of mention are Crinum augustum, one of the most noble of all, which from a huge, club-like bulb pushes up a stout flower-stem, terminated by a large umbel of twenty to thirty flowers, in colour white heavily tinged with red and deliciously fragrant; C. amabile, a smaller grower from Sumatra, with rosy red flowers; C. giganteum, from Tropical Africa, with pure white blossoms; C. Kirkii, a native of Zanzibar, whose flowers are white with a broad reddish stripe down the centre of the segments; and C. zeylanicum, whose flowers, borne in a large umbel, are more or less of a rosy tint, banded with red down the back of the segments. C. Moorei, a native of Natal stands out almost by itself, not only for its own intrinsic merit, but also for the fact that it has, in conjunction with the hardy C. longifolium, or capense as it is often called, given us C. Powellii and its white-flowered variety alba. By many C. Powellii is regarded as the finest of all Crinums, for it is nearly, if not quite, as hardy and the flowers are far more showy than those of C. longifolium, while it is hardier than its other parent, C Moorei. In order to see C. Powellii at its best it needs a sheltered position and the planting to be thoroughly done. The stout, club-like bulbs, even if they are 2 feet long, should be buried at such a depth that the upper part is level with the soil, and so treated, even if exposed to frost, a few leaves put over the dormant crowns in winter will make all safe. These Crinums need a strong rooting medium, such as turfy loam and well-decayed manure. An ideal spot for C. Powellii and allied kinds is in the sheltered bays around the Palm House at Kew, where they form a delightful feature every summer. Though more tender than C. Powellii, the species previously alluded to, C. Moorei, may with attention be wintered out of doors. It is also excellent for the greenhouse or conservatory, where it will flower towards the latter part of the summer. Being quite dormant in winter, C. Moorei may at that season be kept anywhere safe from frost. Lovers of Crinums, and indeed of many other uncommon and beautiful plants, deplore the recent death of the late Sir Charles W. Strickland, Bart., in whose garden at Hildenly, Yorks, so many charming but neglected plants found a congenial home and were tended by him with a loving care. H. P.

Clorinda. *Quercifolium.* *Pretty Polly.*

FOLIAGE OF SCENTED PELARGONIUMS.

SCENTED-LEAVED PELARGONIUMS

WHILE form and colour of the flower count for much in estimating the qualities of a plant, fragrance, either of flower or leaf, is also a most valuable asset. In confirmation of this, one has only to look at many of the good old-fashioned flowers, which are such universal favourites, even though not particularly showy. Were it not for the fragrance of their foliage, the scented-leaved Pelargoniums would doubtless long since have been discarded, as their flowers, though frequently pretty, are not showy, as is the case with many of the popular varieties of the present day. Memories of the scented-leaved Pelargoniums carry me back to a delightful old-fashioned garden, from which every visitor came away with a posy, simply an informal arrangement of a few flowers and leaves, pleasing alike to sight and smell. The flowers, and to a certain extent the leaves, varied according to the season, but, winter or summer, one was almost sure of a few sprays of Myrtle, Rosemary and a selection of these Pelargoniums. When attended to with a change of water and an occasional cutting away of a tiny piece from the bottom of the stem, cut sprays would last for some time.

Many of the varieties of this section will grow vigorously if planted out during the summer months, but, as a set-off, the large, succulent leaves developed under such conditions do not, when cut, retain their freshness for anything approaching the same time as those of a firmer and more woody character which have been grown altogether in pots. A notable feature of this group of Pelargoniums is the way in which the fragrance of the leaves mimics that of other and totally different plants. In none is this character more pronounced than in the case of Pelargonium tomentosum, whose large, hairy, soft green leaves have the identical smell of Peppermint. The Citron-scented also furnishes another good illustration.

Cultivation.

In common with Pelargoniums in general, these members of the scented-leaved section strike root readily from cuttings and grow away freely in an ordinary greenhouse. Apart from aphides or green fly they are rarely troubled by insect pests. As a class these scented-leaved Pelargoniums are well suited for forming specimen plants; but where space does not exist for this mode of treatment, effective little bushes may be grown in pots from 5 inches to 10 inches in diameter, according to the habit or vigour of the different varieties. Ordinary potting soil in which loam predominates will suit the requirements of these Pelargoniums. Given fibrous loam of moderate consistency, a suitable compost may be formed of two parts of this loam to one part of well-decayed leaf-mould and a liberal sprinkling of sand. Like South African plants in general, these Pelargoniums need only for their safe keeping during the winter a structure from which frost is just excluded. If, however, it can be managed, the best temperature for them at that season is 40° to 50°.

Selection of Varieties.

This is rendered a somewhat more difficult matter owing to the fact that the nomenclature is much confused, and whether some of the names in common use are the correct ones is at least an open question. However, the following are all good: Clorinda (one of the newest of this section, with large, rosy cerise flowers), denticulatum, Fair Ellen, ficifolium odoratum, Lady Mary, Lady Plymouth (a pretty variegated variety of the Oak-leaved class), Little Gem, Pretty Polly, Prince of Orange, Pheasant's Foot, quercifolium, Radula and tomentosum. Pelargonium Unique, a rambling kind with fragrant leaves and showy flowers, was at one time popular for growing into specimen plants. Different, yet desirable, forms of it are Scarlet Unique, scarlet; Rollisson's Unique, purple; and Mrs. Kingsbury, violet crimson.

H. P.

THE FLOWER GARDEN.

THE FASCINATION OF THE CROCUS.

I HAVE gladly acceded to the Editor's request and have promised to discourse on the Crocus, my favourite genus of plants, for a few weeks. I feel it is right to commence with an explanation of the great hold this small family of little flowers has upon me. I do not wish to apologise for my choice, but rather to enumerate some of their irresistible charms, with a hope that it may lead others to derive as much pleasure and interest from them as I do.

First, then, their flowering season stretches from August to mid-April, bridging over the very dullest months of the year. It is true that at present the rich orange C. Scharojani is found in but few gardens in August and early September; but I saw vigorous seedlings from home-saved seed of this species in Mr. van Tubergen's gardens at Haarlem last spring. I have great faith in the superior constitutions of garden-raised seedlings and, therefore, great hopes of yet seeing many a border with a northern aspect glowing with this species, just at the very season when such a border is often rather colourless.

From mid-September to the latter part of November comes the great rush of autumnal Croci, of lilac, purple and white, and the nearest approach to a real blue in C. speciosus. Even in dark December hyemalis and lævigatus in cosy nooks of a rock garden will cheer us with a continuous supply of blooms, and vitellinus is, in most seasons, punctual in appearing in the closing days of the year and lasting until chrysanthus, Imperati and Sieberi appear in the early days of the new one to herald the arrival of the other vernal species. Has any other hardy genus of plants so good a record for the dull season of gardening?

The next claim I press is the extensive range of colouring. Green alone is wanting, though I have a form of Clusii in which the throat and tube are distinctly greenish. There is no true blue Crocus, I believe, but many of the biflorus forms have small patches of blue at the base of their inner segments that require Prussian or Antwerp blue to produce the tint in painting them. The buds of some forms of the wild aureus are of so rich an orange that they require deep cadmium or orange vermilion for the deeper parts, and I have a very lovely one, which I believe will prove a distinct species or wild hybrid, that is very nearly scarlet in the bud stage. Crimson appears in the featherings of some forms of lævigatus, chrysanthus, Imperati and aërius.

Pure white species and albino forms are well represented, and intermediate shades from cream, sulphur and yellow to deep orange in one scale of colour, and rosy lilac to deep purple in another, do not exhaust their possibilities, for featherings and suffusions on the outer segments give a wondrous range of contrasts. We have Imperati with the outer surface of the outer segments buff, variously feathered with crimson purple, while the inner segments are clear lilac and form one of the most delightful contrasts in colour I know of. A form of Balansæ has rich mahogany outside and orange yellow inside, and in a half-expanded bloom the effect is very striking, even more so than in some of the brown and yellow Irises of the variegata section. Some of my latest seedlings of chrysanthus and Korolkowi are repeating this scheme of coloration.

Fragrance I also claim for most Croci—a delicate scent hard to describe, with a distinct suggestion of the Primrose in it, but with something a little heavier added, much the same as we find in Iris unguicularis. It strikes me as a decidedly *spring* scent, in spite of its being so well developed in longiflorus and some other autumnal species. It seems to proceed from the anthers and, I expect, from the pollen grains. Imperati possesses it in a very marked degree. Some species are almost scentless, but one, known as graveolens, is exceedingly malodorous. One flower open in a frame scents the whole structure, and, even when the flowers have been dried for some years in the herbarium, they, and any paper that has been near them, still give out this unpleasant scent. It corresponds in the vegetable kingdom with the egg of the fulmar petrel in the animal; both retain for so long the unpleasant odour that reminds one of blackbeetles.

Compared with other bulbs, Croci cannot be called expensive. A few of the very rarest may sell at several shillings each, but most of those in cultivation by nurserymen can be procured at a few shillings a hundred and a fairly complete collection easily acquired. With the exception of a few winter-flowering ones, they may be called absolutely hardy, and will thrive in any garden where they can be given a sunny aspect and freedom from stagnant moisture.

Have I not made out five good points in their favour and justified my predilection for the Crocus?

Waltham Cross. E. Augustus Bowles.

A PLANT FOR A SUNNY POSITION: CALANDRINIA GRANDIFLORA.

THE CALANDRINIAS OR ROCK PURSLANES.

The Calandrinias are largely native of Chili and California, and for garden decoration in this country are much the best if regarded from the point of view of rather tender annuals. Occasionally, however, the plants assume the more perennial or sometimes shrubby character seen in their native habitat, but the few that do this are by no means certain in their behaviour; hence

the suggestion just made. A cultural point of importance, seeing the plants belong to the Natural Order Portulaceæ, is that the flowers for the most part open during sunshine; hence the plants should occupy the warmest and sunniest position the garden affords.

This much, indeed, is almost suggested by the native home of the plants, and the fact of their inhabiting much warmer climes than our own should not be lost sight of. Not infrequently, too, do these plants make quite effective pictures of colour on sloping banks of hot, sandy soils, or again, on the sunnier parts of the rockery where opportunity affords. In Southern England and around the coast the seeds may be sown in early April; but in more inland districts the seeds would be best sown late in that month or early in May. It is quite worth while to sow seeds of some of the species in pots, transfer these bodily to the border in May and secure a much earlier display. In all outdoor operations the soil should be of a light character and well drained.

C. grandiflora, of which an illustration is given, grows about 18 inches high and produces quantities of rose-coloured blossoms from a tuft of fleshy, entire leaves. It is a most desirable plant for the warmest positions of the garden. C. speciosa grows rather less than 1 foot high, has ruby-coloured flowers, and will also enjoy treatment similar to the above. C. oppositifolia, with more succulent leaves than the first-named, has whitish or blush white flowers; this plant is not often seen in British gardens. All the above are, for all practical purposes, tender annuals. C. umbellata is of a prostrate or trailing habit of growth, and bears quantities of brilliant crimson, magenta-shaded flowers. This species, which is from Peru, while unmistakably of perennial duration, is easily raised from seeds, and usually flowers well the first season from the sowing. E. H. Jenkins.

A BORDER OF ANNUALS IN THE GROUNDS OF THE KEW CLUB.

A BORDER OF ANNUAL FLOWERS.

When well grown annual flowers will give many surprises, both in the borders and beds. Very simple are the rules which should govern the management of these useful and easily raised plants. In the first place, the seed should be sown on a carefully prepared surface of soil and covered slightly. A great point with annuals is to take care not to allow the seedlings to become overcrowded. Thin them as soon as they are large enough to handle. A single plant will produce a wonderful display of flowers if allowed plenty of space in which to develop. Many sorts are capable of filling a yard square of space from each seed and of producing a continuous display of flowers until cut off by frosts, whereas if the plants are crowded the flowers are insignificant and wanting in colour, also the flowering period is greatly curtailed. A large number of annuals are perfectly hardy, and these may all be sown in the places in which they are to flower; but the real capability of annuals is more easily realised when it is possible to raise them under glass.

The seed should be sown in pans or pots in fine rich soil and placed in a gentle heat; if not in a greenhouse, then on a hot-bed. Press the soil firmly and sow the seed thinly, distributing it as evenly as possible, and cover very lightly with a sprinkling of light soil. When strong enough prick off the seedlings into pots or boxes, and in due course transfer them to a cold frame or greenhouse until the time of planting out arrives.

This will be governed greatly by the season, but the operation should never be hurried if the weather is unfavourable. It must not, however, be thought that frame-raised plants are a necessity; but the full beauty of annuals is more evident when the seedlings are raised under glass. Complaints are heard as to poor displays from border sowings, but a different practice may with advantage be adopted by sowing in boxes or pots the beautiful strains now available; for instance, a single specimen of Clarkia Sutton's Salmon will in good soil fill a space of 2 feet. To sow the smaller Sunflowers in the border is to court failure. Grown as individuals such pretty varieties as Stella and Single Dwarf Primrose will form charming groups. Then we have Mignonettes Giant White, Red and Machet, and if given space each will cover a square foot or more. Larkspur Rosy Scarlet Stock-flowered produces a fine effect, and is a colour much needed in beds and borders.

Due regard must be paid to sowing the seed thinly, early thinning of the seedlings and giving support if the species require it. Cover the small seeds lightly and the larger seeds more deeply. The results will afford pleasure to all concerned. No plants are better worth a little trouble, and the range of colours found among them is the most beautiful in the world of flowers. Thomas Berridge.

DAFFODIL NOTES.

The Value of Early Potting for Forcing. I do not think those who know how to do things realise that the most elementary facts are often ignored by those who do not. These latter wonder why the results that they obtain are so different from those of their friends. They argue thus: "I bought the bulbs from so-and-so, just as he told me—I used a compost made as much like his as is possible—I plunged them and kept them in the dark until they made good roots—I was careful to gradually accustom them to the light, and I am sure I was most particular to give them an intermediate temperature before I placed them in the warmest house. What have I done wrong? Mine have not the size, substance or length of stem that he gets." What has this imaginary gardener omitted from his otherwise excellent list of cultural requirements? He has never mentioned that the potting must be done as early in the season as possible. Probably his friend thought he must know it. It is such an elementary necessity that he might naturally take it for granted that his friend knew it. Whatever may be the case with the professional gardener, I feel confident the amateur in many cases does not appreciate how everything depends on this prime factor. Bulbs are bought. The dealer delivers them. The employer receives them, and *sometimes* forgets them. Then, three or four weeks after, he takes them out to his man and says, "I am afraid it is a little late for you to have them, but do what you can." Poor man! What can he do? Nothing! absolutely nothing, for he knows that a late start spells second-class results. I have known all this myself for years, but it is only when a case in point comes under personal notice that its importance is realised. Two weeks ago I had some glorious pots of Golden Spur; they were healthy, vigorous, tall and strong, and looked as if they enjoyed life. At the time of writing (February 18) I have three or four pans of the self-same bulbs, but what a difference! The stems and foliage are not nearly so tall and strong, the flowers are much smaller and of poorer substance, and the plants look just as we feel when we are "below par." Now the good bulbs were planted on September 15, while the others were not done till the very end of October. This has made the whole difference. I have made rather more of this than I might have done, of course; but I have only done so because it is such a vital element of success. Daffodils in one respect are a little like human beings:

> Early to bed and early to rise
> Makes a man healthy, wealthy and wise.

So if you want a nice, strong, healthy flower with good stiff foliage, "put it to bed early."

Mr. Charles Dawson.—I had a notice the other day from Mr. Dawson saying that he had disposed of his Daffodil business to Mr. A. M. Wilson, who left his northern home in Lincolnshire eighteen months ago to reside in Somersetshire, because he considered the climate more suitable.

The Barr Memorial.—The committee will shortly be sending round a printed circular to all lovers of the Daffodil to contribute to the Barr Memorial. I hope readers of these notes will not turn a deaf ear to this appeal. It will be nice to have a medal with Peter Barr's face and cap to give from time to time to those—his followers—whom we wish to honour. It will be nice, too, to give a supporting hand to those dead gardeners' children whom he in his lifetime took such pains to help. Joseph Jacob.

A BEAUTIFUL IRIS: I. HISTRIOIDES.

This is one of the most charming of the spring-flowering Irises, and, generally speaking, proves of easy culture. The flowers are large, the falls mottled with white and rich lilac both on the claw and on the broad, rounded blade. It is a native of Eastern Anatolia, and flowers in early March. It should have the same treatment as Iris reticulata. T.

THE FRUIT GARDEN.

FRUIT NOTES.

GRAFTING.—It is commonly assumed that the whole of the grafting of fruit trees that is done in this country is left to the professional grower, whether he be producing trees for sale or for planting in some part of his employer's garden, but this is by no means the real fact of the case. There are scores and hundreds of amateurs who aspire to become expert grafters, and they spare no efforts to that end. Towards the end of the month and early in April the scions will have to be inserted, and in those instances where old stocks have to be operated upon, the preparatory operations ought to be put in hand forthwith. It is most desirable that these shall be headed back some weeks in advance of working, and the main branches should now be removed with a saw, and afterwards all wounds must be cut over until they are smooth with a very sharp knife or a chisel. This done, the worker has simply to wait for the time when it is known by the neighbouring trees that the sap is rising, and then at once insert the grafts. For old Apple stumps there are few varieties equal, and none superior, to Bramley's Seedling; while for Pears one cannot go far astray in deciding upon Pitmaston Duchess. Both of these are vigorous growers, and will thrive grandly in the majority of instances. In the case of young stocks it is not essential that they shall be headed back so far in advance, but it is imperative that all the requisites—scions, tying material and wax—shall be prepared in advance for immediate use when they are wanted. To leave everything until the last moment is an error in this as in other details of gardening, for which the transgressor has to pay.

PROTECTING BLOSSOMS.—Peaches, Nectarines and Apricots demand protection for their blossoms in practically every garden in the country where they are grown, and as it will have to be called into use before very long, the earlier all arrangements are completed the better. It must be borne in mind that while protection is necessary, it is equally imperative that the light shall not be excluded from the trees; therefore whatever is used must afford protection and still not obstruct light. The most serviceable material for the purpose is a double thickness of tanned netting. It ought to be attached to long rods or poles in such a manner that it can be quickly put on and taken off, and in no circumstances whatever must it be so set that it will touch the blooms, otherwise its value will be rendered practically nil.

MULCHING STRAWBERRY PLANTATIONS.—There is abundance of time in which to carry out this important task, but it is desirable that it shall be pushed forward as promptly as can be made convenient, for the simple reason that in the course of another two or three weeks the work in the garden will become so urgently pressing that there is invariably a possibility that something will be left undone. Therefore get long, strawy litter containing plenty of manure and spread it between the rows, packing it closely up to the lines; but exercise care that the crowns themselves are not enveloped. The rains will gradually wash the food virtues of the dressing down into the soil, and at the same time clean the straw. It must be particularly noted that short material is not suitable for the particular purpose now under consideration, since while it will yield the food it will not leave the required clean bed.

YOUNG STRAWBERRIES.—When Strawberries reach a grower late in the autumn, it is the invariable and excellent practice to plant them closely together in nursery beds, there to remain for the winter; but it is essential to the best eventual results that they should be moved during the present month. The site chosen for them must be deeply dug and generously enriched with sweet manure, and immediately it has settled down the planting ought to be done. It is necessary that the roots shall be fully spread out and that the soil shall be made firm about them. It is more than likely that many of the plants will flower, but the blooms should be promptly picked off, as it is not desirable that the plants shall be allowed to crop the first season after being planted so late; in the following year they will render an excellent account of themselves. FRUIT-GROWER.

ROSE MRS. DAVID MCKEE.

THE ROSE GARDEN.

ROSE MRS. DAVID McKEE.

As a Rose for the garden this possesses distinctive merits. By many it is preferred to varieties of the Kaiserin Augusta Victoria type for outdoor culture, for its growth is bushy and the flowers are a soft creamy yellow, while their shape is perfect. It blooms so freely and continuously that it should be included in every collection of bedding or massing Roses. Exhibitors, too, find it very useful, although during last season it was rather low down in the Analysis made by Mr. Mawley. There are not many Roses among exhibition kinds of this particular creamy yellow colour, except in the true Teas, so that exhibitors are very glad of Mrs. David McKee for a corner flower or to enhance the richness of colour of a Hugh Dickson. For pots it is very useful, surpassed, perhaps, by Duchess of Portland and Kaiserin Augusta Victoria, but yet in its own way perfectly distinct.

A group of Roses of the colour of Mrs. David McKee would make a fine effect in the garden, and in this group I would place all the kinds named above and also Mme. Hoste, Mrs. Peter Blair, Mme. Jenny Gillemot, Mme. Pauline Bersez, Perle von Godesberg, Marie van Houtte, Mrs. S. Treseder, Sulphurea and the new variety Cynthia.

The last-mentioned is a lemon yellow variety and one likely to make a reputation for itself, seeing that it is a hybridised seedling of that popular Rose Frau Karl Druschki. Some growers find that Mrs. David McKee is wanting in vigour. I have never found it to be the case; but if they have not succeeded with it as a bush, I would advise them to bud it upon half-standard Briars. Many Hybrid Teas wanting somewhat in vigour succeed well as half-standards. Mrs. David McKee was introduced by Messrs. A. Dickson and Sons in 1904 and received the gold medal of the National Rose Society. The photograph from which the illustration was prepared was taken by Mr. T. Stevenson, Woburn Place Gardens, Addelstone, who is as clever a photographer as he is a gardener. P.

GARDENING FOR BEGINNERS.

RAISING PLANTS WITH THE AID OF SIMPLE PROPAGATORS.

GARDEN WORK WEEK BY WEEK.

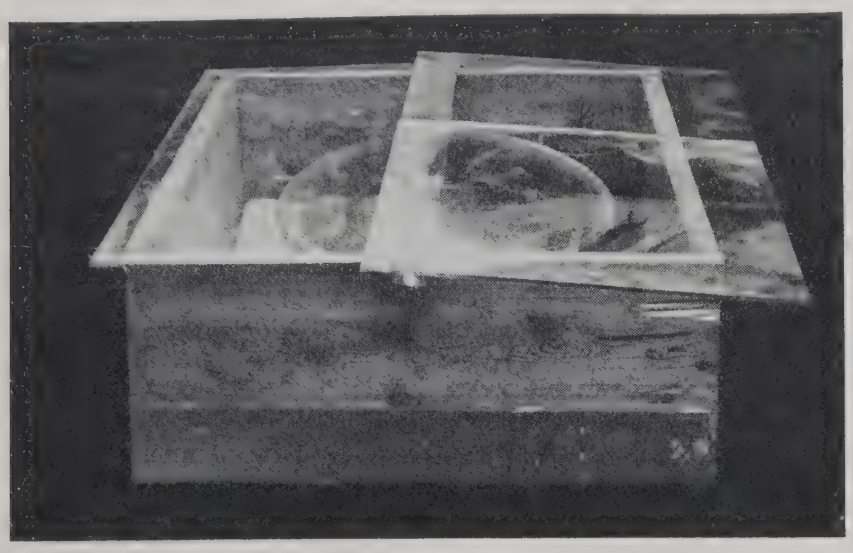
KITCHEN GARDEN.—As soon as the soil is in suitable condition, Carrots and wrinkled Peas for earliest crops may be sown outdoors. Both should be sown in rows. For the Carrots make shallow, flat-bottomed drills 10 inches apart and scatter the seeds thinly along them, covering with about an inch of soil. Of course, previous to sowing, the bed will have been raked down level and the surface thereby rendered fine. After the seeds are covered, and as soon as the soil is dry enough not to pick up on the boots, the bed should be trodden over firmly, as Carrots delight in a firm rooting medium. For this early crop select one of the Short Horn or stump-rooted varieties, such as Early Gem. Early wrinkled Peas are mostly dwarf in habit, seldom growing more than 15 inches to 18 inches in height. Drills for such varieties should be from 1 foot to 15 inches apart, and should be flat-bottomed and not more than an inch deep. Sow the seeds rather closer together than is advisable for later crops. If the soil is naturally of a clayey nature, make up a sandy mixture for covering the seeds, and take care not to cover with more than an inch of soil. Later varieties, to be sown in a few weeks' time, may with advantage be sown 2 inches deep. The present is a good time to make the main sowing of Onions outdoors, and these may be treated precisely as advised for Carrots, except that the rows will be better 1 foot apart. When sown early the plants frequently escape attack by the Onion fly. Varieties that did well with me sown in this way last year were Sutton's Improved Reading and Webb's Improved Banbury. At the time of writing bulbs of both are keeping splendidly, notwithstanding the fact that last autumn was a bad one for ripening.

Flower Garden.—Where the Sweet Pea seeds have not yet been sown, no time should be lost in getting the work done as advised last week. Of course, there is nothing to be gained by sowing while the soil is in a sodden or frozen condition, but advantage must be taken of the first opportunity when it is dry enough. Any dividing and replanting of herbaceous plants that are not yet done must be completed without delay, as most kinds are now growing freely, and any serious disturbance after this week is likely to have a bad effect on the plants. See that all are properly labelled and the beds and borders made tidy ready for the spring. Bulbous plants in beds are now growing rapidly, and some of the earliest Daffodils are showing their flowers. Much good will be done by carefully running a Dutch hoe between the plants when the surface of the beds is dry, as this will prevent the soil becoming caked and cracked. Care must, however, be taken that soil does not get into the hearts of such plants as Tulips, or much irreparable mischief will be done.

The Lawn.—The grass is now beginning to grow at a good pace, and it will benefit considerably if the whole is given a vigorous sweeping with a stiff besom or lawn broom. This will remove any loose rubbish and also scatter worm-casts that may be present. After this sweeping allow it to dry for an hour or two, and then give a thorough rolling with a heavy roller, always, of course, providing the soil is not sodden or frozen hard. Where the grass is at all poor, it will derive much benefit from a dressing of soot or nitrate of soda at this season. Soot may be sown at the rate of 1½ pecks to each square rod, or three-quarters of a pound of finely crushed nitrate of soda may be given to the same area. Both of these substances produce grass of a deep green colour. Where worms are present I prefer the soot, as this is distasteful to them. Both soot and nitrate of soda will be quickly washed into the soil by rain. In most localities it is full early to mow the grass yet, but the mowing-machine should be overhauled in readiness, as the grass will certainly need cutting in the course of a week or two.

Fruit Garden.—In these days, when scientifically prepared fruit trees and bushes can be purchased so cheaply, it is scarcely worth the amateur's while to bother with grafting his own trees. There will, however, be some circumstances under which it is desirable to do the work at home, and the present is a good time to make a start. About this time last year the subject was fully described and illustrated in THE GARDEN, and those who desire to do this work should consult these back numbers. It is well-nigh impossible to clearly describe the operation to a beginner without the aid of illustrations. There are, however, a few cardinal points that must be observed. Thus, there must be a close relationship between stock and scion; the slimy tissue which lies immediately beneath the bark of the stock and scion must be so placed that the cut surface of it in one comes into close contact with that of the other; the two must be bound firmly in position; and the junction must be covered, after tying, with a mixture of clay and cow-manure or grafting-wax, which is specially prepared for the purpose. The best thing for a beginner to do, if possible, is to obtain a practical lesson or two from someone who is used to and thoroughly understands the work. I often think how much could be avoided if practical lessons were taken in such matters as these. It is difficult even with illustrations to convey the real lessons.

A. A.



1.—A SIMPLE PROPAGATOR, MADE BY UTILISING A BOX 6 INCHES DEEP AND OF ANY CONVENIENT SIZE. A LATH NAILED ACROSS THE TOP IN THE CENTRE SUPPORTS SHEETS OF GLASS, WHICH PROVIDE AN EVEN TEMPERATURE AND HUMIDITY.

RAISING PLANTS WITH THE AID OF SIMPLE PROPAGATORS.

As soon as the days begin to appreciably lengthen, the gardening enthusiast feels he must lose no time in commencing operations, dealing first of all, of course, with subjects with which he is familiar or that have come within his own personal experience in the years that are past. The lengthening day reminds us that the work of propagation should proceed apace, if we are to have our plants and seedlings ready for placing in their flowering quarters when the trying climatic conditions of the United Kindom are experiences of the past.

Expensive propagators are not absolutely necessary, although, of course, those who care to purchase them, and who also know how to control them, may accomplish a great deal in a few weeks. The writer, however, desires to help those whose knowledge of propagation is very elementary, and who prefer to raise their own plants. As I have suggested, the amateur gardener with a heated glass structure has a great advantage over those having a greenhouse without artificial heat; the former may erect a small propagating-frame on the side benches of his heated glass structure and raise plants at this season with comparative ease, or he may, if he chooses to do so, use any of the simple methods of propagation which are illustrated and explained in this article. The fact that the house is heated with hot-water pipes ensures an even temperature of a genial kind, and in these circumstances the rooting process is effected in a comparatively short period. Light, however, is of considerable importance in every case, and when raising seedlings it is of the highest importance that this fact should be fully recognised; it is not too much to say that failure or success is largely dependent on the proper recognition of the need of a good light.

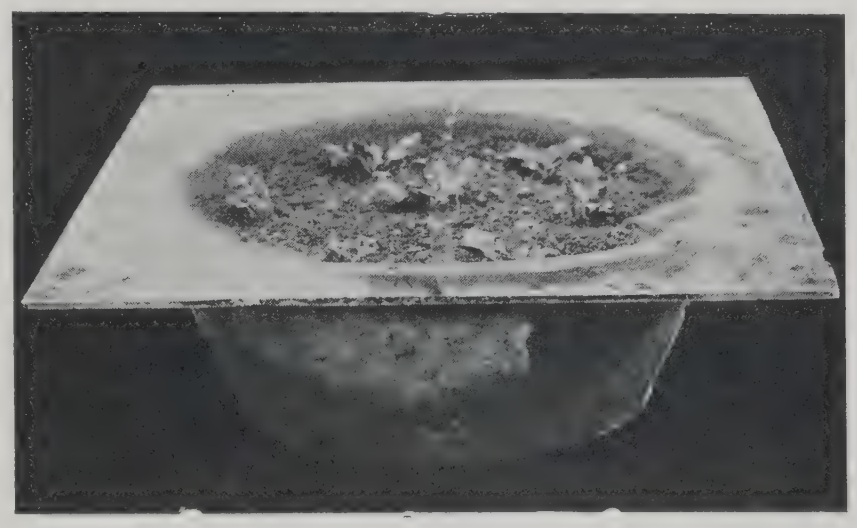
An excellent little propagating-frame, of a rough description, may be made out of any ordinary box of a suitable size to meet the requirements of the would-be propagator. The box should be sufficiently deep to allow of small pots and seed-pans being placed therein without the

2.—PROPAGATION BY THE USE OF A BELL-GLASS OR CLOCHE. THIS IS AN EXCELLENT METHOD OF RAISING PLANTS AND SEEDLINGS.

upper portion of the pots obtruding above the edge of the box; 4 inches to 6 inches is a suitable depth, although the latter figure is distinctly the better. A lath should either be laid or nailed across the centre of the top of the box, and sheets of glass should be placed thereon and arranged so that they maintain a close condition of the atmosphere inside the simple propagator. Fig. 1 shows an example of a box propagator similar to that just described. The reader will appreciate the fact that abundant light is obtained by the use of this simple contrivance, and an even temperature is largely assured by these means. It is a good plan to place a layer of Cocoanut fibre refuse in the bottom of the box in which to plunge the pots or seed-pans, as this retains the moisture, and less water will be required in consequence.

A large bell-glass or cloche is most useful in the early spring for raising seedlings and propagating cuttings, the even temperature and the humid conditions that are necessary in this work being most easily obtained by its use. Fig. 2 portrays the bell-glass as a propagator, quite a number of small pots being accommodated under a fairly large glass. For growers whose requirements are of a limited character a bell-glass should answer very well, and if such a receptacle were placed in a light window with a sunny aspect, we should have little fear of being able to raise a useful batch of plants by these means.

Fig. 3 portrays a popular method of raising seedlings. The grower whose needs are limited may utilise one or more seed-pans in this way, and those whose demands are not restricted may avail themselves of the use of as many as are necessary for their requirements. No matter whether it may be one seed-pan or one hundred pans, the process is the same. The prepared compost, usually a light and sandy one and always sifted, should be put into pans that have been carefully crocked to within a given distance of the rim of the pan. Leave sufficient space for the seedlings to make a limited amount of growth after the seed has germinated, as the glass can be raised on one side when this period arrives. This same rule applies to each of the propagators described above, as air must be admitted when the cuttings have rooted or the seedlings are making headway; they must be gradually inured to more airy conditions if the plants are to be kept sturdy. Excessive moisture should be wiped from the glass and, generally speaking, this will be at least once each day. D. B. C.



3.—LARGE SEED-PANS, IF COVERED WITH A SHEET OF GLASS, AS REPRESENTED IN THIS ILLUSTRATION, MAY BE SOWN WITH SEEDS AND GERMINATION ENCOURAGED BY THESE MEANS.

SINGLE IRISH ROSES.

[*In Reply to H. J. Crawford.*]

The variety you describe is undoubtedly Irish Elegance. It is, as you have been informed, a splendid Rose for cutting; indeed, it is a good all-round Rose for the garden, as from the end of May to the time the frosts appear in the autumn one may cut its exquisite buds, which develop in water after the colour appears. There is no more charming Rose grown than Irish Elegance. It is a Hybrid Tea, with all the vigour of this grand race combined with the grace and beauty of the true Teas. It will quickly grow into good, large bushes if sparsely pruned, supposing its growths escape injury by winter frosts; in fact, you may grow these single Irish Roses exactly as you would the Tea-scented race, that is, in well-drained soil, the beds slightly raised if the soil is wet, and afford them a space of 2½ feet to 3 feet each way.

If space allowed, a bed of a kind would be best; but if not practicable, then plant in triplicate if possible. If you visited the National Rose Show last July you might have seen one of the table decorations composed entirely of this Rose and Gottfried Keller, a lovely semi-double sort with a Briar-like nature, but perpetual flowering.

In the bud Irish Elegance is most unique in colouring, a sort of bronzy orange scarlet, and these buds under good liberal cultivation are much more elongated than those grown on weakly plants. Liquid manure should be freely applied during May and June and the growths opened out by means of small sticks. This encourages new growths from the dormant eyes in the centre of the plants.

A very charming new Rose that would blend well with Irish Elegance is Mrs. A. R. Waddell. It has semi-double flowers of a somewhat similar tint of colouring, but the buds are not so beautiful as those of Irish Elegance.

Irish Beauty is a large pure white single flower of great charm, possessing an abundance of golden stamens. It is also deliciously fragrant.

Irish Engineer is dazzling scarlet in colour, and of enormous size, with a beautiful circular outline. The growth is not very vigorous.

Irish Glory is one of the best of the set, with very large flowers of a silvery pink in the inside of the petals, the back of the same being flamed with crimson. Sweetly perfumed. This Rose would make a capital hedge of about 3 feet to 4 feet in height, and would be constantly in bloom.

Irish Modesty.—Flowers of a delicate coral pink. The straw-coloured anthers make a lovely contrast. These are some of the best of the set, and they were all raised by Messrs. A. Dickson and Sons. Mr. Hugh Dickson has given us a real beauty in

Simplicity, which will become a general favourite when better known. Its huge single white flowers resemble a large Water Lily. The growth is strong, so much so that we could make a pillar Rose of the variety, and it would blend charmingly with

Bardou Job, a velvety maroon variety that should be in every garden. P.

THE TOWN GARDEN.

Preparations for Seed-sowing.—March may be said to be the month of the year for seed-sowing operations in the open garden, hence it behoves all who delight in garden flowers to make ready for the operation. The conditions calculated to produce the best results are well-tilled and fairly dry soils at the time of sowing the seeds, and unless these actually exist at the moment, the sowing should be deferred for a time. Seeds sown in wet, clammy or generally uncongenial soils cannot be expected to give a good account of themselves later on, and, indeed, in not a few instances they perish in the soil, while the seedsman is directly blamed for that over which he has no control, viz., conditions of weather and the inexperience of the operator. Border soils or beds that during the winter were deeply dug and manured may have their surface texture much improved by an occasional pricking over with the fork, and where heavy or retentive the addition of sand or road-grit will greatly assist matters. For the last-named class of soils the drying winds of March are particularly advantageous, and assist to bring them into the right condition more quickly than anything else.

Vermin-infested Soils.—Where known to be infested with slugs, wireworm or grubs, the soils should be frequently moved a few inches deep to give the birds greater facilities for getting at the ground pests named. The two first-named particularly dislike their places of retreat to be thus exposed, and it has been said that frequent disturbance will rid a plot of ground of that terrible pest the wireworm. That this may be open to doubt I know from my experience. At the same time, should the pest be inclined to depart that way, the method is not a costly one. Soot and lime sown over the soil and forked in are helpful, and so, too, are the advertised destroyers of these pests, such as Vaporite, Apterite and Kilogrub, which are best put in a few inches deep.

Some Seeds to Sow.—It is perhaps a little difficult to recommend a few kinds from a general standpoint, as much by reason of their superabundance as the diverse tastes of those who make gardening a hobby. Of annuals to sow in the open to provide gay sheets of colour, the amateur will not err in sowing such things as Poppy, Linum grandiflorum, Marigolds, Candytuft, the great and varied host of annual Chrysanthemums, such as C. tricolor, C. Morning Star, C. Evening Star, C. coronarium and others that provide bushes of growth and sheaves of blossoms. Sweet Peas, too, must be own.

In the Kitchen Garden.—This department is just as full of work during the present month as the flower garden, and a seasonable reminder to sow such culinary Peas as Sutton's Early Giant and Laxtonian will not be out of place. The pair mentioned embrace the highest Marrow flavour yet attained in the culinary Pea, and, being of a dwarf habit of growth, are economical both in the matter of sticks and in the ground they occupy. When to these good attributes is added productiveness of no mean order, we marvel at the amateur who selects Peas growing 5 feet or even 6 feet in height. Some day, however, the amateur who does this thing will realise that after all, his 6 feet high Peas resolve themselves into 3 feet or less of productiveness. To-day in the Peas of 3 feet or 4 feet in height there is all one could desire—rich Marrow flavour, large size, good colour and productiveness; hence the tall Pea in the small garden is a delusion and a snare.

Hardy Flowers in Season.—The Daffodils are now everywhere in evidence, and snugly ensconced in their sheathing leafage is the promise of rich flowering. Hepaticas, too, are bristling with their blue, white and red cups; the Snowdrop, Crocus and Chionodoxa are all providing their quota of bloom; the Hazels are studded with their almost unseen ruby-coloured crowns; while the Witch Hazel, Winter Jessamine and Forsythia are spurred with blossoms. In the sheltered border or the woodland is seen the quaint beauty of the Lenten Roses, while in the rock garden appears the earliest of the Saxifrages, the Adonis the while showing its golden green cups above a plumose leaf growth that presently develops a charm unequalled at this or any other season. E. H. Jenkins.

THE KITCHEN GARDEN.

SOME GOOD VEGETABLES TO SOW NOW.

HAVING previously drawn attention in THE GARDEN to some good varieties of Peas and Potatoes (*see* page 64), I now propose to give particulars of some other kinds of vegetables which I can with every confidence recommend for both large and small gardens. All those mentioned below can be sown in the open garden from now onwards for the next month or six weeks, a feature that will commend itself to many who do not possess glass accommodation for raising plants. Although for some special purposes it may be desirable to raise plants of such vegetables as Brussels Sprouts and Cauliflowers under glass, I have proved that for all ordinary purposes, providing suitable varieties are chosen, these can be successfully grown from plants raised outdoors in March or even early April. Many gardeners and amateurs go to a considerable amount of trouble in raising plants under glass which might equally as well be raised outdoors.

Onions.—One of the best varieties for general use that I have grown is Webb's Improved Banbury. It is a handsome, clear-skinned variety of splendid keeping quality, the bulbs being rather flat in shape. Equally as good and similar in shape is Sutton's Improved Reading, an Onion that is well known and can always be relied upon to give large bulbs of first-class quality. Carter's Holborn is globe-shaped, of high quality, and an ideal variety for exhibition, the clear skins giving the bulbs a handsome appearance. Of the older standard varieties I would select Bedfordshire Champion, a long-shaped, solid bulb of medium size that will keep sound for a very long time.

Carrots.—So many good varieties of these are now on the market that one finds it difficult to know which to omit from a list that must of necessity be limited. Among the early stump-rooted varieties one of the best I have grown is Carter's Early Market. This variety does not seem to be known among amateurs nearly so much as its merits demand. It is of quick growth, of exquisite flavour, and should find a place in every garden. Quite distinct is Sutton's Champion Scarlet Horn, a red-fleshed variety that has a handsome appearance when cooked. Early Gem, also raised by the Reading firm, is a splendid early Carrot, very short and thick and of excellent quality. Good long-rooted maincrop varieties are Webb's Prize-winner, a bright red-fleshed root specially suitable for exhibition, and Dobbie's Selected Altrincham, a splendid strain of this well-known long-rooted Carrot. Where one maincrop variety only is needed for general use, a good selection of the old Intermediate takes a lot of beating.

Brussels Sprouts.—The most reliable variety of these that I have yet grown is Webb's Prizetaker. It comes in for use at a rather early date, and the large stems are closely packed with hard buttons. Matchless, from the same firm, is also excellent. An old and well-tried variety of pyramidal habit is Dobbie's Selected, which is splendid for small gardens. Carter's Holborn Exhibition and Sutton's Dwarf Gem are other excellent sorts that one can strongly recommend for general use.

Cabbages.—Tender and True is a compact-growing variety, the solid heads of which come into use very quickly. A few years ago Messrs. E. Webb and Sons introduced their New Leader Cabbage, and this with me did splendidly during 1908 and 1909. It is a cone-shaped variety of handsome appearance and fine flavour, and comes ready for use in a short time. Other good Cabbages for spring sowing are Favourite; Imperial, an old variety that is still much appreciated; and Nonpareil, also an old variety, of which there are now several improved stocks to be had.

Cauliflowers.—These excellent vegetables are always welcome when well grown, and, providing suitable varieties are chosen, there is no reason why a few should not be included in even the smallest gardens. They should be given rich soil, as quick growth is essential if large, solid heads are desired. Webb's Early Mammoth is a very early variety, and the heads of this are large and compact. As a first crop variety from outdoor sowings this is hard to beat. Another excellent early kind, especially in a dry season, is Sutton's White Queen, a compact sort of great purity and good flavour. For general late use I have not yet found anything to beat a good strain of Veitch's Autumn Giant, a large Cauliflower of good quality that needs plenty of room to do itself justice. H.

NOVEL AND DELICIOUS VEGETABLES.

I NOTICED your mention of "Sugar Peas as a Summer Vegetable" in a recent issue, and can give one or two others, seldom met with, which we tried last year and found to be quite delicious.

New Zealand Spinach.—In hot weather this is most prolific and superior in flavour to the ordinary Spinach, and never ceases to grow, without running to seed, until the first touch of frost.

Chinese Artichokes.—It is advisable to plant these in a part of the garden where they can be left year after year, as they grow as easily as Nettles in a light soil, and are as hard to get rid of when once established.

Carter's Russian Kale.—Only obtainable from Carter's, High Holborn, London, W.C. A splendid Winter Green, quite unharmed by the frost and snow this winter. The heads are as tender as spring Cabbages and boil a nice light green, and young shoots quickly develop on the old stalk where the head has been cut off. This is our main supply at present.

Shropshire. D. H. B.

BRUSSELS SPROUTS AND CAULIFLOWERS.

GOOD, useful varieties of Brussels Sprouts for the production of firm, medium-sized buttons of the best quality are Sutton's Dwarf Gem and May's Northam Prize; and for a supply of larger buttons The Wroxton, Exhibition and Paragon are all excellent and will give a long supply of first-class produce.

Some cultivators raise their first batch of plants under glass, and in the North and colder parts of the country this method may prove beneficial; but for most Southern localities a sowing, if made in March in a well-prepared bed on a sheltered border, will invariably meet the requirements and supply excellent Sprouts from October to March, and sometimes later. When preparing the seed-beds the soil should be good and made moderately firm, so that the roots of the tiny seedlings may have something to grip. After drawing the drills rather wide at the bottom, sprinkle a little wood-ash and soot over the beds, sow the seed rather thinly than otherwise, and do not bury it too deeply.

All seedling plants should be removed from the seed-beds before they get spindling and pricked out in rows 4 inches apart in nursery beds. These plants will quickly develop into sturdy subjects by the first week in June, and may then be planted 2½ feet apart in a good open position on land that has been deeply cultivated and well manured. Brussels Sprouts delight in firm soil, ample room and a good open spot. As to earthing up the stems, I have frequently adopted the method, but with the exception of steadying the plants in windy weather, I fail to see any difference, the results being about the same. I now depend entirely on drawing rather deep drills at the time of planting.

One of the best little Cauliflowers for the production of early heads I have met with is Dean's Snowball. I grew this for many years, and to follow it used Dwarf Erfurt. The secret in obtaining an early supply of these, when raising the plants under glass, is to avoid a check, otherwise they are almost sure to button, but when given good and careful treatment it is surprising how quickly these turn in. The leaves being so small, a very useful number can be grown in a small space. A rich soil is very necessary for the production of tender Cauliflowers.

H. MARKHAM.

Wrotham Park Gardens, Barnet.

NEW PLANTS.

ODONTOGLOSSUM SPLENDENS.—This is a very beautiful variety, resulting from a cross between O. eximium and O. wilckeanum. The flowers are of perfect shape and beautifully marked, the ground colour being white very faintly tinged with yellow, this being heavily blotched with brownish crimson. On the labellum this crimson is of a more brilliant colour, and altogether the flower is a very handsome one indeed. Seen at a distance the rich colouring is much enhanced. Shown by Messrs. Sander and Sons, St. Albans. First-class certificate.

Odontoglossum eximium E. C. Rogerson.—This is a very prettily marked variety of this well-known Odontoglossum, the shapely flowers being evenly blotched with dull brownish crimson. Shown by E. Rogerson, Esq., West Didsbury, Manchester. Award of merit.

Cattleya Schröderæ The Prince.—This is also a well-marked variety, the labellum being particularly bright in colour. The sepals and petals are of the usual shape and of pale mauve colour, the large labellum being rich carmine with a deep yellow blotch on either side of the throat. Shown by H. S. Goodson, Esq., Fairlawn, Putney, S.W. Award of merit.

Odontoglossum Black Prince.—As its name implies, this is a very dark-flowered variety, the parents being O. lambeanum and O. Rolfeæ. The flowers are of medium size, dull magenta crimson in colour, the margins of the segments having a wire-like edge of white, which lends enchantment to the flower. The labellum is mottled white and dull crimson, with just a small crest of yellow. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Odontoglossum Ceras.—This is another variety which claims O. Rolfeæ as one of its parents, the other being given as O. Rossii rubescens. The sepals and petals are of nearly uniform size and shape, the creamy white ground colour being mottled with dull brownish crimson. The margins have a decided yellow tint, which adds greatly to the beauty of the flower. The large labellum is pure glistening white, and altogether the flower is a very handsome one. Shown by Messrs. Charlesworth and Co., Hayward's Heath. Award of merit.

Disa Lacera multifida.—This is practically a blue member of this rather limited family. The violet blue flowers remind one both in shape and colour of Aconitum Napellus, the hood being decidedly well formed. The labellum is a sort of rosy violet hue and much fimbriated. The flowers are rather sparsely placed on a long, slender stem, and the plant as a whole is very charming. Shown by Messrs. Charlesworth and Co. Award of merit.

Dendrobium Mrs. Fenton Arnton.—This is a very pretty, compact-growing hybrid, the rather large flowers of which are cream coloured and the sepals tinged with rose pink. The broad labellum has a rich yellow ring about halfway from the margin, and below this is a large blotch of rich crimson. Shown by Sir Jeremiah Colman, Bart., Gatton Park, Reigate. Award of merit.

Carnation Miss Tatton.—This novelty of the Perpetual-flowering section is of a rose pink shade, and gives the impression of a faintly striped flower. Though not of the largest size, it would appear to be a variety which will expand more quickly than many during the weather of an average English winter. The tone of colour is one greatly favoured by the florist artist for display under artificial light. Shown by Mr. Burnett, Guernsey. Award of merit.

All the preceding were shown before the Royal Horticultural Society on the 22nd ult., when the awards were made.

TREES AND SHRUBS.

A USEFUL CONIFER.

(Cupressus lawsoniana and Its Varieties.)

THE Lawson Cypress is a native of the Western United States, being found principally in Oregon and North California, where it attains to 100 feet and more high. The great variation shown by this plant under cultivation is seen to a certain extent in a wild state, the typical form having fan-shaped, nearly horizontal branches semi-pendent at the extremities, and the extreme type (if one may use the expression) having stiff, flattened, upright branches. Between these two extreme forms many intermediate variations can be found, some of the most distinctive of which have been named. Other varieties have also arisen under cultivation, so that there are now a large number that have been named, though the value of many as garden plants is practically nil. They may be divided into those of variations of colour of foliage and those which differ in form and habit, the latter being columnar or fastigiate, spreading, pendulous, globose and dwarf. The following list only comprises the best of the varieties, many of those which have been named being only of interest as showing the amount of variation from one typical form :

Cupressus lawsoniana var. albo-maculata.—This is a dense-growing, spreading form, with flattened, fan-shaped branches, irregularly mottled with creamy white. It makes a handsome specimen, but is of comparatively slow growth. The variety albo-picta is very similar.

C. l. var. albo-spica.—This forms a rounded, broadly conical plant, with divided branchlets tipped with silvery white, which is especially noticeable in spring. It makes a splendid specimen, but rarely exceeds 10 feet in height, and is of slow growth. It is one of the worst of the varieties to transplant.

C. l. var. glauca.—This is a handsome plant attaining a height of 50 feet or more, with spreading branches clothed with dense foliage of a beautiful glaucous hue. There are several different forms under this name, but the typical one has a regularly pyramidal habit and forms a good specimen at any size. There is a sub-variety (C. l. var. glauca pendula) which has the ends of the branches pendulous.

C. l. var. lutea.—This is a slow-growing but very effective form, with foliage of an entirely golden tint. It keeps its colour at all seasons, and is useful either for the mixed shrubbery or as a single specimen about 10 feet in height.

C. l. var. Stewartii.—This somewhat resembles the preceding, but is of a freer and looser habit, and a deeper, more orange yellow tint. It is a comparatively fast grower and soon makes a good specimen.

C. l. var. Smithii.—This forms an upright, columnar plant, with graceful foliage drooping at the extremities. The habit is distinctly pillar-like, a plant 20 feet or more in height rarely exceeding 3 feet in diameter, with every branch perfect and in its place. The foliage is of a bright glaucous hue, which improves as the plant ages.

C. l. var. Triomphe de Boskoop.—This has an upright, elongated pyramidal habit, with rather ascending, flattened branches and an intensely glaucous hue. It is a handsome and desirable form.

C. l. var. Westermannii.—This is a bushy, spreading plant, with the foliage mottled with yellow. The stems of the younger growths are also of a bright golden tint, giving it a distinct and attractive appearance. In a young state it is inclined to spread laterally and make many leaders, which should be cut away as they appear.

Variations in Form and Habit.

C. l. var. Allumii..—This is a fast-growing form, with flattened, ascending branches, forming a tall, narrowly pyramidal plant with age. The foliage is of a glaucous green, and the habit of this plant forms a change in the garden.

C. l. var. erecta viridis.—This is an old inhabitant of our gardens, and one which has been considerably overrated. As a small plant up to about 6 feet in height its columnar habit and bright grass green foliage render it effective in the garden, but when it gets larger wind and snow cause the weak branches to bend or break and make the plant unsightly.

C. l. var. Fraseri.—This somewhat resembles var. Allumii in form and habit, being, perhaps, a little more spreading and of a deeper, more grass green colour.

C. l. var. intertexta.—This is a strong-growing form, with fan-shaped, spreading branches clothed with coarser and larger foliage than the type. It is a good plant for a large specimen.

C. l. var. patula.—In this variety the ends of the branches are roughly triangular or wedge-shaped and covered with fine, closely appressed foliage. It is a moderate grower, but when in good condition is a handsome and distinct-looking plant.

C. l. var. Wisselii.—This is a plant that at first sight looks more like one of the tufted forms of Retinospora than anything else. It is upright, of comparatively slow growth, with narrow branches clothed with glaucous green tufted foliage closely packed around the stems. It is an irregular-looking but distinct and rather handsome plant.

Globose and Dwarf Varieties.

C. l. var. densa.—This is a dwarf, compact plant, with regular, fan-shaped branches densely clothed with grass green foliage. It is a very slow grower, but keeps its rounded habit and handsome appearance at all sizes. The varieties compacta, minima, nana, &c., are practically synonymous with this, having but slight variations of form or colour.

C. l. var. densa gracilis.—This is a taller-growing form than the preceding, and the foliage is less dense and more finely cut. It makes a handsome pyramidal specimen, and is especially noticeable in the winter months with its bright green foliage.

C. l. var. gracilis.—This is a globose variety, with long, wiry branches densely crowded on the main stems. The foliage is rather fine and of a bright, cheerful green. It attains a height of 6 feet or so with age.

C. l. var. Shawii.—This somewhat resembles the preceding, differing chiefly in the coarser foliage and more rounded habit. The ends of the branches are also more pendulous. Both are useful as small specimens.

Bagshot, Surrey. J. Clark.

NEW VARIETIES OF CLEMATIS MONTANA.

The introduction of Clematis montana rubens, which so quickly became popular, has been followed by some seedling forms, in the production of which it has played a part. From Nancy M. Lemoine et fils announce for distribution the following three varieties obtained from Clematis montana grandiflora crossed with C. montana rubens. A brief description is also given. The varieties are :

Clematis montana lilacina.—Flowers recalling those of C. montana rubens, but larger ; colour, bluish lilac.

C. montana perfecta.—Flowers a third larger than those of C. montana grandiflora, of perfect form, with very large sepals of a beautiful bluish white, the general appearance of the flower reminding one of Anemone sylvestris grandiflora.

C. montana undulata.—Flowers 7 centimètres to 8 centimètres in diameter, sepals much undulated, white, tinged blue. H. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor of The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Plants for tubs in winter (*H.*).—Laurustinus is the only hardy evergreen shrub which you can grow in tubs to blossom in winter. There are many suitable evergreens that have no pretensions to showy flowers which would suit your purpose, such as the Bay, Laurus nobilis, varieties of Box, Phillyræa latifolia and P. angustifolia and Tree Ivies. If you do not mind a plant which will flower in May and June, you could very well try Choisya ternata, for it is a very good evergreen and bears fragrant white flowers freely. Berberis Darwinii and B. stenophylla would probably succeed as you desire, but we have not seen them used for the purpose. Good shrubs for the smaller tubs, to flower in July, will be found in the various shrubby Veronicas. The hardiest of all is V. Traversii, but some of the numerous varieties of V. speciosa may also be grown. The common Myrtle can be tried if you provide it with a somewhat sheltered corner in winter. Providing you are careful with drainage and the use of proper soil, you may succeed with some of the stronger-growing Rhododendrons, such as Lord Palmerston, Mme. Carvalho, Broughtonii and fastuosum flore pleno. You must, however, provide well-drained peaty soil and never allow them to become thoroughly dry.

Sunk garden without sunlight (*Pigeon*).—You have, unfortunately, omitted to give the size of the beds in the garden, a rather important matter if any arrangement of perennials and annuals is to be carried out with good results. We are not sure, however, that a combination of these would be best in the circumstances, and, as an alternative plan, would suggest planting in October strong-growing trumpet Daffodils or Tulips of the Darwin section, and carpeting the surface of the beds with Tufted Pansies in self colours. These latter would afford carpeting of an evergreen character for the winter and a delightful display of blossoms at small cost from March to June, when their places might be occupied by tuberous Begonias already started in boxes in a greenhouse or frame. The Begonias require nothing beyond good soil to grow in, are perfectly at home in conditions of shade, flower well and long, and require nothing more than a dry cellar to keep them during the winter. They are available in a variety of self colours, increase in strength and vigour from

year to year, and give a flowering which continues from July to October inclusive. The tubers may be purchased now and started in greenhouses for planting out in June. If, however, you prefer the mixed arrangements, we will help you in this when you have given us the size and number of the beds.

Information about a border (*Caroline Testout*).—The Spanish Irises may do quite well if left in the border, and may indeed improve, but the Hyacinths if left for another year will only disappoint, and we should dig them up or cut them to the ground the moment their beauty was gone. We see no reason why the Larkspur and Lavatera scheme would not do quite well, and so far as colour is concerned you could make your own choice, and by going to a good house for the seeds obtain the best results. It would break up the border a little if you had occasional pyramids of Sweet Peas, say, half-a-dozen of these in distinctive colour shades. You may certainly sow annuals in the spaces in the border as the bulbs appear. Plant the fence with Ivy dentata. Unless the Madonna Lilies are of sufficient strength, nothing you can do will make them flower. We can hardly say what requires to be done to your particular Rose plant from your description, though, as a rule, climbing Roses require the strong rods of last year to be left alone to flower, while thinning away all wood of inferior size. If the Rose plant is comprised of a single stem only, it may be necessary to shorten this growth back to one-half its present length or even more, a matter wholly dependent upon the maturity or otherwise of the wood.

ROSE GARDEN.

Climbing Roses for shaded arch (*E. V.*).—Providing you give the Roses a good well-prepared soil, there is no reason why some varieties should not grow upon the shaded arch. A Rose that grows well in the shade is Leuchtstern, but it is not of very rapid growth. A freer rambling sort would be Grüss an Zabern or Hiawatha. Flora and Félicité Perpétue should also do fairly well. We should advise planting Leuchtstern on one side, and one of the others named on the opposite side. The pretty little Scotch Roses grow freely in the shade, but they would not climb much. You could, however, plant some against the trellis, supposing any of this is shaded. We think Roses would succeed better than any other flowering plant. Clematis Flammula would grow freely, but we fear it would not blossom much in such a position. Perhaps you could reduce the shade of the Linden tree by cutting out one or two of its branches, so that some sunshine penetrates to the Roses.

An insecticide for Roses (*S. D. Saunders*).—While there would probably be no objection to mixing potassium sulphide with quassia and soft soap, we think it would be wasteful and quite possibly might, since the solution would need to be more diluted than usual, be less efficacious than if used separately. Further, there seems little need of spraying against aphides, unless the insects are already present. With fungi the case is somewhat different, and spraying with potassium sulphide may check the growth of the spores and so prevent the infection with the mildew.

THE GREENHOUSE.

Leaves of Freesias turning yellow (*N. F. Kelly*).—As great a puzzle as your failure of Primula obconica and, very probably, we should say, owing to the same cause, whatever that may be. The most likely suggestion is, as in the case of Primula obconica, that fumes from the boiler are the cause of the trouble. If not, some other local influence must be searched for. We may, however, point out with regard to the Freesias that we have had several instances of comparative failure brought under our notice this season, but in all those examined the root-action has been very deficient, owing, in all probability, to the bulbs being insufficiently ripened last season. As yours, however, have made sufficient headway to reach the flowering stage, it is scarcely likely that want of roots are the cause of your trouble.

Stopping and timing Chrysanthemums (*J. Wetherby*).—The Chrysanthemums in the list submitted to us embrace both exhibition and decorative varieties. The decorative varieties are the following: La Triomphant and its yellow sport Martinmas (hybrid Pompon), Princess Victoria and Winter Queen, and should be grown in different fashion to the large exhibition varieties. Plants of the decorative variety should be stopped two or three times during the growing period to induce a bushy form of growth, and the last date for stopping should be the end of June. From this point the plants should be taken on to the terminal buds and the latter reduced to one or three on each shoot. In this way beautiful decorative blossoms will be developed for November and December displays. The varieties in the subjoined list are good for exhibition, and the plants should be treated as prescribed under their respective headings. The dates given in each instance are best suited to Southern growers. Yorkshire growers should carry out the same operations about ten days earlier.

Variety.	*When to Stop Plants.*	*Which Buds to Secure.*
Japanese.		
Marquis of Northampton	Second week May	1st crown
Thomas Stevenson	Third week May ..	,,
Reginald Vallis	Third week March	2nd crown
Mrs. W. Knox	Mid-April	,,
Mrs. A. T. Miller	Last week March ..	,,
Miss Hilda Rowley	Third week March	,,
Mrs. J. E. Dunne	Early April	,,
J. H. Silsbury	Second week April	,,
Mrs. Emma G. Fox	Third week March	,,
Incurved.		
W. Biddle	Early April	,,
Doris Raynor	,, ,,	,,
Romance	,, ,,	,,

We do not know the variety Mrs. Simpkins; possibly your plants are wrongly named.

Plumbago not flowering (*N. F. Kelly*).—There is yet no time lost in the case of your Plumbago capensis (not sinensis). As it is only 4 feet or 5 feet high, the better way will be to leave it entirely alone, and then it is more than probable the plant will flower well on the growth made this year. A Plumbago of the height named by you is too small to flower unless it is grown in a comparatively small pot. Planted out it will greatly exceed that height.

Crinum Powelli (*E. Potter*).—You will have to exercise a little patience in this matter, for the above plant is not one to be hurried, and it may be several years before your skill and patience are rewarded, or you may get it to flower in a year or so. Flowering bulbs of the plant frequently reach giant proportions and are of a huge club-shaped outline. The flowering of established clumps of the bulbs is easy enough provided a good growth is made; but what these plants detest is disturbance, and it takes some time for them to recover from the shock sustained. If you intend keeping the plant in a pot, which, sooner or later, it will assuredly burst, you had better at once transfer it to one of not less than 10 inches diameter, giving it some rich loamy soil to grow in and leaving good room for free watering. In an 8-inch pot you would hardly keep it watered sufficiently, and its good growth depends upon ample supplies of water in season. Moreover, in a pot of the size you name, the plant is unlikely to reach that leaf or bulb development so essential to good flowering. All you can do is to encourage as good a growth as is possible, and retain the foliage so long as there is anything worth retaining. Large examples in pots or tubs are frequently placed 3 inches deep in water in summer-time to prevent their getting dry at the roots.

MISCELLANEOUS.

Violets (*Single W.*).—There is no evidence of insects, but the Violets do not appear to be happy under their present conditions.

Climbers for house walls (*Lex*).—If the house wall has to be distempered every three years, the beauty of any climbers you might plant will be considerably discounted unless you erect either vertical wires for training them upon or some coarse mesh wire in sections that would be easily removed and just as readily reinstated. Wall-clinging climbers we should not recommend at all, as before the eaves were reached they would have to be cut down to do the work you speak of. By planting Climbing Roses and Clematises you would be able to beautify the walls considerably, though these would not reach all the way up. We consider that, in view of all the circumstances, the following would be most suitable: Jasminum officinale album, Roses Gloire de Dijon, Mme. Berard, wichuraiana in variety, Aglaia, moschata alba, Rubin and Lady Gay. Of the Clematises you cannot do better than plant C. Jackmanii alba and superba, as these will admit of being pruned practically to the ground each year, which, in the peculiar circumstances of your case, is a great advantage.

Setting a sun-dial (*O. G. B.*).—To attain absolute correctness the gnomon of a dial must have been set by a scientific dialler at just the right angle to suit the latitude of the place where it is to stand. Such extreme precision is now seldom sought after. With clocks and watches so cheap we take an æsthetic rather than a scientific interest in our dials. If that is the view of our correspondent, and he has not had a dial constructed with special reference to his geographical location, he will probably be satisfied to place his instrument on the stone base on a sunny day at noon and get the shadow to fall aright, taking the time with his watch. Then exactly mark the place on the stone through the three screw holes which, no doubt, his dial has. Next drill holes an inch deep and three-eighths of an inch wide in the stone. Fill in with a strip of thin sheet-lead rolled up. Set the dial again by your watch and screw on with three-quarter-inch copper screws through the lead. These are merely rules for a home-worker wishing to avoid professional assistance.

Name of fruit.—*G. H.*—Apple Reinette Grise.

Names of plants.—*Edith A. Bailey.*—Grevillea thelemanniana.—*S. H. B.*—Neillia opulifolia.

SOCIETIES.

THE HORTICULTURAL CLUB.

ANNUAL DINNER.

THE annual dinner of this club was held at the Hotel Windsor on Tuesday, the 22nd ult., under the presidency of Sir John Llewelyn, Bart., about a hundred members and guests being present, including a good number of ladies.

Prior to the dinner, the annual meeting of the club members was held, and a very satisfactory report of the club's progress was given indicating a material increase in the membership and a financial position which left nothing to be desired. A particular feature of the report was the interesting and educational character of the lectures which had followed the various monthly dinners during the season, and which had now been a principal factor for many years in providing subjects for discussion among the experts present to the material benefit of all concerned, the club in this way combining utility with sociability on the best possible lines.

Thanks to the kindness of Messrs. Veitch and Sons, the tables were beautifully decorated with flowers, a special group of Rhododendrons figuring in front of the president as a graceful tribute to the special hobby in that connection in which he has made a decided mark as collector and raiser.

Mr. E. T. Cook, the indefatigable secretary of the club, had seen to it that the inevitable speeches were interspersed with an admirable entertainment, humorous and musical, which was much appreciated. Mr. W. J. Jefferies in a brief and happy speech proposed the toast of "The Royal Horticultural Society," to which Sir Albert Rollit responded in his usual telling and humorous fashion, provoking much hilarity by the anecdotes, intermingled with apt remarks on the importance of the society and its value to the world as a central institution on the largest and best-based foundation of all existing ones.

References were made to the proposed great International horticultural gathering of 1912, and the hospitality which will then be extended to our foreign guests. Sir John Llewelyn then proposed "The Horticultural Club," dwelling on its value as forming the social centre of the Royal Horticultural Society. The Rev. Joseph Jacob responded with much humour and some references to the curious combination of military and horticultural ideas which have actuated a recent public appointment in connection with the London parks.

Mr. George Monro proposed the chairman's health, which was drunk with all honours. Mr. Edward White welcomed the visitors in the name of the club, and Mr. Smith, a Canadian guest, happily responded, thus concluding one of the most pleasant and successful functions in the annals of the club.

THE GARDEN.

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CONTENTS.

SWEET-SCENTED ANNUALS FOR THE OUTDOOR GARDEN .. 121
The Heath garden in midwinter 122
NOTES OF THE WEEK 122
CORRESPONDENCE .. 122
GARDENING OF THE WEEK
For the South and South Midlands .. 124
For the North and North Midlands .. 124
FRUIT GARDEN
Fruit trees and bushes for small gardens 125
On the care and management of orchards.—III. .. 125
COLOURED PLATE
Tuberous-rooted Begonias 126
GREENHOUSE
Capsicums 127
A note on Bouvardias 127
Notes on Orchids .. 128
KITCHEN GARDEN
A useful early Broccoli for amateurs.. 128
The garden Swede in spring 128
Pea Carter's Daisy .. 128
FLOWER GARDEN
The fascination of the Crocus 129
FLOWER GARDEN
Bryonia dioica as a garden plant 129
Daffodil notes 130
Sweet Pea chat 130
Nemesias and their culture 130
Narcissus Blackwell and boxes for Daffodils 130
ROSE GARDEN
Pruning Roses 131
Hybrid Tea Roses as half-standards .. 131
GARDENING FOR BEGINNERS
Garden work week by week.. 132
Propagating the Lobelia 132
Spring treatment of Peach trees .. . 133
How to grow Cucumbers in a frame .. 133
THE TOWN GARDEN .. 133
TREES AND SHRUBS
Shrubs for bordering paths 134
Rhododendron Gauntlettii 134
ANSWERS TO CORRESPONDENTS
Flower garden 134
Rose garden 135
Kitchen garden .. 135
Miscellaneous 136
SOCIETIES 136

ILLUSTRATIONS.

Narcissus Blackwell 124
A box for carrying Daffodils to shows 125
Crocus aureus var. lacteus 126
Tuberous-rooted Begonias .. .. Coloured plate
A group of Capsicums for the greenhouse 127
A good crop of Pea Carter's Daisy 128
The Bryony (Bryonia dioica) in a Scottish garden .. 129
A bed of hybrid Nemesias in a North London garden 131
Propagating the Lobelia 132, 133

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

SWEET-SCENTED ANNUALS FOR THE OUTDOOR GARDEN.

AMONG the vast array of hardy and half-hardy annuals which are available for culture in this country, it is surprising how few of them are really fragrant. It is true that among them we find a few that can lay claim to be included in the front rank of sweet-smelling flowers, but, generally speaking, most of the annuals grown in gardens to-day are devoid of scent that is agreeable to most persons. The sense of smell differs, of course, in different people, and I have known those who have a partiality for the pungent smell of African and French Marigolds, Nasturtiums and similar flowers; but the scent of these can scarcely be included under the title of this article.

Although, comparatively speaking, fragrant annuals are so few, there is a good number to select from, many of which are but little known. That these sweet-smelling and easily grown plants are not cultivated nearly so extensively as their merits deserve I think no one will deny; and as the time of sowing is now with us, attention drawn to some, at least, of them may result in their inclusion in many gardens where they have hitherto been omitted. A flower without scent is to the writer only half a flower. True, we may have graceful outline, delicate colours, freedom of flowering and a perfectly shaped plant, but without fragrance the life of the flower seems missing. Of course, I realise that scentless flowers have their uses; but where we can combine the good points named above with a delicious fragrance, surely the usefulness of the plant is considerably enhanced.

Undoubtedly the most popular fragrant annual of to-day is the Sweet Pea, and as it is so universally grown, more need not be said of it here. Following it closely in popular favour comes Mignonette, a plant that has found a place in our gardens for many years almost solely on account of its fragrance. It has not the showy colours and graceful outlines of the Sweet Pea to commend it to our notice, yet few owners of gardens would care to be without it. Next must come the annual Stocks. Those known as Ten-Week Stocks and several other strains of annual varieties are well known, and their fragrance, which is reminiscent of old-world gardens, is highly appreciated. A humbler and not so well known member of the Stock family is the Night-scented Stock, a dwarf-growing slender plant that in the daytime has the appearance of a collection of withered, wire-like shoots. But take a stroll round the garden in the evening, just at dusk and when the dew is falling, and behold! a transformation scene has taken place. The withered, wire-like shoots are studded with charming little cross-shaped flowers of lilac hue, which are sending their delicious fragrance far and wide. I know of no greater pleasure connected with the garden than to sit by an open window after a strenuous summer's day and inhale the fragrance of a clump or two of this insignificant-looking little annual.

Another plant, but of more imposing stature, that gives us the delicate fragrance of its flowers freely in the evening is the sweet-scented Tobacco Plant, Nicotiana affinis, a tall-growing half-hardy annual known to most readers. In addition to the type, we now have the many beautiful coloured hybrids of this plant, which are equally as sweet-scented. A half-hardy annual that is seldom met with, but which possesses a delicate fragrance, is Martynia fragrans. It is not one of the easiest plants to cultivate, and seedlings must be raised under glass. It grows from 12 inches to 18 inches high, has woolly leaves and large pinkish flowers, which are followed by large pods, each of which has a sharply hooked end. In addition to its fragrance, this plant is interesting as showing one of Nature's many methods for the distribution of seeds.

Sweet Sultans are known to most of those who have gardens of even the smallest size, but it may not be so generally known that yellow-flowered varieties can be obtained. The Pink family gives us several plants that are either annuals or can be grown as such, notable among them being Dianthus laciniatus varieties and the Indian and Japanese Pinks. These possess a fragrance similar to that of the earlier-flowering perennial Pinks, though not quite so pronounced. An annual that is not well known, and which is suitable for growing in shady places, is the charming little blue-flowered annual Woodruff, Asperula orientalis. Schizopetalon Walkeri is another plant that is not well known. It is a pretty-foliaged annual with a delicate sweet scent and graceful-looking white flower. Last, but by no means least, in the list comes the Candy-tuft, an old-fashioned plant that to many will recall happy days of long ago, when such plants as this were the chief favourites of our gardens.

I would specially urge those who appreciate sweet-smelling flowers to plant or sow them freely in close proximity to the dwelling-house, so that on rainy days, or when the weather is otherwise unsuitable for wandering in the garden, their fragrance may be enjoyed through partially opened windows. Those whose gardens adjoin a public highway may give pleasure to those who pass by sowing freely the little Night-scented Stock.

F. W. H.

THE HEATH GARDEN IN MIDWINTER.

THE beauty of the Heath garden in winter surpasses all that comes to us from garden sources at that season. Some time ago I had the pleasure of describing the different kinds of Heaths of Britain and Western Europe which deserve cultivation, and now I have been so much struck with the winter effect that I write of that alone. In midwinter, at or about Christmas, three good kinds are coming into bloom, and their general effect is charming—I mean the hybrid Heaths, the Portuguese Heath and the little forest Heath, with all its buds ready to open. Very striking of late has been the effect of the past flowers, such as the Cornish Heath (Erica vagans) and the Dorset Heath (E. ciliaris).

It is sometimes desirable to cut down Heaths. The late James McNabb was, perhaps, the first, in the restricted area of the Edinburgh Botanic Gardens, to show a great interest in Heaths, and he used to cut his down very often. But, seeing the beauty of the winter effect of the brown and past flowers, I think it is better not to cut down. Occasionally a scraggy or weak group may be better for cutting down halfway, but not as a general plan; because at this season the warm colour of the foliage and flowers is so nice amid the general desolation of gardens. Heaths may even give us good flowers in January—at least, they do with me, the three kinds previously mentioned. When everything else is desolate the Heath garden looks as well as ever. These moor-born plants take no notice of storm or rain; they rather seem to enjoy them. In this dull season the flowers are not quite as early as usual; the beautiful Portuguese Heath shows its ruddy buds when it ought to be in flower, but it is as pretty the one way as the other. The main thing for the Heath garden is the position; but in country places there are so many rough banks and surfaces which gardeners are shy to deal with, that there should be no difficulty about finding a position. Often, best of all places are rough banks where hardly anything else will grow. But where these do not occur, there are often scattered conifers not good for the Heaths, because the grass robs them of all the moisture. A good way is to dig up the ground around the Pines and plant Heaths among them. The trees will look all the better for it, and the Heaths will help to tie them together. The idea that peaty soil is wanted is quite wrong; Heaths often do better even in brown soil, if we avoid lime, and much preparation is not wanted, or even desirable, and any kind of manure is needless. The grouping is very important. There should be nothing suggestive of a garden; the Heaths should be arranged in natural masses occasionally running into each other, but, generally, each kind should be kept to itself. No trace of what architect gardeners call a "lay out" should be seen; an easy grass walk all round the planted space is enough.

There is one great advantage in this charming phase of gardening. We are not limited as to country; all parts of the island can be embellished in this way—the colder the better, perhaps. With other plants we have often to think where we are, because what may do in Dorset may not do in Yorkshire. With these precious Heaths it is not so; even in the Home Counties one sees large areas of them growing naturally. Where the house is among or near the Heather, as it sometimes is, it may be thought needless to do more; but there are beautiful things that are not native that come in well, and some native kinds are confined to one district, like the Connemara Heath, which is hardy when cultivated over a large area of our islands. The Portuguese Heath (E. lusitanica) and the little Alpine Valley Heath (E. ciliaris) are, of course, not native, and are well worthy of a place.

Heaths should be planted as early in the winter as may be; the risk of carriage by rail in dry weather and drought in spring, and also old plants, should be avoided. Those which do best are the young. Happily, the plants are easily propagated; they are rather plentiful in nurseries, especially those of Derbyshire and Surrey, and are sold by the dozen or hundred at a moderate price. It is important to emphasise the fact that some of the kinds and some varieties, like the grey Heather (E. cinerea), have beautiful rosy bloom, which is much prettier in colour than the wild one, and, indeed, finer in effect of colour than any flower in the garden at that season. To get the full effect of this it must be planted in numbers of a dozen or more plants. There are other forms of wild Heather even prettier than the normal, such as the coppery form of the wild Heather, which is quite beautiful now, and has been so throughout the winter. In the same way the Connemara Heath, which gives no good effect if arranged in a hole-and-corner way, should be planted in groups. The plants are easy of division if pulled in pieces carefully in the autumn or winter.

W. ROBINSON, in *Country Life*.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 14.—United Horticultural Benefit and Provident Society's Annual General Meeting.
March 17.—Torquay Spring Flower Show.

United Horticultural Benefit and Provident Society.—The annual meeting of this society will be held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday, March 14, at 8 p.m. Mr. Charles H. Curtis, chairman of committee, will preside on this occasion.

Botanical Gardens, Edgbaston.—Under this title a short illustrated and descriptive booklet of these gardens is now published, price 3d. The illustrations are very charming indeed, especially those of the beautiful alpine garden and the Rhododendron walk. The letterpress, too, is good, and altogether the booklet is worthy of much praise. We presume copies can be obtained from either the secretary or the curator by sending the necessary amount in stamps.

British Gardeners' Association. At the last meeting of this association, Mr. George Hemming in the chair, resolutions were passed condemning the action of the London County Council in appointing a soldier as Chief Officer of the Parks Department. A subcommittee was appointed to consider the advisability of convening a congress of gardeners, and invitations will be issued to leading members of the profession to take part in it. Fifty-three new members were elected, bringing the total up to 1,706.—J. WEATHERS, *Secretary*.

Wolverhampton Floral Fete.—The twenty-second annual exhibition of flowers, vegetables and fruits is to be held on July 12, 13 and 14 next in the West Park, Wolverhampton. We have just received a copy of the schedule and, as usual, find the committee is fully alive to the necessity of keeping the exhibition well abreast of the times. An important new class this year is for a rock and water garden, the first prize for which is £21, the total of prizes amounting to £50. Other new classes are for collections of named stove and greenhouse plants. In the cut-flower section there are new classes for single and double Zonal Pelargoniums and Carnations. A new class for fruit is for a collection of ten dishes, the first prize here being £8. In addition to these new classes, the old ones are retained, a first prize of £40 being offered for a display of miscellaneous plants. Copies of the schedule can be obtained from the secretary, Mr. W. E. Barnett, Snow Hill, Wolverhampton.

National Dahlia Society's Conference.—A most successful conference on Dahlias was held by the above society on Friday last at Carr's Restaurant, Mr. Edward Mawley presiding. Some excellent papers were read and fully discussed, the subjects being as follow: "Dahlias in Garden Decorations," by George Gordon, V.M.H.; "Growing Dahlias for Exhibition," by James Stredwick; and "Methods of Exhibiting Dahlias," by J. B. Riding. About sixty members and friends, including ladies, were present. The papers will be published, together with the discussion, and issued to all members of the society. A hearty vote of thanks to the chairman and the readers of papers terminated the proceedings.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Iris stylosa.—I am glad to say that my experience of the behaviour of Iris stylosa during the present season is not that of your correspondent in THE GARDEN of March 5, who laments the absence of flowers on his forty clumps. After last summer's dull and rainy weather I quite expected that this Iris would fail, but, to my surprise, I found about the beginning of the year that the flower-shoots were unusually numerous. The first bud opened on February 7, and since then we have had a continuous supply. My plants have no protection beyond that afforded by a south-westerly aspect and the wall at their back. The soil is the lightest and poorest of sand, and I believe that it is to this that their success is due. Curiously enough, a group of a very small-leaved variety of Iris unguicularis from the Greek island of Cephalonia, which has hitherto given me only two flowers, are this year full of buds, although they are entirely in the open without any wall to protect them. Judging by the fragments of soil adhering to various varieties of this Iris which have from time to time been sent to me from abroad, they seem to prefer a stiff clay, but it is probably true that it is only seldom that we have sufficient hot sun in England to ripen the rhizomes of plants growing in heavy soil. Where it is impossible to provide them with a light, sandy soil and a dry position, it might be worth while to try the experiment of lifting a few clumps for a day or two at the beginning of September, keeping them during that time out of the ground in an airy spot, shaded slightly from hot sun, and then replanting them in their former positions. New roots form quickly at that time, and the plants readily become established again before winter.—W. R. DYKES, *Charterhouse, Godalming*.

Calceolaria violacea.—While agreeing with your correspondent on page 102 that Calceolaria violacea is a very pretty and interesting shrub, I feel, however, that I must differ from him somewhat when he goes on to say it is quite hardy in the South-Western Counties. We have several plants of Calceolaria violacea growing here in different situations, and although protected each year with Spruce and Fir branches they get severely damaged by the frost. I know also of several gardens in the South-Western districts where they have tried to grow this Calceolaria year after year, but have given up in despair on account of its tenderness. I have no doubt that there are a few exceptionally well sheltered gardens in which it grows and passes through the winter uninjured by the frosts, but those are very few indeed. Therefore I say to generalise the statement that they are quite hardy in the South-West is apt (if allowed to pass unnoticed) to mislead those who are not acquainted with this beautiful little Chilian shrub.—F. W. RICH, *The Gardens, Elfordleigh, Plympton*.

—— Referring to this flower, while it is true, as your correspondent Mr. E. C. Pooley

says on page 102, that Calceolaria violacea is hardy in the South-West of England, it is none the less true that it cannot be accounted as a hardy plant in the North of England or even in the milder South-West of Scotland. In the latter it will sometimes survive a mild winter, but it is generally destroyed. It is a very beautiful plant and one which is worthy of any degree of praise, as many places where I have seen it could show. It is very distinct, and the pretty colour, fairly well indicated by the specific name, causes it to appeal even more strongly than it would otherwise, although it is a plant which it is hopeless for some of us to attempt in the open.—S. Arnott, *Dumfries.*

The best twelve Sweet Peas.—I am very interested in the various lists given of the twelve best varieties, but I am of opinion, as one says, "There are no twelve best"; all have, more or less, their own pet fancies or varieties which they have grown or seen at shows, but perhaps never had a chance of comparing in the large trials at Reading or, more particularly, in the trials of the large trade growers or merchants, who always have some 500 to 800 rows growing for comparison. Then there are now so many names for practically the same variety, or, if not identical, so near as may be best described as a distinction without a difference. I feel sure if a hundred were asked to name the twelve best, not two lists would be alike, particularly if they were asked to place them in their order of merit. Then, again, all your correspondents seem to ignore the old or original type, among which are many charming varieties and with the great advantage that they are fixed, and may in most cases be relied upon to come true. For those who have not seen my little book, "All About Sweet Peas," may I give your readers my lists, which I find contain most of those mentioned in the various lists given, but which adds a second twelve which it is very desirable to grow, for I often find one variety will grow very much better in some places than others, and it is most desirable to have a few spare varieties when one has to have twelve distinct for exhibition. First twelve waved arranged in alphabetical order: Apple Blossom Spencer, Clara Curtis, Constance Oliver or Mrs. Henry Bell, Countess Spencer, Etta Dyke, Evelyn Hemus, George Herbert, Helen Lewis, Marjorie Willis, Mrs. Charles Foster, Mrs. Hardcastle Sykes and Sunproof Crimson. Second twelve (waved).—America Spencer, Black Knight Spencer, Chrissie Unwin, Elsie Herbert, Frank Dolby, Gladys Unwin, Mrs. A. Ireland, Mrs. Henry Bell or Constance Oliver, Paradise Ivory, Phenomenal, The Marquis and Zephyr. In giving the above twenty-four waved varieties, some may fancy others which I consider too much alike. For instance, in the first twelve I give Mrs. Henry Bell; some may prefer Mrs. Routzahn Spencer, others Mrs. Hugh Dickson or Romani Rauni; if we take Mrs. Charles Foster some may prefer Masterpiece or Asta Ohn, others Frank Dolby, and so on. Newest varieties.—Charles Foster, Earl Spencer, George Stark, Mrs. W. J. Unwin, Prince of Orange and Tennant Spencer. This last list of newest varieties is what will be most desirable, and will take the place of some of the twenty-four above-mentioned when there is sufficient stock to put them on the market at a popular price. There were a few other new varieties shown this season (1909) which would have been included in this list, but at present they are too unfixed. First twelve (old type).—Black Knight, Dorothy Eckford, Duke of Westminster, Helen Pierce, Jeannie Gordon, Lady Grisel Hamilton, Miss Willmott, Mrs. Collier, Prima Donna, Prince of Wales, Queen Alexandra and St. George. Second twelve (old type).—Dainty, Coccinea, Herbert Smith, Hon. Mrs. Kenyon, Janet Scott, King Edward VII., Lord Nelson, Millie Maslin, Mrs. Walter Wright, Prince Edward of York, Queen of Spain and Triumph. Third twelve (old type).—Agnes Eckford, Agnes Johnston, Evelyn Byatt, Henry Eckford, Horace Wright, Jet, Lord Rosebery, Lottie Eckford, Lucy Hemus, Romolo Piazzani, Salopian and Sybil Eckford. There may be some difference of opinion as to which ought to be in the second and third twelve from the last twenty-four. This, I think, would be more a matter of fancy rather than of merit if a third twelve is wanted. Striped varieties.—America, Jessie Cuthbertson, Mrs. J. Chamberlain, Prince Olaf, Senator and Unique. For further information I shall be pleased to post my book to any enquirers for sixpence. It describes over 700 varieties and gives a full list of those too much alike to warrant separate names, and which are so confusing to amateurs when making a small selection.—Robert Sydenham, *99, Tenby Street, Birmingham.*

Cheap labels for fruit trees.—I noticed in The Garden for February 12 a paragraph headed, "A Cheap Label for Fruit Trees," referring to Mr. West's aluminium labels. I have been, and am at present, using these labels, and I consider them to be, so far as I am aware, the most easily attached and useful labels on the market. I notice, however, that you go on to say that they can be written on with an ordinary lead pencil, which in itself is quite true; but in my opinion, based upon my actual experience, that is not, owing to the illegibility and quick disappearance of pencil writing, the best method of writing on them. Personally, I always now use an indelible black "garden ink," which I find to be absolutely the best indestructible ink on the market for writing on aluminium, zinc, wood or paper labels. As far as I am aware, Messrs. Reeves and Sons, Limited, Dalston, London, N.E., are the only manufacturers of it; but I believe that Mr. West of Higham Hill will supply it for use with his labels. With regard to your reference to "Tonk's Mixture" for Rose trees, I personally find that it is wiser to omit the sulphate of iron for white Roses and to considerably increase the proportion of the same for yellow Roses, for with the former it is inclined to spoil their whiteness, whereas with the latter it is inclined to intensify their yellowness.—Harry R. Wild, *Berkhamsted, Herts.* [We have some of the labels referred to now in use that were written on with an ordinary lead pencil eighteen months ago, and the writing is still perfectly legible. Moderate pressure should be used when writing.—Ed.]

Horticulture in Scotland in 1759 and now.—Of very special interest to me was the reference to the old Red Lancashire Kidney Potato made in the extracts from Proceedings of the Edinburgh Society of 1759, published on page xii. of The Garden for February 19. Few persons living probably remember that old and once-popular kind. I remember it as constituting one of the chief stocks of seed Potatoes grown at the Southern nursery in which I was born, a recollection which dates back to over seventy years. With Lancashire Kidney, a rather long, pale red and deep-eyed form, were the old perennial Ashleaf Kidney, Jersey Blue, Fortyfold and a few others, not one of which, other than the Ashleaf, probably exists to-day. It seems now so odd to read of the prizes offered then to Potato-growers to increase their production in Scotland, when realising what a very important factor in Potato production that country has now become. Very likely the offering of those prizes in 1759 did much to stimulate both growers and raisers in that Northern country, although a century elapsed before old Paterson created his famous Victoria and Regents, work so ably continued by more modern raisers, and now Scotland is the very paradise of the seed Potato, for from its soil goes forth into the world thousands of tons to be the crop creators of each successive season. It cannot now be said that the culture of the root is not sufficiently known in Scotland, but it shows the marvellous development both of Potato varieties and of culture which has taken place since that remote year. How odd it sounds in reading of prizes offered for the wider planting of Oak and Elm trees there, when Scotland now has such noble woods and forests; still more so when the subject of national afforestation is one of such great importance. The selection of Apples given in the extracts shows a very limited one, and indicates that Apple culture was at that time at a very low ebb. Grey Lydington is doubtless the same as we term Grey Leadington, a very little known and grown variety. It is very interesting to find that if but few modern Apples have come from Scotland, at least one, James Grieve, occupies a high position among our best dessert varieties. If Scotland has gone ahead strongly in Potato culture, England has not been behindhand in Apple production, and even the Emerald Isle is following both rapidly in Potato and Apple production. When it is remembered how a few score years since there grew up a rage for large farms, and hedgerows were swept away wholesale, it is amusing to read of prizes being offered to farmers who raised and planted Whitethorn hedges. Reasons for offering such prizes are not given, but it may be assumed that the hedges formed, in so Northern a country, a valuable shelter for crops and stock. Here in England, now that the demand for small holdings is growing, it is just possible the demand for Whitethorn hedges for both shelter and lines of demarcation may grow also. During the past half century railway companies seem to have been the chief planters of such hedges, and they have made both good use of them and kept them in condition.—A. D.

Three little-known Roses.—The excellent illustration of Rose General Schablikine in The Garden for February 19 suggests this note. This variety was sent out in 1897 by Nabonnand, and, although reputed to be one of the late Dean Hole's special favourites, is surprisingly little known. It is one of the most effective bedding Roses we have, and the colouring is very beautiful—bright coppery red, shaded with yellow and salmon. Although a very good grower and free, it is one of those that needs scarcely any pruning. M. Nabonnand sent out a second Rose in 1899 named General Gallieni, which is also far less known than it deserves. This is crimson, tinted with blood red, not very large flowers, but produced freely and very lasting. These two with Capitaine Millet should be in every garden where finely shaded Roses are wanted. All are hardy and exceptionally free-flowering. It is strange how some of our finest decorative Roses get forgotten. Simply because they did not happen to figure prominently in the exhibition stands when new, many are not asked for, and so the trade grower allows them to fall out of stock.—A. P.

The spelling of Rose names.—Many people besides myself must often have noticed the numerous variations in the spelling of the names of certain well-known Roses in the catalogues and advertisements of the different growers. Such names as Mme. Mèlanie Soupert, Homère, Charles J. Grahame, J. B Clark and W. E. Lippiatt, to mention only a few, are often spelt as follows, viz., Mme. Melaine Soupert, Homer, Charles J. Graham, J. B. Clarke and W. E. Lippiat or Lipiatt. Melaine and Homer are perhaps the most common errors, and occur in many catalogues. Even Mr. T. W. Sanders in his "Roses and Their Cultivation" spells Mèlanie as Melaine and Lippiatt as Lippiat. Several of the very best catalogues are disfigured by these errors, so that new amateur Rose-growers are apt to get hold of a wrong spelling through no fault of their own. I think we might reasonably accept the National Rose Society's Official Catalogue as a final court of appeal in all doubtful cases, though it should hardly be necessary to refer to any authority in the case of such a comparatively common Christian name as Mèlanie, or as to the spelling of such a name as Homère when the Rose is known to have been raised in France.—W. E. Leffler.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

PEACHES.—The fruits of these in the early houses will now be swelling rapidly, and the night temperature may be slightly increased. The trees must be well syringed twice daily on bright days, and plenty of moisture kept about the flooring of the house. The disbudding must be carefully and gradually done, removing a few of the fore and back shoots first. After a few days more may be taken off, allowing a day or two between each operation till the work is accomplished. If the borders require watering, give a good soaking with tepid water.

Figs in pots that are carrying heavy crops of fruit will need a little stimulant to assist in the swelling of the fruit. All shoots should be pinched at the fourth or fifth joint. By stopping all shoots close, fruits will form at the axil of each leaf, and a second crop is obtained.

Melons.—The temperature in the Melon-house must be maintained at 70° to ensure quick growth. The first lot planted early in February will by now be showing the first fruits. If there is not sufficient, these may be rubbed off and the laterals stopped and a more even crop obtained from the next growth. Plenty of syringing is necessary at this period to keep the plants growing well.

KITCHEN GARDEN.

Peas.—Pot-raised Peas may now be planted on warm borders. Chelsea Gem and Little Marvel are excellent for this purpose. Draw out shallow drills 3 feet apart and plant 9 inches apart in the rows. By planting in drills more protection is obtained than on the level. As soon as planting is completed, a little soil may be drawn up to the plants and the sticks put in. A few pieces of Fir branches placed outside the permanent sticks will be found very beneficial till the plants root into the soil. The ground between the rows can be utilised for early Lettuces, Spinach or any quick-growing crop that can be taken off before the Peas are ready for use.

Seakale.—Sets that were prepared when the old roots were taken up for forcing may be planted. Dibble them into rows 20 inches apart and 12 inches in the rows. These will make nice roots for forcing next winter.

Vegetable Marrows.—A few seeds may be sown now for early use; Custard and an early white variety are very useful. These may be raised in heat and planted in frames. The frames that were used for the first lot of Lettuces will receive the Marrows as soon as they are ready, for the Lettuces are being used fast now.

PLANTS UNDER GLASS.

Schizanthus.—The earliest batch of this useful decorative plant will require a little stimulant two or three times a week. Attention must be given in the way of tying, or as the shoots get heavy with flowers they may snap off. The best plan is to have one stick for the centre of the plant and loop all shoots to it with green matting or Raffiatape.

Amaryllis.—Plants that have finished flowering must be given an occasional feeding to assist in the development of the foliage and the building up of the bulb. This must be continued through the growing period until the leaves begin to turn yellow, when all water must be gradually stopped.

Gardenias.—When the flower-buds appear plenty of nourishment is necessary. Keep the plants well syringed to prevent any attack of red spider. Where a stock is required, the young shoots may be taken off and placed in the propagating-case.

Dracænas.—Where these have become leggy and unsightly, the usual method adopted is ringing; that is, the stem is notched just below the foliage and moss tied round. This must be kept moist, when it will be found that roots soon appear through the moss. When this occurs, cut through the stem close under the moss, pot the plant and place in the propagating-house.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

PRIMULA SINENSIS.—It is usual to advise sowing seeds of this valuable winter-flowering plant in May and June. This is, I think, a great mistake, in the North at all events. Like most of the soft-wooded plants, the Primula dislikes forcing with artificial heat, and unless one sows early the plants have no time to attain to a decent size before they are wanted in flower. I find that in every case the best results are obtained by sowing from the middle to the end of March. Although the Primula dislikes strong heat in its later stages, it is best to sow the seeds in a fairly brisk but moist warmth. Well-drained pots or pans should be used and very light compost—sweet leaf-mould and sand will do. Sow thinly, as Primula seeds germinate slowly and unevenly. Some may appear in a fortnight, while others may take six weeks to come through the soil. Cover lightly and, when the soil begins to get dry, plunge into a bucket of tepid water up to the rim for a few minutes. The best strain should be obtained, as there is pleasure in cultivating a good thing, and the trouble is no greater than with a weedy strain. The Star section is well worth growing, as the plants are much better suited for room decoration than the big-flowered sorts, and are also valuable for cutting.

Primula obconica gigantea.—This is a very decided improvement on the old type, and everyone who delights in really fine flowers at a time when these are not over-plentiful should sow a packet of a good strain of this valuable addition to our winter-flowering plants. Sow the seeds at the same time and in the same manner as advised for P. sinensis. The seeds may be sown thicker, however, as this Primula germinates much more evenly than most of the species.

Begonia Gloire de Lorraine.—Cuttings will now be available from the plants cut down early in the year. These are very easily rooted if they are inserted in small pots of sandy peat or leaf-mould and sand. If bottom-heat is not available, the cuttings will root quite readily in a box covered with a sheet of glass. The glass should be turned twice a day to prevent drip.

Bedding Begonias.—Bulbs of these should now be boxed or potted and placed in a little warmth to start. Many advocate starting them in a cool house or frame; but I have found that the bulbs start more evenly together if a gentle heat is provided, and, besides, in our Northern districts it is advantageous to have the plants a good size before planting-time, or the chances are that the beds will never fill all the season. Do not bury the bulbs very deeply; just merely covered is all that is necessary. Too much water must be avoided until growth is active.

NARCISSUS BLACKWELL. (*See page 130.*)

FRUIT GARDEN.

Strawberries.—In many of the later districts it is almost impossible to plant in autumn. Growth is so long in starting that runners are only formed late in the season, and are unprocurable until so near winter that it is very risky to plant until spring. If the ground was well dug and manured during winter, the first chance in dry weather should be taken to get the Strawberries planted. If the ground has only recently been dug, tread it well before planting.

C. BLAIR.
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THE FRUIT GARDEN

FRUIT TREES AND BUSHES FOR SMALL GARDENS.

THERE are many gardens too small to accommodate large-growing fruit trees, such as standard Apples, Pears and Plums; but much can be done by the amateur who takes an interest in fruit culture and is anxious to make the best of matters by selecting a few bush Pears and Apples, also Gooseberries, Red and Black Currants, Raspberries and Strawberries. These, with a little care and attention, would soon yield very nice crops of useful fruits. Only those varieties should be planted that are known to be prolific and of the best quality, remembering that it takes the same amount of space, time and labour to grow an inferior sort as it does to grow a good one.

Among the best Apples for bush trees in the order of ripening will be found: Dessert—Beauty of Bath, Worcester Pearmain, King of the Pippins, Cox's Orange, Duke of Devonshire and Lord Burghley; cooking—Ecklinville Seedling, Lord Derby, Warner's King, Lane's Prince Albert, Bramley's Seedling and Newton Wonder. Pears: Williams's Bon Chrétien, Conference, Durondeau, Pitmaston Duchess, Emile d'Heyst and Doyenné du Comice. The season for these Pears is from September to Christmas, and one of the best to ripen in January is Nouvelle Fulvie. The above are all dependable varieties and will give a long season of fruits, and if some do not attain the largest size, the quality is very satisfactory.

It is no uncommon occurrence to meet with old, worn-out standard trees infested with American blight and cankered branches encumbering the ground, and the crops produced are of no practical value. I am no advocate for retaining these old, useless stagers, and would strongly advise their immediate removal. Put the land in order and replant with healthy young bushes, and, if there is room for extension, half-standards of any of the varieties enumerated above may be included. With careful attention these trees would quickly develop into nice fruitful specimens. When planting fresh trees, avoid as far as possible the old stations. If there is no option and the new trees must occupy the same positions as those removed, the old soil for several feet round should be dug out, taken away and the holes refilled with a good fertile compost, such as turfy loam from a pasture. To the inexperienced changing the soil may appear a rather tedious job, but it will more than repay the extra labour and trouble.

Land in good heart will need but little preparing. It should be well worked to a depth of 2½ feet, breaking up the subsoil, and, if water cannot freely escape, drains or other means must be employed to carry off the water, there being nothing more detrimental to fruit trees than a stagnant or ill-drained soil. In many cases 9 inches of old broken bricks to form a drainage beneath each tree will answer admirably, and over the drainage place turves, grass side downwards, and then fill up with good soil.

After going to the trouble and expense of thoroughly preparing the station for the reception of the roots, purchase the trees from some well-known firm who has a high reputation to maintain. A little extra cost more per tree is practically nothing compared to inferior stock and not true to name. When planting do not bury the roots too deeply. Spread them evenly out, so that they rest on a rather firm bottom, and cut away the tips of any that are broken or damaged. Shake plenty of fine soil round the stems and among the roots, and cover them up to a depth of 4 inches to 6 inches, following with a mulching of manure. See that each tree is made secure against wind-waving and correctly named.

Gooseberries, Red and Black Currants and Raspberries should find a place in all small gardens. I know of no better variety of the Raspberry than Superlative. Good bush fruits are: Gooseberries, red—Crown Bob, Lancashire Lad, Dan's Mistake and Keen's Seedling; yellow—Golden Lion and Golden Gem; white—Whitesmith, Howard Lancer, Antagonist, Shiner and Overseer; green—British Queen, Langley, Keepsake and Telegraph. Red Currants—Fay's Prolific and Raby Castle; White Currant—Transparent; Black Currants—Baldwin and Boskoop Giant. Strawberries—Royal Sovereign, Leader, Sir J. Paxton and Givon's Late Prolific. There are numerous other good varieties, but the above will be ample for small gardens.

H. MARKHAM.

Wrotham Park Gardens, Barnet.

ON THE CARE AND MANAGEMENT OF ORCHARDS.—III.

(Continued from page 83.)

IN my last notes I referred to the pruning of orchard trees generally, and tried to emphasise the fact that the over-pruning of such trees was to be deprecated, and especially that the shoots of the previous year's growth should not be pruned back or shortened at all. I then had in my mind the shoots more particularly which emanate from the points of the leading branches of the trees. All these should be left intact where there is any chance for light and air to get at them. It sometimes happens, more especially with young vigorous trees, that many of these shoots (of the previous year's growth) will spring from the base of a branch which had been cut back in the body of the tree the year before. Obviously, if these were allowed to grow unchecked, the body of the tree would soon be choked with dense and useless growth. At the same time, these growths are not always an unmitigated evil, for they are sometimes the means of supplying young shoots in the body of a tree where they are badly wanted to fill up a gap; but where they are not so wanted, they should be cut back as near the branch from which they emanate as possible, so as to make it difficult for others to start the following year from the same base.

Having dealt with the staking, protection and pruning of the young trees, I will now venture to suggest the best method of annual culture to adopt for their future welfare. The word "culture" in relation to the growth of orchard trees will sound foreign to the ears of old planters of orchards in association with farms and other country dwellings, for the idea that fruit trees required or were benefited by cultural attention after planting seldom entered their thoughts, and certainly the trees seldom received any practical help in this way; hence the half-starved and stunted trees so generally met with in such orchards, and the poor and valueless condition of the fruit grown. I should like to make it clear that, however powerful a factor good culture may be in promoting the growth and in securing the increased fertility of orchard fruit trees, it will not do miracles. For instance, it would be useless to try and bring back to a healthy and fruitful condition trees that by years of neglect had become bark-bound, stunted and feeble, whether young or old. It would be far better in such cases to grub up such trees and replant with vigorous, healthy young specimens, so that a good start could be made under the best conditions of culture.

Presuming that an orchard or even a few standard trees of Apples, Pears, Plums and Cherries have been planted this autumn or winter, and that the conditions necessary to the after-success of the trees have been observed in planting, the first thing, in considering the matter of culture, we must be clear and emphatic about is that no grass is allowed to grow over the roots of the trees. If this is permitted it is fatal to the success of young fruit trees. At planting time the root of a young standard tree will not extend beyond 2 feet from its stem, and, therefore, the grass should be cleared away from the surface of the soil round the tree to the extent of 2½ feet at least distant from its stem, as the new roots formed during summer will have extended that far before the growing season is over. The next thing we have to do is to place a layer, 4 inches deep, of well-decayed stable or cow-yard manure over the exposed surface of the soil round the trees. This is a very simple and inexpensive matter, and possibly by many amateurs the work will be carried out as directed in a mechanical sort of way without further thought as to the why or the wherefore of the reason for it. To other learners with a more enquiring turn

A BOX FOR CARRYING DAFFODILS TO SHOWS. (*See page 130.*)

of mind, an added interest would be given to the work were the reasons for its application shortly explained.

It is well known that every tree has its system of roots as well as of its branches. It is equally well known that the success of the former (and especially so in a fruit tree) depends to a very great extent on the health, quality and quantity of the latter. Whether by instinct or by some other wonderful power given to the roots of trees, they possess the faculty of soon finding out those conditions and quality of the soil which suit them best. If the surface of the soil becomes unduly hot and dry in summer, the roots, and especially the strong ones, will strike down into the moist subsoil, forming strong fibreless roots, which in turn will produce sturdy fruitless branches and, as a result, barren trees. The layer of manure, which is commonly called a mulch, will go a long way to prevent this. It conserves moisture in the soil in hot weather by preventing undue evaporation. It enriches the surface soil by the manurial constituents washed down by rain, making it a congenial medium for the fibrous surface roots of the trees to enormously increase in number, and it is on the strength, health and quantity of these roots that the fruitfulness and general well-doing of orchard and, for the matter of that, all other fruit trees depend.

It will generally be found by the end of May that most of the manure has been absorbed by the soil, leaving only the strawy part on the surface. The surface soil will now become so full of new and tender surface roots that there is a danger of many of them perishing unless means are taken to give them more surface material to root into, and I would advise that another mulch of manure and soil (half and half) should be added, of the same depth as before, about this time, clearing an inch or so of the loose surface soil and straw away before laying it down. The result of this treatment will be that when autumn arrives the stems of the trees will have swollen considerably, and most of the branches be of that moderate strength of growth so desirable in young trees, and many of them bristling with fruit-buds.

The treatment the second and consecutive years will be much the same in respect to surface root culture, excepting that, when laying the mulch down the second year early in October, 3 inches or 4 inches of the surface soil round the tree (the old mulch) should be taken away. This will probably entail the destruction of a few of the small surface roots, but this does not matter, as they will soon be replaced by others when the growing season comes round. Should the weather prove exceptionally dry the first summer after the trees are planted, they must have an occasional watering, as the roots have not yet taken proper hold of the soil. This will not be necessary after the first year. Later, when the trees start bearing heavy crops, a sprinkling of bone-meal should be lightly forked into the surface soil before the mulch is placed over. This will go a long way to support the trees in good health while carrying their crops of fruit, besides adding to the weight and quality of the fruit.

It is very seldom that root-pruning has to be resorted to when this system of culture is adopted. Its tendency is to throw the trees into fruit-bearing early, and once this condition is securely established, there need be no fear afterwards of a too luxuriant growth. Still, it sometimes happens in the growth of young fruit trees that root-pruning has to be resorted to in order to arrest undue vigour in some of the branches and to compel the formation of more fruit spurs and blossom. It is when the trees are about four or five years old that the necessity of root-pruning shows itself by the over-robustness of growth generally in the tree or in some of its main branches and by the absence of fruit-spurs, by which the branches should be well furnished at this age. The best method to adopt in root-pruning trees of this age is to carefully take them bodily out of the ground. The roots can then be easily examined and all the stronger ones cut back to within 2 feet of the stem of the tree, also slightly shortening the points of the longest thin roots. In cutting the roots of such trees it is important to bear in mind to have the cut face of the roots on the upper side, not the lower one, for the new roots which will in time issue from the cut part will then show a tendency to grow upwards instead of downwards. Immediately the pruning is finished, which need not take many minutes, have the tree replanted, staked and mulched. The best time to root-prune is as soon as the leaves have fallen.

OWEN THOMAS.

(To be continued.)

CROCUS AUREUS VAR. LACTEUS. (*See page 129.*)

COLOURED PLATE

PLATE 1395.

TUBEROUS-ROOTED BEGONIAS.

IT is questionable if forty years or so ago, when the then newly introduced species of Begonia were being distributed, any one was prepared for the important position that their progeny would in time occupy in gardens. In those days Zonal Pelargoniums were used in immense numbers for bedding purposes, but now their place has been to a great extent taken by tuberous Begonias; indeed, in some gardens they have almost ousted the Pelargonium as a bedding plant.

Varied as are the tuberous Begonias of to-day in colour, size, shape, habit and other particulars, they have sprung from comparatively few species, and the creation of such a beautiful class of plants as we now possess stands forth as a monument to the skill and perseverance of the different hybridists who have taken these plants in hand. Seven species in all have played a part in the production of the modern Begonia, the five principally employed being all introduced by Messrs. Veitch. Travelling in South America for the Chelsea firm, Richard Pearce sent home Begonia boliviensis in 1865. This was first exhibited at the International Horticultural Show in 1867, when it attracted a large share of attention. The flowers of this are drooping and the scarlet petals long and narrow, the whole plant somewhat suggesting the variety worthiana, still popular in many places as a bedding plant.

B. Pearcei, named in honour of its discoverer, was next introduced by Pearce. In this the flowers are yellow, and the velvety leaves are beautifully veined with a lighter tint. From a foliage point of view this is the most handsome of all, and traces of its ornamental leafage may to a greater or less extent be observed in many of the yellow-flowered forms of to-day.

B. Veitchii, a species with stout, roundish leaves and a sturdy stem supporting the bright red flowers, was also sent home by Pearce. The flowers of this are more circular in outline than those of the others, and its influence may be traced in the large round flowers now so general.

B. rosæflora, somewhat in the same way, but with paler-coloured blossoms, is stated in "Hortus Veitchii" to be one of the most active progenitors of the garden tuberous Begonias of to-day.

B. Davisii, named in honour of a later Veitchian collector, who sent it home in 1875, was distributed a few years later. The flowers of this are of a rich orange scarlet colour and borne in a more erect manner than the others. By constant intercrossing this has become a permanent feature of modern Begonias.

The two other species above referred to are B. Clarkei and B. cinnabarina, but they were not much used for hybridising.

These Begonias were not long introduced before the first hybrid, Sedenii, was raised at the Chelsea nurseries. Well I remember the excitement this caused when first it made its appearance, and scarcely less was the interest in the variety Chelsonii. After that new hybrid forms came thick and fast, and every year saw some of the older kinds superseded by newer ones. The first white-flowered variety originated from Begonia rosæflora, whose blossoms are variable in colour.

By continual selection a white flower was at last obtained, and was distributed in 1878 under the name of Queen of Whites. Strange to say, Davis sent home a white-flowered form of Begonia roseæflora which proved identical with this white-flowered variety obtained artificially.

The first double-flowered Begonia of the tuberous section was Lemoinei, distributed by M. Lemoine of Nancy in 1876, followed by the much superior Gloire de Nancy from the same raiser. After this we had several Continental-raised novelties with double flowers, and our own raisers, notably Messrs. Laing of Forest Hill and Mr. Cannell of Swanley, took them in hand and distributed many fine forms. These double flowers vary considerably in their conformation, some of them in shape suggesting a Rose, others a Camellia, while some are quite like a Water Lily. Again, the large guard petals of many varieties with the double centre go to form a Hollyhock-like flower. Lastly, some double flowers are composed of a rounded head of small rosettes, which in conformation suggest a flower-head of a double Pelargonium.

While varieties with erect or semi-erect flowers are in a general way the more popular, a class in habit directly opposed thereto has of late attracted attention. These varieties are of a loose, semi-pendulous character, and are therefore seen at their best when grown in suspended baskets. Treated in this way, Begonias, whose habit detracts from their value as pot plants, produce a charming effect in the greenhouse or conservatory. Lastly, in enumerating the desirable qualities of the tuberous Begonia, it may be noted that, in conjunction with B. socotrana, it has given us a race of beautiful winter-flowering hybrids.

Propagation.—At one time Begonias were principally increased by cuttings, and this practice is still followed for the propagation of the different named varieties, but still immense numbers are raised from seed. The different Begonia specialists take very great pains in saving only from the best forms, so that seed from a good source can now be depended upon to yield many beautiful forms. The home saving of seed, too, is a very easy matter and the raising of young plants therefrom most interesting.

The saving of seed from double-flowered varieties is often a puzzle to the uninitiated, but is done in the following manner. Even in the case of double-flowered Begonias the female flowers are single, so that the actual fertilisation offers no difficulty whatever. It is only necessary to take a small camel's-hair brush, and with it transfer the dust-like pollen from the male flowers to the velvet-like stigma of the female. This latter will not be ready for the reception of the pollen till it has been expanded for two or three days. The best time to carry out this operation is about nine o'clock or ten o'clock in the morning, especially if the day is bright, as the sunshine will by that time have set the pollen free. In the case of double Begonias there is a difficulty in obtaining pollen. A thoroughly double male flower produces as a rule no pollen whatever, hence it will be necessary to fall back upon semi-double flowers, in which case the more nearly they approach the true double, consistent with their yielding pollen, the better. Sometimes the very best double varieties will, if starved, produce a few semi-double blooms with a little pollen. When this happens it is particularly valuable to the hybridiser. Cultural details for tuberous Begonias have been so often given in THE GARDEN that it will not be necessary to refer further to them here.

The handsome double-flowered variety illustrated on the front cover of this issue is named after Mr. Wm. Marshall, V.M.H., chairman of the floral committee of the Royal Horticultural Society. It was raised and sent out by Messrs. T. S. Ware, Limited, of Feltham, Middlesex, a firm which has done a great deal in raising new varieties of the tuberous Begonia. H. P.

THE GREENHOUSE.

CAPSICUMS.

CAPSICUMS and Chillies are both ornamental and useful. There are not many kinds of pod or berry bearing plants suitable for growing in pots. When ripe the pods are brilliant red in colour and sometimes many inches in length. Others are berry-shaped and of a clear yellow colour. The following are suitable for pots: Long Red; Long Yellow (as shown in the accompanying illustration); Prince of Wales, bright yellow, almost round; Princess of Wales, pale or lemon yellow in colour, berries round; Ruby King, a very large-fruited variety, red pods borne very freely on well-grown plants; Bell, or Bull's Nose, an attractive fruit; Golden Dawn, yellow; and Little Gem, which bears bright scarlet berries, the plants being very dwarf, rarely growing to a height of 1 foot in pots. It is a capital sort for the front part of the greenhouse or conservatory stages. The plants may be grown in the open borders in the Southern and Midland Counties, especially where sheltered, sunny positions are available. In the green state the fruits as grown on outdoor plants are useful for pickling and salads. All plants intended to be grown in the open air must be strong and well hardened by the end of May, so that they may be in proper condition for planting out early in June.

A GROUP OF CAPSICUMS FOR THE GREENHOUSE.

Sowing the Seeds.—The seeds should be sown during February and March. If there is unlimited artificial heat, sow them before February is out; but where artificial heat is scarce, and also not strong, then sow about the middle of March. At this time, of course, the sun is becoming more powerful and penetrating, so that the soil or rooting medium is greatly warmed every day and the seeds germinate strongly. The resultant plants grow freely and sturdily without check, that is if ordinary care be taken of them. The soil for the seedlings must consist of rich loam and sweet leaf-soil in equal proportions, with sand to render it porous, and some well-rotted manure placed on the crocks for the benefit of the seedlings before they are transplanted, as it is important that the basal leaves be retained in good condition.

As before stated, the seed pans or pots must be placed in warm quarters if the seeds are sown early. A hot-bed or a shelf in a warm glass structure is suitable. Later, or about the middle of March, a stage in a greenhouse may be utilised, but the sooner the seeds can be induced to germinate the better will the fruits colour. Water the soil before sowing the seeds, then cover the latter with dry soil and do not water. Place a loose sheet of glass on the pan and brown paper on the glass. If more water is required before the seedlings are well up, immerse the pan or pot in a vessel of tepid water, and in that way gradually moisten the soil upwards.

Pot Culture of the Plants.—Directly the seedlings are large enough—about 1 inch high—pot them singly in 2½-inch pots, using soil similar to that in which the seeds were sown, only now the well-decayed manure, after being rubbed through a fine-meshed sieve, must be freely mixed with the soil. The object of putting the seedlings in small pots at so early a stage of their growth is to avoid an unnecessary check, as would occur if they were first transplanted in pans or boxes.

The Treatment of Maturer Plants.—The repotting of the plants must be attended to until they are established in their fruiting pots—6-inch and 7-inch ones. When the pots are full of roots begin feeding by giving weak doses of clear soot-water, and then liquid manure. The leaves will soon assume a dark green colour. Throughout the summer months keep the plants in a cool frame, though they may be grown in the greenhouse, but it is best not to place them there long before the fruits turn colour for ripening. The plants shown in the illustration were grown by Mr. Gentle in The Gardens, Little Gaddesden, Berkhamsted, Herts. B.

A NOTE ON BOUVARDIAS.

MANY growers of these useful plants are about to start them into growth; indeed, some may already have done so where a good deal of

propagating has to be carried out. I have experienced, and doubtless others have also, the difficulty of getting certain plants to "break" well, thus rendering the quantity and quality of the cuttings unsatisfactory. Here is a method disappointed growers may advantageously carry out. Take a few of the stubborn plants, shake all the soil from off their roots and cut them down to about 1 inch or 2 inches of their base. Mix up a compost of three parts silver sand and one part of Cocoanut fibre or very fine soil, well crock a pan or two (rather shallow pans), cover with moss or its equivalent, and then place in the plants, covering them slightly with the above mixture. Do not give much water, but keep up a genial, moist condition, and this, in the usual temperature of a forcing-pit or stove, will bring about the desired young growths from the base. C. T.

NOTES ON ORCHIDS.

DENDROBIUMS.

THIS is a large and popular genus of epiphytal Orchids, which contains plants varying in height from a few inches to 5 feet or 6 feet. They are distributed over a wide area, and the flowering period is extended over nearly the whole year if a collection is brought together, but the greatest quantity is produced in the spring, when we have the beautiful D. wardianum, aureum, crassinode, and nobile with its numerous varieties. It is this section that I intend to deal with now, and which includes the numerous hybrids derived from the intercrossing of the above-mentioned species. Among them we find Ainsworthii, Cybele, Wiganæ, Thwaitesæ, euosmum leucopterum, rubens, chessingtonense, Curtisii and a host of others of equal merit.

Where Dendrobiums are grown in quantity a house or division is set apart for their accommodation; but this is not always possible, neither is it essential, when a few only are cultivated. In the warm Orchid-house or plant-stove I have seen some fine specimens of the nobile type flowering profusely, which proves that they can be successfully grown among other plants if due regard is given to the resting season. While the plants are in active growth the temperature should fluctuate between 65° and 75° Fahr., the first-named figures being the rule when fire-heat is needed; but with solar warmth it can rise to 75° or even 85° Fahr., and no harm will accrue. A moist but buoyant atmosphere is necessary, and a little ventilation must be given whenever the weather permits the opening of the ventilators, and during the summer months an inch or so from the top lights will encourage sturdy growth and prevent the "black spot" disease which is sometimes seen in collections.

At present many of the Dendrobiums will be either in flower or pushing buds from the nodes of the pseudo-bulbs, while a few will have started into growth in addition to flowering, but water must be applied sparingly; all that is needed is sufficient to maintain the bulbs in a plump condition. After the blooms have faded and the new shoot is showing signs of fresh roots, any repotting or top-dressing may be done. To describe this I will first select a specimen needing a larger receptacle, which may either be an ordinary flower-pot or a pan with a wire handle attached for suspending it near the roof glass if the houses are lofty or stage room is scarce. Never overpot Dendrobiums; it is sufficient if the pot or pan will comfortably hold the roots, because, if these are few, it is safer to err on the side of under-potting, as a large bulk of soil takes a long time to dry when water has been given. Ample drainage must be provided, and the rooting medium consists of peat, Osmunda fibre and chopped sphagnum moss in equal parts, with a 7-inch potful of crushed crocks to every bushel.

Top-dressing is done when the surface soil has become sour but the plant is not in need of any extra root room. The soil is carefully picked out with a pointed stick and replaced with new compost. After being disturbed at the base, water is only required in small quantities for several weeks; but directly the roots are seen creeping to the edge of the pot, the amount can be gradually increased and kept moist till the pseudo-bulbs are fully matured. This is apparent by the terminal leaf, when the plants should be given more air and sunshine and slightly drier surroundings, but plenty of water at the root, or they will suffer. SENTINEL.

A GOOD CROP OF PEA CARTER'S DAISY IN THE GARDENS, LITTLE GADDESDEN, BERKHAMSTED.

THE KITCHEN GARDEN

A USEFUL EARLY BROCCOLI FOR AMATEURS.

THE splendid collection of Broccoli Sutton's Superb Early White staged by Messrs. Sutton and Sons at the meeting of the Royal Horticultural Society on February 22 was interesting to many who have for some time past been purchasing imported heads. Here were some very perfect solid heads just the size for table and of excellent quality. Gardeners as a rule know the value of these early Broccoli; and my advice, therefore, more concerns the amateur, who is often at a loss to select the best variety for a winter supply. As the season for sowing this vegetable will soon be here, it may be well to give a few particulars concerning this excellent variety.

I always found early May sowings soon enough in the South and two or three weeks earlier in the North. The chief points are to get strong, sturdy plants and give them an open position and ample room. Plants do much better when planted from the seed-bed before they get drawn or weak. It is far better to sow a little later and plant out quickly than to allow them to remain for a long time in the seed-bed. If necessary, prick them out in rows and plant when the ground is available.

THE GARDEN SWEDE IN SPRING.

THE garden Swede is a most useful vegetable from March till May, and its value at that season should not be overlooked by amateurs, as shortly the Turnip will be poor and flavourless, whereas the above vegetable is excellent for the season named. On the Continent the Swede (I do not mean the ordinary common variety) is much more grown than in this country, and in cold countries it is much less affected by severe weather than the Turnip.

Garden Swedes are very distinct as regards their size, growth and quality from the ordinary field Swede. The yellow-fleshed form is, I consider, the best, though this may be merely a matter of taste, as the white-fleshed variety is very good. There is also a crimson-topped form, which is of splendid quality and keeps sound a long time. The growth of these varieties is very compact. They make a small, short top with clean roots of a good shape, and they are very solid and sweet-flavoured. When cooked they are most valuable for use as a vegetable from February till quite late in the spring, and should find a place in all gardens.

Another point which should not be overlooked is that they will stand severe weather, and on this account should be found most useful. Sown like Turnips, but given more room, they are a most useful vegetable, as they prolong the winter supply at a difficult season of the year. G. WYTHES.

PEA CARTER'S DAISY.

THIS excellent second early Pea has been grown in gardens in this country for some years, and at present shows no signs of deteriorating. For small gardens it is a splendid variety, as it only grows about 2 feet 6 inches high and crops over a long period. Added to this we have good-sized pods filled with Peas which possess an excellent flavour when cooked. The accompanying illustration represents a row of this variety in the gardens at Little Gaddesden, Berkhamsted, Herts, and is from a photograph kindly sent us by the head-gardener, Mr. A. G. Gentle. Mr. Gentle writes: "The Pea shown in the photograph is Carter's Daisy, which is a grand cropper, the pods being produced mostly in pairs. The illustration hardly does the row justice, as I had obtained three pickings from it before the photograph was taken. I think it is an excellent variety, and use it as a second early to follow Carter's Little Marvel."

THE FLOWER GARDEN.

THE FASCINATION OF THE CROCUS.

(Continued from page 113.)

SPRING CROCI.

IT is hard to define a spring Crocus unless we allow that title to any flowering after March 21. Even that would in most seasons include many that commenced throwing up blooms in January. So for the purposes of this paper I shall treat as vernal all those that begin flowering about the commencement of the New Year or during the following four months. Some few species will not quite fit in then, for Nature seems to delight in providing exceptions to all our rules and classifications, as, for instance, the four petals in Rosa sericea and Potentilla Tormentilla in the great five-petalled Order of Rosaceæ One of these independents among the Croci is Cambessedesii, a dainty little flower only found wild in Majorca and Minorca and, I believe, entirely lost in gardens until a few years ago, when a cousin of mine living is Spain kindly managed to get some collected for me. I have raised seedlings from these and already notice an increase of vigour in them. This is one of the smallest species, but the flowers are very beautiful, a delicate lilac in colour, but pale yellow externally and beautifully feathered with purple like a miniature Imperati, and they appear among the slender leaves from October till March.

A notable feature of the spring-flowering species is the large proportion that have yellow flowers or the three outer segments tinged with yellow on the outer surface. Of those at present in cultivation, for the one orange autumnal species, Scharojani, we have ten vernal ones with flowers entirely yellow on the inner surface, and seven others with the outer segments coloured externally buff, fawn or some shade more nearly approaching yellow; and of all these seventeen only two, viz., gargaricus and Olivieri, have so far shown no signs of brown or purple markings outside the outer segments. Ancyrensis, which was once described as never varying in this way, has given me seedlings with rich brown feathering and suffusion.

Several others typically lilac or white have produced bright yellow seedlings. Such are aërius and what I believe to be a form of reticulatus, while candidus var. sub-flavus has appeared freely among seedlings, from the typical white form, and must occur with it in its wild home in the Troad, for I found a sheet of specimens of this form from thence placed among the unrecognised forms at the end of the Croci in the herbarium at South Kensington.

Without observing them closely in their native haunts, it is perhaps unwise to try to account for this preference for golden tints in vernal sorts, so I will only suggest they may be more conspicuous among withered grass or stones, or even bare earth, and autumnal lilac shades form a greater contrast with browns and oranges of fallen leaves. I certainly think the external markings render the buds or closed flowers inconspicuous, after the manner of the stripes on the tiger and zebra, and I have frequently been struck by the brilliant show the same flowers make in a few minutes should the sunshine reach them. They are then ready to attract any passing bee; but in dull weather, when the bees would not be ready to visit them, they close and are invisible from a little distance. I do not know what enemies there are to guard against—birds or browsing goats, perhaps—and I much wish those who visit the haunts of wild Croci would make observations.

In our gardens the spring Croci can be divided into two groups, which we might call florists' forms and wild types. By far the largest number of the former belong to C. vernus. The wild plant varies greatly in colour and size. Even the variety albiflorus, which is the common alpine form and, so soon as the snow melts, sheets the mountain-side with another white covering, if closely examined shows endless variety in the absence or extent of the purple lines or large spots at the throat. It has been a garden favourite for at least 300 years, and the Dutch florists are still raising fresh seedling forms of it.

A marked feature of C. vernus is the general absence of yellow, even in its throat. I have two forms, though with a tendency to yellow on the outer segments. One came among a batch of seedlings from that beautifully striped form, Mme. Mina, and has a distinctly nankeen colour on the outside of young flowers. The other was found among some forced Mont Blanc, and if protected with a glass the buds are quite sulphur. Some seedlings from this last form have inherited this peculiarity, and possibly some day a yellow vernus may appear.

A form known as G. Maw is very remarkable. It is somewhat small and pure white, except for a brilliant orange fleshy tip to the three outer segments. It originated in an Irish garden, and the orange portion is supposed to be of a stigmatic nature. It is very strange that such a metamorphosis should have become constant in a plant, and as a curiosity this form is well worth a place in the garden.

Some of the most refined and beautiful forms of vernus are those in which the tips of the segments are either white or much paler than the ground colour, and the pigment has been concentrated just below the light patch in a double horse-shoe shaped mark. One known as leucorhynchus, raised by Mr. Richard Williams of Turnham Green, is a dainty flower of soft lavender shades with the apical markings very distinct, from which it has gained the English name of Pheasant's Feather. A good purple form with pure white tip is Leedsii, which scarcely differs from one sold as Dandy.

The self-coloured varieties please me most, and such old forms as Mont Blanc and purpureus grandiflorus are hard to beat for a pure white and a deep purple. L'Unique is of quite a rosy shade, and Beauty a soft mauve that is very effective in a good-sized clump.

The next most important of florists' Croci are the forms derived from aureus. Their origin is a mystery. The wild type is a rich orange form, and so far I have found but little variation in the hundreds of seedlings I have raised from it. At one time it must have been in a sportive mood, for the form known as the Dutch Crocus, the common yellow one of gardens, as well as the almost white form, C. a. lacteus (*see* p. 126), and the section known as sulphureus with its striped and pallid forms, have been inmates of our gardens so long that there is no record of their first appearance. I am not quite certain about lacteus, but all the other varieties mentioned above are quite sterile now and never produce seeds. The common yellow Dutch Crocus is one of the most interesting examples. I know of a plant having been propagated for centuries solely by offsets, and yet without any sign of deterioration.

The only other species that the florists have made much of is C. versicolor, a South European species with very variable flowers, the ground colour ranging from white to lilac with infinite variation in the featherings. It is the sole species in which the inner segments are sometimes as much feathered as the outer, and in which the inner surface of both is ever freely feathered. Two of its most distinct forms are obscuratus, lilac, feathered deep purple; and picturatus, with pure white ground and very rich crimson purple markings.

Waltham Cross. E. AUGUSTUS BOWLES.

(To be continued.)

THE BRYONY (BRYONIA DIOICA) IN A SCOTTISH GARDEN.

BRYONIA DIOICA AS A GARDEN PLANT.

MANY of our native plants are too much neglected, and there are whole districts where they might well be cultivated without being considered out of place in the garden, seeing that they are not to be found wild in the locality. Bryonia dioica is one of these, and the illustration gives an idea of one of the positions in which it can be employed with gain to the garden. It is covering a rough arch made of a portion of an old tree, which was cut down when the garden was formed some five years ago, although the arch was not erected until about three years ago.

Here this Bryony forms a highly attractive object with its pretty green leaves—pleasing both in form and tint—and its many little greenish white flowers, succeeded by scarlet berries. Not the least of the attractions of Bryonia dioica is invisible in the illustration, this being the spiral tendrils by which it clings to string or to small twigs. These are very beautiful, and their elasticity renders the plant capable of holding on against the efforts of the strongest gales to dislodge it.

The Bryony is dicecious—that is, it produces its fruit on flowers of one sex, which must be pollinated by those of the other. It is herbaceous and dies to the ground annually, making long growths in a short time after appearing above ground. It is easily cultivated, preferring, I have learned from experience, a rather moist but well-drained soil. Plants can be obtained, but a cheap and ready means of raising this plant is by means of seeds. These are produced very freely in the berries, which ripen well with me, and they can be sown in spring in pots and the young plants put out in summer. Seeds are procurable from some seedsmen also.

Dumfries. S. ARNOTT.

DAFFODIL NOTES.

SHOWS.—The following is a list of Daffodil shows that are to be held this season. There are, in addition, a great many spring shows that have a very considerable-sized section devoted to this flower. Probably the officials of some of these may think that they should have been included in this list. Should this meet the eye of any officials of such societies, I would be glad if they would send me a copy of their schedule (addressed, Care of The Editor), and I will issue a supplementary list later on.

Brecon, at Brecon, April 26.
Byfleet, at Byfleet, April 20.
Cornwall, at Truro, April 12 and 13.
Devon, at Barnstaple, April 19 and 20
Falmouth, at Falmouth, April 21 and 22.
Glamorgan, at Bridgend, April 20.
Herefordshire, at Hereford, April 27.
Huntingdonshire, at Huntingdon, April 20.
Ipswich and East of England, at Ipswich, April 21.
Kent, Surrey and Sussex, at Tunbridge Wells, April 20.
Kingsbridge, at Kingsbridge, April 14.
Knighton, at Knighton, April 29.
Lincolnshire, at Spilsby, in the third week in April.
Midland, at Birmingham, April 28 and 29.
Newent, at Newent, April 21.
North Devon, at Bideford, March 17.
Presteign, at Presteign, April 27.
St. Keverne, at St. Keverne, about mid-March.

Several of these are of peculiar interest. Thus the Byfleet show is held in aid of a new church at West Byfleet. St. Keverne used to be a children's show, but it has been so successful that adult parishioners have had classes allocated to them. It was started in 1902 by Mr. R. Clayton, the head-master of the school. Last year there were about 300 exhibits. Falmouth, Newent, Herefordshire and Kingsbridge are new recruits, either this year or last. North Devon is an amateur society whose schedule is mainly confined to bulbs grown in vases or pots. The others are old stagers. The Midland show is famous for new seedlings. The management have done everything they can to promote these classes, and the response has always been most gratifying. Good things are also to be seen at Truro and Bridgend (Glamorgan Daffodil Society), and the Rev. G. P. Haydon usually has some of his seedlings at Tunbridge Wells. Brecon, under the presidency of Lord Glanusk, is a most flourishing local show with plenty of exhibitors, whose friendly rivalry is a very marked feature. Truro is probably without an equal with regard to the rich colouring of the cups. The warm, damp and somewhat cloudy atmosphere of Cornwall is just what these bright-coloured gentlemen like.

TWO GOOD VARIETIES FOR POTS.—The very favourable impression that I formed last year of Seagull for potwork in February has been amply borne out by my experience this season. It is floriferous, of a pleasing shape, and the white perianth, with the rich orange red of the cup, all combine to place it in the front rank. Candidly speaking, I consider it a better thing in pots than in the open, and this is saying a great deal. To give those who do not know it an idea of its shape and what it is like, I would say it is a Barri conspicuus, with white where the yellow is in that variety. Eyebright, which may be described as a Poet and yet not a Poet, is most effective with the brilliant red edge round its cup. It has a look of the old late Sweet Nancy (P. recurvus) in the way the perianth segments incurve. I have had no difficulty in having a fine pot in flower on February 27. It is so much brighter-looking than ornatus, and it does not go spidery like that variety. It is still expensive to use for this purpose. Last season it was priced at about 2s. 6d. a bulb. Time, however, will rectify this.

BULBS AFTER FORCING.—Any expensive varieties should be carefully *grown on* in pots after their flowering season is over until the leaves die down, when they may be shaken out of the soil and stored in the usual way, or else the pots put on their sides until planting-time. It is advisable to give them the protection of a cold frame until the worst of the frosts are over, but air must be admitted every hour that it is possible. On no account should these bulbs be grown in pots a second year following; they should have a year at least in the open. Two years would be better than one. JOSEPH JACOB.

SWEET PEA CHAT.

SOIL PREPARATION.—Within the coming three weeks a few odd millions of Sweet Pea seeds will be consigned to Mother Earth, and the earlier all the preliminary details in connection with the soil can be completed, the more will the prospects of success be enhanced. In strong loams and clays the laborious processes of trenching and manuring will probably have been carried out in the autumn, and the sound cultivator who saw a favourable opportunity in February will have dug over the soil again and left the weather to finish it off and give the smooth, even tilth that is desirable for such large seeds as Sweet Peas as well as for all smaller ones. In light, sandy soils, on the other hand, it is well within the bounds of possibility that the selected situation would be allowed to lie solid for the winter, and the thorough cultivating and manuring would not be done until as early in February as it was safe to go on the quarter. In this case the top would be left comparatively rough, and it will not have been convenient to break it down until the present time. Let there be no delay, and the grower may look comfortably forward to satisfactory results.

Taking one season with another, the seeds that are sown in the open garden in March or very early in April, according to the state of the soil and the weather, will germinate and grow into as fine plants and yield an equal number of perfect flowers as those from seeds sown out of doors, or in cold frames in the autumn, or in gentle heat indoors late in January or early in February. That under-glass sowing has decided advantages in certain directions none will dispute; but that it is imperative to success is very far from being the case. Unfortunately, many amateurs who sow with a view to garden decoration and cutting alone in the spring always put in about six times as many seeds as they ought to do, and aggravate the evil by neglect of thinning, the result being that the plants never thrive as well as they ought to do, and as a natural consequence do not produce flowers in quantity or in quality. Adopt the correct system of sowing thinly, thinning early and staking efficiently, and the blooms in July will be equal in practically every respect to those from plants that have had far more elaborate treatment and made infinitely greater demands upon the time of the cultivator. In the event of the seeds not yet having been ordered, there must be no further delay, or the disappointment, which is even now probable, will be certain to ensue, since all the leading specialists are running short.

METHODS OF SOWING.—Broadly speaking, there are only two systems open for adoption in the manner of sowing the seeds, and these are in clumps or rows, but it is not intended at this juncture to go into the merits or demerits of either; this can well be deferred until the next notes. What it is particularly desired to impress upon readers now is the absolute necessity of sowing in flat-bottomed drills instead of those cut in triangular form with the heel of a cutting hoe, and that the base on which the seeds will lie shall be made perfectly level, smooth and firm. To this end shallow trenches should be cut, and these will vary in width according as it is desired to sow in single or double lines. In the former event—and it is indisputably the better for Sweet Peas – a suitable width is 5 inches, there or thereabouts, and for double lines they ought to be quite 15 inches, and the seeds should be placed within about an inch of the edge on each side, so that there shall be an abundance of space in between the lines for the unobstructed passage of fresh air from the time the seedlings germinate until the plants finish.

No matter, however, what the method may be, thin seeding is essential to success. This year, it is true, some varieties are not germinating as freely as they ought to do and as they would do had they been harvested in a normally favourable season; but this is no reason why the seeds should be sown *à la* Mustard and Cress, which means just as thickly as they can be spread, even if they are not lying about six deep in the lines. Early thinning will do much; but it is unreasonable to expect that it will restore to perfect health and strength a seedling which has been seriously crippled from the outset. SPENCER.

NEMESIAS AND THEIR CULTURE.

THE Nemesia is one of the most charming annuals of recent introduction. The rich orange shades of the large-flowering variety are exquisite, while the profuse flowering of the smaller variety makes up for what is lacking in the size of its flowers. The illustration shows one of two beds having the large-flowered forms in the centre and edged with the small variety. Grown near the croquet lawn they remained effective right through the season and were much admired. No doubt the occasional waterings with weak liquid manure added to the freedom and continuity of the flowering.

Highgate, N. C. TURNER.

NARCISSUS BLACKWELL AND BOXES FOR DAFFODILS.

I READ with much interest the remarks of the Rev. J. Jacob *re* Narcissus Blackwell in THE GARDEN dated February 26. I have grown this variety for five or six years, and it has always been very satisfactory. I am sending you a photograph of some of my flowers, which may be of interest to you (*see* page 124). I am also sending you a photograph of a box I made last spring for carrying my Daffodils to a show ready set up. The slides are cut the shape of the vases, which hold them in their places and render them quite firm. The box holds fifteen vases at the top and fifteen at the bottom. It saves a lot of time in not having to arrange the flowers on arrival at a show, and the flowers are safer than if simply laid in a box. ALFRED A. HARROW.

Priestgate House, Darlington.

THE ROSE GARDEN.

PRUNING ROSES.

To be a really successful cultivator of Roses one must be ever observant of the small details. There is a deal of ignorance prevalent as to the correct method of pruning Roses owing to this lack of observation. We often miss the opportunities afforded of studying the details as to pruning which our large public gardens would afford, for if one inspects the plants when in bloom it will soon be apparent how to prune.

Hedgerows afford another excellent example as to how we should treat the very vigorous climbing kinds, for in the case of the wild Briars we find splendid semi-arching growths produced in the year 1908 that were studded all over last year with short laterals that yielded lovely trusses of bloom. Therefore, when we have to consider how to

Prune Plants Growing as Free Bushes of such a Rose as Crimson Rambler, we shall preserve the fine ripened growths of last year nearly their full length and cut back the small lateral shoots to two or three eyes from their base. This applies also to such Roses as Gloire de Dijon, William Allen Richardson, Bouquet d'Or and Mme. Alfred Carrière, where grown as isolated bushes or as standards; that is, retain the long ripened growths of last year nearly their full length and prune back the laterals pretty hard, the weakest to one or two eyes and the strongest to five or six eyes. With the

Multiflora Roses, represented by Crimson Rambler, there is a tendency to quickly form decrepit old wood. Whenever this appears to be the case, cut it out, but the best time to do this is in August. The

Wichuraiana Roses of the Dorothy Perkins race do not deteriorate so rapidly, hence their old wood can be preserved for some time; but the laterals springing from the old wood, if cut back to two or three eyes, produce far more superb trails of bloom than if left a good length. When these prodigious growers cannot be well spread out, then some of the oldest growths should be freely cut away, or they will choke and spoil the others. The first season it is best to cut back multiflora Roses to 2 feet, but the wichuraiana varieties may be left full length, unless they happen to be extra long, in which case I recommend cutting back to 5 feet. Without a doubt the

Hybrid Tea class is the most popular one to-day, and it will be concerning these that some amateurs will be wondering how to prune. Briefly explained, the Hybrid Teas may be divided into three groups—moderate growers, represented by White Lady and Mrs. W. J. Grant; medium growers, represented by Viscountess Folkestone and Mme. Ravary; and vigorous growers by Mme. Abel Chatenay, Grace Darling and La Tosca. The beginner, who has perhaps planted some Roses for the first time this season, may be in a quandary as to how he shall know which are moderate, medium or vigorous growers, as many of the plants when purchased look so much alike. In his case I would recommend a severe pruning of all the plants this first season, cutting them down to within 3 inches or 4 inches of their base. Do not be afraid that the plants will not bloom. If cut down to 1 inch there are still some fine basal buds that would soon start out. The second season will be a better guide. Then the

Moderate Growers will have their best-ripened growths cut back to four or six eyes and all soft shoots removed. As the plants age, old wood should be freely cut away to induce new shoots from the base. The

Medium Growers, if wanted for garden decoration, as undoubtedly they will be, should have the best well-hardened growths cut back to within six or eight eyes from their base. All dead wood and weak and soft shoots are best cut back quite to their base, and all shoots that cross each other should be cut away in such a manner that the centres of the plants are kept fairly open. In all cases when pruning cut to an outward-looking eye, and thus assist the bush or standard to make a symmetrical plant.

Vigorous Growers, such as Mme. Abel Chatenay, may have their best-ripened shoots retained a length of 12 inches to 15 inches, and even more if hard; and, if desired, these longer growths may be partially tied over to pegs secured in the ground. This enables the grower to obtain a larger quantity of bloom, as the dormant basal eyes are induced to break when the sap is checked by the tying over. Lateral shoots prune back to two or three eyes, and all weak and old growths discard. Hybrid Tea Roses of the type of Grüss an Teplitz, J. B. Clark, Gustave Regis and Billiard et Barré are really best treated as pillar Roses or pegging down their growths. Perhaps the pillar form is the most satisfactory. The growths are looped to Bamboo canes of about 5 feet to 6 feet in height, and instead of cutting back the ripened growths, just leave them alone and merely shorten back laterals. A good plan to adopt if a tall pillar is objected to is to place three canes together in the form of a tripod, then twine the growths around in a serpentine manner. This class of Rose used as dot plants among bush Roses has a nice effect and relieves the beds of formality. After flowering, the old growths are cut away and other new ones encouraged.

Tea Roses may be pruned much on the same plan as the Hybrid Teas. If required for exhibition, severe pruning is best, and this work should be deferred until the first week in April; whereas the Hybrid Teas and Hybrid Perpetuals may be pruned towards the middle and end of March, according to the locality. Where the frost has not damaged the growths of Tea Roses (and I think they have well escaped), Roses of the type of G. Nabonnand and Anna Olivier should be very sparsely pruned; indeed, merely thinning out the weak shoots is sufficient. I have seen plants practically unpruned of such sorts as Safrano growing into quite huge bushes; in fact, last season in Devonshire I had to prune some that were over 6 feet in height. The quality of the bloom is not much, so that if this be preferred to quantity I would advise cutting back last season's wood to good dormant eyes.

Hybrid Perpetuals may also be divided into three groups and pruned as recommended for Hybrid Teas. Moderate growers are represented by Victor Hugo, medium by Mme. Victor Verdier, and vigorous by Hugh Dickson.

Polyantha, Pompon or Fairy Roses may either be cut down hard each year, if required for edgings, or left unpruned, in which case they will make big round bushes some 3 feet to 4 feet high.

China or Monthly Roses should have some shoots cut down to the ground, others about half their length, and others left full length.

Bourbon Roses may be pruned as recommended for Hybrid Teas.

A BED OF HYBRID NEMESIAS IN A NORTH LONDON GARDEN.

HYBRID TEA ROSES AS HALF-STANDARDS.

This magnificent group contains several varieties that are of a short, stumpy growth. I refer to such as Mildred Grant, M. Paul Ledé, Le Progrès and White Lady, that make very lowly bushes, but when budded on half-standards they seem to succeed wonderfully well. When White Lady was first discovered as a sport from Lady Mary Fitzwilliam, it fell to my lot to bud the two or three buds obtainable, and I did so upon some short standard Briars. These two or three plants gave us quite a nice lot of "wood," from which the stock of this magnificent Rose was raised. Let anyone who has failed with some of these moderate growers try them on short standards, and they will be pleased with the result. I do not say they will make big, spreading heads, but they will be comparatively strong and will yield grand flowers.

That rather poor variety as a bush, Marquise Litta, makes a very good half-standard; so also does Mildred Grant. Other sorts of more vigorous growth, such as Joseph Hill, Mme. Ravary and Mme. Segond Weber, are really superb from standards, and if we would see them in the greatest phase of their beauty it must be from standard or half-standard Briar stocks. Personally, I prefer the half-standards from 1½ feet to 2½ feet in height. They are less liable to injury from gales, and one can view the plants better at this height. Tall stems are all very well for Mme. Hector Leuilliot, Grüss an Teplitz and Sarah Bernhardt, but for the majority of Hybrid Teas half-standards are best. There is a disposition on the part of some individuals to decry the value of standard Briars for Tea Roses. If they were exhibitors they would know the value of this stock to give them show blooms. Take, for instance, such a poor grower as Cleopatra. Who has ever cut a good bloom of it from a dwarf? But bud it on a half-standard and cut back hard, then well thin out the shoots, and we are rewarded with one or two superb examples.

Next season we shall no doubt see what a very fine thing the Lyon Rose is in standard form.

P.

GARDENING FOR BEGINNERS.

PROPAGATING THE LOBELIA.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—The continued wet weather experienced recently has kept work back in this department, hence no time must be lost in making sowings of Carrots, Onions, and early Peas, as advised last week, whenever the weather is at all suitable. A sowing of Lettuce may also be made outdoors. Choose a warm spot for the bed and, if the soil is of a retentive character, add some coarse sand or other lightening material to it. Scatter the seeds thinly and broadcast, then lightly rake over the soil, and as soon as dry enough tread it moderately firm. As soon as the plants are large enough to handle they will need to be carefully lifted from the seed-bed and transplanted in rows 12 inches or 15 inches apart, and from 8 inches to 10 inches asunder in the rows, according to the variety. One of the best Lettuces that I know of for summer use is Carter's Holborn Standard, a large, solid, crisp Cabbage variety that does not run to seed. Where a cold frame is available and the work has not already been done, a sowing of Cauliflowers and a small one of Brussels Sprouts for early work may be made in shallow boxes of rich soil. For ordinary purposes, however, especially in the South of England, I prefer to sow Brussels Sprouts in the open ground, and Cauliflowers may be raised in the same way with good results. In cold, late districts, however, Cauliflowers are undoubtedly best raised in a frame. Seed of both must be sown thinly and the seedlings given abundance of light and air from their earliest stages.

1.—PLANT OF LOBELIA IN EXCELLENT CONDITION FOR DIVIDING. NOTE THE STURDY CHARACTER OF THE RECENTLY DEVELOPED SHOOTS.

Flower Garden.—The present is a good time to give attention to climbers of various kinds which are used for covering walls. Undoubtedly the two most frequently employed for this purpose are the Virginian Creeper and Ivy. The former may have been pruned back in the autumn; but if the work was not done then, it should be completed now. Providing the plant has reached the limits of the space to be covered, all lateral or side shoots may be pruned back to within an inch of the old rods, unless, of course, any are required to replace shoots that may have died. The present is the best time of the whole year to cut back Ivy, as it will quickly sprout again and soon become clothed with new leaves. This also may be cut back to within a few inches of the wall. Any that is found pushing its way behind the water trough or piping should also be cut away, or much damage will eventually be done by the swelling stems. If neglected for a year or two Ivy becomes much overgrown and provides a good leverage for the wind, with the result that it is frequently dislodged from the wall. In speaking of climbers I would warn readers against cutting the side shoots of Cratægus Pyracantha back hard. It is these young shoots which produce the finest berries, and as many as possible without overcrowding should be tied in, cutting away some of the old wood to admit of this being done should such a course be necessary.

Greenhouse and Frames.—The chief work in this department now will be the pricking off of various seedlings, such as Tomatoes, Cucumbers, Asters, Zinnias and other plants to be used for bedding purposes. Of course, many of these bedding plants will not yet be forward enough for the work, and where late beds are desired some more seeds may yet be sown. Begonias and Gloxinias that were sown the end of January will be large enough for pricking off, and the work must on no account be delayed, else all previous labour will be lost. Chrysanthemums that were rooted singly in 2½-inch pots will now need moving on, and where they are well rooted they may safely go into pots 3 inches in diameter. The potting of all kinds of greenhouse plants that need it must also be seen to, as growth is now active and the roots will quickly make use of the new soil. Keep a sharp look-out for all kinds of insect pests, which become very active at this season, and fumigate at frequent intervals if any are noticed. Ventilation, watering and shading are other cultural details that must not be overlooked in this department at this season.

Fruit Garden.—As the buds of Gooseberries are now bursting in many localities, there is no longer any fear of them being destroyed by birds, and pruning of the bushes may be done at once. It should be remembered that fruits are borne on well-ripened shoots that were formed last year, and also on the short, older side shoots known as spurs. At one time the sytem of pruning adopted was to cut back all young growths to within 1 inch or 2 inches of their bases; but it has been found that finer fruits are obtained from these young shoots. Therefore we only cut off the soft, unripened ends of these, except in those cases where they nearly or quite touch the ground. Some varieties, such as Warrington, have a natural tendency to grow downwards, and the lower shoots will need cutting back severely to keep them free of the soil. Any shoots not wanted in the centre of the bushes should be entirely removed. When pruned it ought to be possible to pass the doubled fist freely between all the branches.

A. A.

PROPAGATING THE LOBELIA.

THE remarkable development in the cultivation of hardy flowers in more recent years has largely ousted from popular favour subjects of a less hardy kind, and on this account the Lobelia and other equally interesting half-hardy herbaceous perennials are less frequently seen in our English gardens.

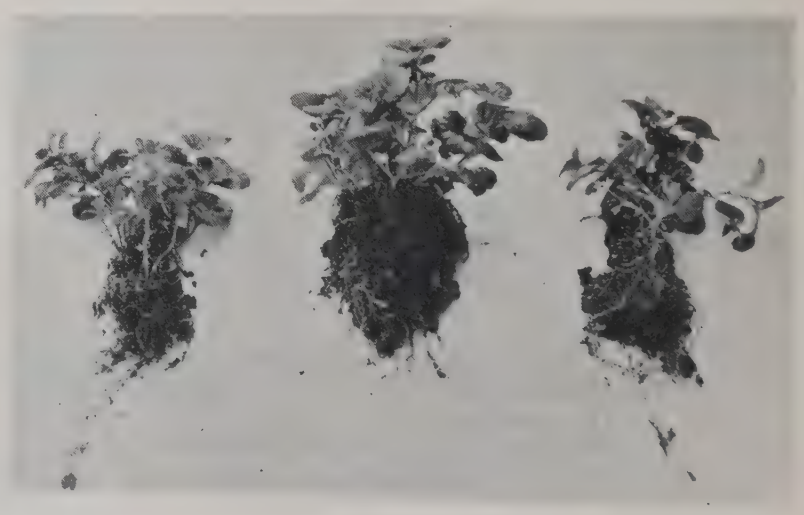
The Lobelia is represented by both hardy and half-hardy herbaceous perennials. The hardy species are most effective, both their flowers and foliage when the plants are carefully grouped making a fine show in the hardy flower garden. The half-hardy species, however, are quite distinct from the others and require altogether different treatment.

It is the common practice to cut back these stock plants in early August to within an inch or 2 inches of the soil. Immediately subsequent thereto a quantity of light, gritty, rich compost is worked well into the crown of the cut-back plants. Should the weather be dry at this time the plants must be given a good watering with the aid of a fine-rosed can. This watering should be repeated at intervals during the succeeding two or three weeks, at the conclusion of which period the plants will be represented by a mass of fresh young growths. Action should be taken immediately the plants are in this condition by lifting and pulling them apart, so that each piece shall be represented by a nice little tuft. These divided tufts should be planted close together in rather shallow boxes, or, if preferred, pots and pans may be utilised instead. For a time subsequent to this breaking up and replanting of the divided pieces they should be stood in a cool frame and lightly sprinkled with water. They will then become quickly established, after which they should be removed to a cool glass structure from which frost can be excluded.

In February and March these same plants may be placed in a greenhouse where a gentle heat can be obtained. Under no circumstances must they be excited into making growth of an attenuated character. At this season the plants should be represented by specimens similar to that shown in Fig. 1. A careful observation of the picture shows the tufted and healthy character of the growths and the well-rooted condition of the plant. When in this condition the successful propagation of the Lobelia is assured. Each of such specimens will make several excellent tufts in turn, or, if a large number of plants is required, individual shoots may be rooted with the greatest ease.

Fig. 2 shows the character of the little tufted pieces, how they are each made up of several small shoots, and also how well rooted each piece is. With such material beautiful plants could be developed in a few weeks in a genial temperature, and any ordinary heated glass structure can provide this. Fig. 3 portrays a sub-division of the original plant, and of these smaller divided pieces one old plant will yield a very large number.

Should the reader desire a large number of plants, he will find that boxes of a shallow description will answer his purpose better than anything else. Where only a few plants are required, 5-inch pots, such as that represented in Fig. 4, will answer his purpose better. Here the cuttings may be dibbled in rather closely



2.—DIVIDED TUFTS OF THE PLANT SEEN IN FIG. I. ONE STOCK PLANT SHOULD DIVIDE INTO SEVERAL SUCH PIECES. NOTE THE NUMBER OF SMALL GROWTHS AND THE PLENTIFUL SUPPLY OF ROOTS IN EACH PIECE.

together, and they will speedily root if a little bottom-heat is applied. The small tufts, as represented in Fig. 2, should be potted up individually in "thumb" pots; the small pots seen in Fig. 4 portrays this completed. As soon as it is

3.—SUB-DIVIDED GROWTHS OF THE ORIGINAL PLANT SEEN IN THE FIRST PICTURE. ONE OLD PLANT WILL DIVIDE INTO NUMEROUS ROOTED GROWTHS OF THIS DESCRIPTION, AND EACH PIECE WILL MAKE A PLANT BY JUNE NEXT.

seen that the young plants are growing steadily, they must be given cooler atmospheric conditions, or they will become drawn and weakly in consequence. When all danger of frost is past, there is no better place than the cold frame, where they should be protected from cold and cutting winds, and where, subsequently, the young plants should be gradually hardened off preparatory to planting them outdoors in June. A compost that answers the purpose of the Lobelia should be made up of equal parts of loam, leaf-mould and coarse silver sand passed through a sieve with a half-inch mesh and well mixed.

Good varieties of bedding Lobelia are: Emperor William, dark blue, one of the best; Kathleen Mallard, a double-flowered form of the first-mentioned; Mrs. Clibran, bright blue, white eye; Oxford Blue, dark blue, with white eye; Snowball, a beautiful snow white dwarf variety; Albatross, a fine white having a semi-trailing habit; Gracilis Improved, light blue, with white eye, good trailing habit; and Crystal Palace compacta, blue, with dark foliage and dwarf, compact habit. D. B. C.

SPRING TREATMENT OF PEACH TREES.

When the flowers are fully developed on a Peach tree the latter looks very pretty indeed. Peaches are in the forefront of fruit trees that develop their flowers early in the spring; even trees growing outside and trained to walls come into blossom very early. Of course, the flowers are exposed to danger; they may be ruined by frosts, especially if they are wet when the frosts occur. Protection must be afforded. Scrim canvas and light mats, as well as herring-nets doubled, form suitable material for protecting the blossom. The materials, though, cost a small sum for each tree, and those cultivators who can procure light, fan-shaped branches from Fir trees may make good use of them in warding off frost. I have used the branches largely and with great success. Branches about 2 feet across are the best, and they should be nailed to the wall in rows horizontally and with a space of 3 feet between the rows; thus three rows will suffice for a wall 9 feet high. The stem of the branch is fixed uppermost, and if the spreading branch is held at an angle of about 45° by means of a forked stick placed between it and the wall, the blossoms for quite 3 feet below will be safe from seasonable frosts. Plenty of air and light must reach the flowers.

Thinning Out the Flowers.—In glass structures where the shoots are thickly studded with blossoms it is a wise plan to remove a few of the latter from the wall side of the shoot. Such flowers, if they set well, would have to be removed, as they are badly placed. Their removal will result in added strength to the others, finer fruits forming in consequence.

Setting the Fruits.—The branches should be lightly tapped at midday when the pollen is dry. A camel's-hair brush may also be used or a rabbit's tail tied to the end of a stick. By gently touching each flower the pollen will be distributed. I am also in favour of syringing the trees at noon when the sun is shining brightly on them; it is a good and an effective way of dealing with many trees in a short time.

Temperature and Ventilation.—The hot-water pipes must be warmed on dull days, and from the middle of the afternoon until the sun rises the following morning in the case of heated houses during the time the trees are in bloom. When the weather is favourable the top and front ventilators should be opened fairly wide; in unheated structures also. Do not attempt to force the growth at this stage, and when the young shoots are about half an inch long commence to remove a few from every shoot, leaving one at the base and two others on a shoot 18 inches long. This is termed disbudding.

HOW TO GROW CUCUMBERS IN A FRAME.

It is much easier to grow Cucumbers in a frame during the months of June, July and August than in March, April and May. I daresay many readers of The Garden have noticed how quickly Cucumber plants turn yellow in the leaf and assume a sickly appearance generally as the month of September wanes. Even comparatively young plants do so at that season when grown in frames. The cause of this is the lower temperature.

It is the cold weather in springtime that must be guarded against. The inexperienced cultivator should well prepare the hot-bed material so that a steady heat may be maintained for a long time. The bed ought to be made up of littery manure and leaves gathered from Oak and Beech trees last autumn in equal proportions, or at least nearly as many leaves as manure. The latter must be first laid out for a few days, and be turned over several times to allow the rank steam and gas to escape; result—the manure will heat more steadily and be sweeter. The hot-bed must be nearly 2 feet wider each way than the frame to be placed on it. Mix the manure and leaves thoroughly, make up the bed lightly, and then allow the material to settle down. The height of the newly constructed bed should be 5 feet; it will settle down to half that height.

The greater bulk of the compost must be placed in the centre of the frame; a depth of 1 foot there and 6 inches near the sides will do nicely. Fibrous loam and leaf-soil in equal proportions form a suitable compost. Put out the young plants near the centre of the bed in the frame. Be sure a very small opening is left at the top of the glass lights to permit of the escape of any excess of rank steam arising from the hot-bed. Syringing will not be necessary nor advisable for several weeks. Coverings must be put on the lights every night, and new linings given to the bed to keep up the internal temperature. Shamrock.

THE TOWN GARDEN.

Bulbous Plants in Art Bowls.—All bulbous-rooted plants now growing in prepared moss fibre in art bowls should receive ample supplies of moisture, without which it will be impossible for the bulbs to produce the best results. To say so much without the least qualification is simply to leave the amateur in such matters very much "as you were," as the military instructor would say. The whole subject, of course, resolves itself into what is "ample," and this is the point I must endeavour to make clear. If we grow Hyacinth bulbs in water in glasses, we do not enquire how much they want. They take just as much as they like, the water being there the whole time. But in growing the same thing in soil the amateur often starves the growth for lack of moisture, the same thing not infrequently happening when the bulbs are grown in fibre. Now, in the case of the latter method the vessel is water-tight, and the only thing to be avoided is that degree of stagnation which is the outcome of excessive supplies. Excess, however, is hardly likely to ensue in the case of the Hyacinth or any of the Narcissi, more particularly when these are in free growth; hence at such times the fibre should be of sponge-like wetness, so wet, indeed, that it may be wrung out by the pressure of he hand.

How Often to Apply Moisture?—That is always the difficult point, and though a tantalising question generally, because of the practical impossibility of a clear answer being forthcoming, it is not impossible for the groups I have named. Hence, in reply to "How often to apply moisture?" I am going to say "Once a week," and then to saturation point and nothing less. It may be done by dipping or in any other way the operator pleases, but do not neglect it if you value the finest flowers and trusses. Under this treatment there will always be a modicum of water at the base of the bowl, and where this is so the plant will not be likely to suffer. For such plants as Crocuses and Tulips a less amount of water will suffice, though even with these there should not be the least approach to dryness of the material. Lily of the Valley and Freesias delight in free supplies of moisture at the roots, and both are most amenable to this simple yet very desirable and interesting method of plant cultivation.

4.—THE LARGER POT IS FILLED WITH INDIVIDUAL GROWTHS, SUCH AS THOSE REPRESENTED IN FIG. 3. THEY MAY ALSO BE INSERTED IN BOXES IF PREFERRED. THE SMALLER POT CONTAINS ONE LITTLE TUFT LIKE THOSE SEEN IN FIG. 2.

Planting Gladioli.—It is now a good time to plant all the forms of these serviceable late summer-flowering subjects, and with the ground well trenched and enriched, the corms, *i.e.*, the bulbs, may be got in at once. The group in question presents few, if any, difficulties to the planter, who should see to it, however, that the roots are not nearer than 4 inches to the surface.

The Gladiolus in all its forms prefers a good loamy soil, but is not averse to more holding ones if these are well drained. Where the drainage is either a matter of doubt or the ground in times of a heavy rainfall liable to become waterlogged, it will assist matters if much sand is used to bed them in. There are now several distinct types of these flowers, and a set of each or several of them afford a long season of flowering. The early summer-flowering section is followed by the Kelwayii group, and apart from the old brenchleyensis there are others known as Childsii and Lemoinei, while the named hybrids of gandavensis or the unnamed seedlings of the same set are of as much value as of yore. Being of erect growth and flowering from summer-time onwards to the autumn, it would be better to plant them in conjunction with Tufted Pansies or tuberous Begonias, where beds are wholly devoted to them.

PRIMULA SINENSIS STELLATA.—For the cool greenhouse there is no plant of easier cultivation than Primula sinensis in all its forms, though from the decorative point of view, whether for the greenhouse or the sitting-room, none surpasses the elegant and free-flowering forms of P. s. stellata. I therefore recommend that a sowing of the seeds be made at once, and, if obtained from a reliable source, they will not fail to please. These "Star Primulas," as they are popularly called, are obtainable in white, ruby, pale and deep blue and "Duchess" forms, all of which are delightful. E. H. JENKINS.

TREES AND SHRUBS.

SHRUBS FOR BORDERING PATHS.

THE dwarf Box (Buxus sempervirens var. suffruticosa), which is known under the common term of "Edging Box," is so useful for bordering paths in positions where a neat, low edging only can be permitted that it is now used almost entirely for bordering purposes, and it is not often that we find other subjects used to any great extent. For certain positions, such as kitchen garden paths, it is very difficult to suggest another shrub that could be used in its place to answer all the requirements, for very few shrubs will stand the necessary amount of clipping and keep in good condition year after year. There are, however, other places where a choice of subjects can be made and where a freer-growing plant would be more appropriate, such as borders to shrubberies to take the place of a grass verge, borders to informal paths in pleasure grounds, or in positions beneath trees where grass would not thrive. In many places where a border a foot wide or so can be given between a shrubbery or path, it would be much better to plant it with a low-growing shrub rather than lay it with turf, for grass in such a place is generally difficult to keep in order and frequently proves unsatisfactory.

For a neat edging that will stand clipping, next to the Box there is no more satisfactory plant than Euonymus radicans. This can be cut up small and be planted in a similar manner to the Box. It starts away well and may be kept, by an annual clipping, to a height of 3 inches to 4 inches, with a width of the same dimensions. Either the green or silver leaved forms may be used. They are both excellent plants for informal borders beneath trees or for massing in positions where grass will not grow. The common Ivy is excellent for informal borders, both for the well-kept parts of a garden and for semi-wild places. Pegged to the ground in strips 6 inches to 9 inches wide, it may be kept to the latter width by an annual clipping in April or May. This clipping should be hard, however, so that a new start is made each year from what was practically the original base. The common or small-leaved Ivy of woods may be used, or the larger-leaved kind commonly termed "Irish Ivy." For special positions some of the finer garden varieties may be used, both green and variegated forms being of service.

The dwarf Heaths are excellent for the border, and such kinds as Erica carnea and its white variety, E. mediterranea hybrida, E. cinerea and E. mawiana are wonderfully effective when in blossom. They may all be kept neat by clipping them over as soon as the flowers fade. The dwarf-growing forms of the Ling (Calluna vulgaris) are as useful as the Heaths, the golden-leaved forms, aurea and cuprea, being very effective; while the dwarf, compact kinds, such as minima, Foxii and pygmæa, form dense, cushion-like masses only a few inches above the ground.

Quite a different type of plant is found in Vinca minor. This is, of course, of trailing growth, and is most suitable for a border of varying width and of a more or less informal character. Its evergreen foliage forms a carpet a few inches high, while the blue flowers during the flowering period have a charming effect. For a moist place the dwarf Bamboo (Arundinaria pygmæa) may be used. It grows about a foot high, and ought to be cut down to the ground each spring. As it spreads very rapidly it may be necessary to restrict its progress by chopping the underground stems through and forking the ends out occasionally. Hypericum calycinum may be requisitioned, especially for shady places, though it also does well when exposed to full sun. It is evergreen, and bears its large golden blossoms in profusion during late summer. It is improved by being cut to the ground every spring. H. moserianum may also be used, especially for prominent positions. It is a very ornamental kind.

Ruscus Hypoglossum, a near ally of the common Butcher's Broom, is a first-rate subject for an edging shrub. Its broad, green phyllodes keep a very good colour throughout the year, while it forms a dense, compact plant 6 inches to 9 inches high. A large stock may quickly be obtained by dividing an old plant into small pieces in spring, potting them up separately and placing them in a warm house until growth recommences. This is a much quicker method of obtaining a stock than by dividing and planting straight out into an open border. Where fragrance is taken into consideration, the dwarf Lavender may be planted, and, except when in flower, its height will not exceed 9 inches, while by pruning it may be kept lower. Several dwarf forms of Cytisus and Genista make effective borders. Some of the best are C. Ardoinii, C. Beanii, C. kewensis, C. decumbens, and Genista pilosa, G. dalmatica and G. sagittalis.

Those who are fond of Roses may use the various low-growing kinds, such as White Pet and Baby Dorothy; while others, Moss Roses and Penzance Briars in particular, may be pegged down to the ground. These, however, become rather untidy if the growing shoots are not kept pegged down or the strongest ones cut out. In very sunny positions and in places where the soil is poor, the Helianthemums or Rock Roses may be tried. They make an excellent carpet and flower profusely. On chalky ground the various dwarf Junipers come in handy, but they are only serviceable where a wide border can be allowed. Juniperus Sabina var. prostrata and J. littoralis are two useful kinds. As a rule, these informal border shrubs will last in good condition for many years, and the greatest amount of trouble they cause is cutting back occasionally when they are apt to encroach too much on the path.

RHODODENDRON GAUNTLETTII.

THIS is one of a group of Rhododendrons which have originated through the crossing of various garden varieties with R. griffithianum, or R. Aucklandii as it is sometimes called. It is a handsome Himalayan species, with white flowers 4½ inches across. In Messrs. Gauntlett's catalogue the variety under notice is described as producing immense trusses 9 inches to 12 inches tall, 8 inches through, and of a beautiful pale pink, changing to pure white. The buds before they expand are rich pink, quite unlike any other in colour, and especially attractive. It blooms freely when quite small, and has fine, healthy foliage. Like such varieties as Gill's Triumph, Beauty of Tremough and Glory of Penjerrick, it is more suited to the mild south-west than to more northern counties, and in cold places it ought to be grown in a cold greenhouse. As a rule, these large-flowered varieties, which possess the blood of Himalayan species, begin to grow early in spring, and the growths are frequently damaged by frosty nights. The flowers also open earlier than those of the R. catawbiense varieties, and in cold districts are apt to fall a prey to late frosts. D.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Scheme for herbaceous border (*Herbaceous*).—We do not think you require a "scheme" as usually understood, but that you will get all you require by planting a selection of showy, free-flowering plants for the purpose you name. You might select at will from the Michaelmas Daisies, Larkspurs, Phloxes, Pæonies, Pyrethrums, Irises, Trollius, Gaillardias, Columbines, Campanulas, Aubrietias, Creeping Phloxes, Megaseas and the like, or adopt one of the collections advertised by hardy plant dealers for the purpose. Many hardy plant firms make a speciality of this work and would make you up a collection suitable for the purpose, giving the height of the plants to guide you in their arrangement. Such collections may be had at very reasonable rates. We suggest that you write to some of the hardy plant dealers advertising in our columns for their catalogue of herbaceous plants as the most economical way of dealing with this matter.

Blue flowers for border (*N. Stratford Collins*).—We are not sure from your letter whether you require perennials only or if these and annuals are what is meant. Of perennials you cannot do better than employ some of the bluest of the Larkspurs or Delphiniums, of which D. Belladonna, D. Cantab, D. La France, D. formosum, D. chinense and others would make a fine set. Of other plants, Anchusa italica and its varieties Dropmore and Opal are excellent if a little tall. Gentiana acaulis is a low-growing plant, Dracocephalum is of prostrate habit, Hepaticas are low-growing and tufted, while of Tufted Pansies there is a delightful array in shades of blue and mauve. The Irises, too, possess many shades of blue, and, of course, there are others. Generally, however, the plants are of such variable habit of growth and time of flowering that a border of this kind requires to be arranged with some skill and knowledge of the subject. It is best when perennials and annuals are used together, as the former in bold groups constitute bays of convenient size for filling in with the dwarfer subjects of annual duration. The size of the

order, too, is important, and this you have not iven. Possibly you might prefer to write us gain giving a few more particulars of your ntentions or desires.

Manuring a herbaceous border (*Lucerne*). — We should certainly remove the ore strawy portion of the manure without rther delay, as the plants, if of good size hen planted, will now have become active t the root and will take care of themselves. Ve take it you have planted nothing of a ender nature, and of those you name the Kniphofias are the least hardy for your district. Even these are not likely to be harmed now f they have survived to the present time.

Violet leaves for inspection (*E. Smith*).—o insects or fungi were present to account for the pale pots at the edges of the Violet leaves. The trouble is robably due to some cultural error. Have the plants een kept too close, or is there any fresh manure in the ompost? Perhaps the plants have been sprayed with too trong a solution of a fungicide.

Anemone for name and treatment (*L. B.*). he Anemone is one of the pink-flowered forms of the rown Anemone, A. coronaria, and not infrequently called de Caen" Anemones from the quantity received early in he year from that district. The plants are freely repro-uced from seeds, though if you desired any one particular hade of colour this could be supplied at a very cheap rate y the hundred or thousand by any of the bulb merchants in ry roots, which would flower the spring after planting. hese plants require sandy soil of fair depth to grow in, nd, given a sheltered position—that is, one free from cold inds—they are quite easy to grow. Seedlings require wo years before flowering, and do not come wholly true to olour when so raised. If you require but a small number, our best plan will be to purchase the dry roots in the arly autumn, or you may get them even now, though of a educed quality because of the lateness of the time.

TREES AND SHRUBS.

Shrubs for sunless border (*P. H. Brooke*).—You will find the following a suitable election of shrubs for your border which gets very little sun: Berberis stenophylla, B. Aquifolium, Olearia Haastii, Ribes sanguineum, Forsythia suspensa, Spiræa arguta, S. Mrs. Anthony Waterer, Rhododendrons in variety, Hypericum calycinum, Cotoneaster buxifolia, Potentilla fruticosa and Diervilla Abel Carrière. For the fence you mention it would be a good plan to use a Rose such as Penzance Briar secured to the fence. This would prove more satisfactory than an ordinary shrub, and could be kept in bounds by cutting away the old wood and laying in the new periodically. It would also fit in with the surroundings fairly well.

Erica carnea (Winter Heath) and other plants (*J. H. L.*).—The Heaths would do quite well in the depth of soil you name, and would receive little or no injury from the mortar rubble. It would, however, be a wise precaution, if you wish the Heaths long to remain in the position, to add a few inches more of peat while the opportunity is afforded. The best of the Acænas for your purpose would be A. microphylla. The plant grows freely and is a good carpeting subject, succeeding best in a warm and sunny spot in good soil. Rose Rubin would be a good variety for the purpose named, and so, indeed, would any of the rambler class such as Dorothy Perkins, Philadelphia Rambler, Hiawatha and generally the wichuraianas. Other good Roses for your purpose should include Bardou Job, Refulgence, rubrifolia (beautiful always in wood), sericea, Pteracantha and Grüss an Teplitz.

Abnormal growth on branch of Red Horse Chestnut (*Constant Reader*).—The abnormal growth on the branch of Red Horse Chestnut which you send is due to the development of a large number of adventitious buds. This abnormal condition has possibly arisen through an injury to the bark in the first place, either from the puncture of an insect or some other cause. In some cases the abnormal development of buds is aggravated by the presence of minute insects or fungoid growths. The Red Horse Chestnut is very subject to the development of these buds, and in some instances quite large excrescences occur, usually on the trunk. Burrs on Chestnut are usually of a more or less open character and look something like a cancerous growth. Burrs on some trees, however, which have originated in much the same manner, do not suggest disease so readily. If cut across, the burrs on many trees are found to be beautifully marked, and are esteemed for furniture-making and the manufacture of fancy articles. Oak and Walnut burrs usually command a good price, and are frequently cut into veneer for inlaying purposes. Horse Chestnut burrs are, however, too soft to be put to similar uses. An abnormal development of adventitious buds, sometimes caused by fungus and at others by insects, is responsible for the curious bunches of twiggy growths often seen on Birch, Hornbeam and other trees commonly called "witches' brooms." As a rule, the harm caused by these growths constitutes a local injury only, but a Birch disease caused by a minute insect called Phytoptus rudis, a near relative of the Black Currant mite, results in serious injury by permanently crippling the twiggy branches and eventually killing the trees.

ROSE GARDEN.

Rose Mme. Wagram as a standard (*C. L. Cox*).—This grand Rose is shown to much advantage when grown in standard form, and we are surprised it is not seen more frequently. We think the streaks of white colouring at the base of the petals is only a peculiarity of the Rose and not attributable to any unhealthy circumstance. Doubtless feeding the trees with liquid manure in which soot is mixed will, if anything, heighten the beautiful satin pink colouring. You could also dig in now some good farmyard manure, giving each tree about two good shovelfuls. When pruning, if there are any yellowish-looking growths, cut these away, but retain the strong, healthy shoots a good length, say, from 9 inches to 10 inches long. Rather than prune too severely we should advise you to tie out the heads, by attaching strings to the growths and securing the strings to the stem of the tree. This makes a more spreading head and the lower eyes on the growths are induced to break out into new growths. Such strong growers as Mme. Wagram are often spoilt by too severely pruning them when grown as standards, but a thick bushy head should be avoided.

Roses planted from pots (*Weekly Reader*).—As the Hybrid Teas were planted last July, they have now doubtless obtained a good hold of the new soil. The best manner of treating these plants would have been to have tied over the long thin growths last summer. This would have induced growth from the base. But as this was not done, we would advise it being done now rather than prune the plants hard back. If growths are more than 2 feet long you could cut the extra away, and if any plant has made new growths from the base, then you should prune this in the usual manner, that is, moderately hard, say, to about 6 inches or 8 inches of the base of the shoots.

THE GREENHOUSE.

Palm leaf for inspection (*L. Bel, Belgium*).—The white substance on the portion of leaf you send is an insect pest known as scale. You are mistaken in thinking that it is not doing your plant harm. Though no harm may at present be apparent, the plant will eventually get into a bad condition if not attended to promptly. You must sponge the leaves carefully with soft soap water, using 2oz. of soft soap to a gallon of water. Use this solution in a tepid state, and repeat the sponging at frequent intervals until all the scale is removed.

Seedling Chinese Primulas not developing (*N. F. Kelly*).—The non-success attending your plants of Primula sinensis is owing to the fact that they have not been kept growing freely from the seedling stage to the present. You might with advantage have sown the seeds in April or May, for June is the latest time of all for sowing. The young plants should be pricked off as soon as possible, and when large enough potted singly into 3-inch pots, using for the purpose a compost made up of equal parts of loam and leaf-mould, with a good sprinkling of sand. A frame in a partially shaded position will suit the young plants much better than a greenhouse at that season. As soon as they have taken possession of the new soil, the plants should be shifted into 5-inch pots, using then two-thirds of loam to one-third of leaf-mould and enough sand to keep the soil well open. The plants must have plenty of air, and as these 5-inch pots get well furnished with roots they will be greatly benefited by a dose of weak liquid manure about once a week. After potting, ventilation, watering and shading when necessary are the principal points to ensure success in the general management of these Primulas.

Pelargonium leaves going wrong (*Mystery*).—No fungus is present. Perhaps the leaves have been affected by drip from wire, if they are trained to galvanised wire, or by fumigation. Frost will sometimes produce similar effects.

Leaves of Primula obconica turning brown (*N. F. Kelly*).—A puzzling case and one that leads us to ask whether it is possible that any of the fumes from the heating apparatus can find their way into the house? If so, several of your troubles may be accounted for in this way. The cultural details followed by you leave nothing to be desired, and from your letter we are quite unable to put our finger on any weak point. If not fumes from the boiler, there must be some local cause to account for the trouble. The Abol Insecticide, used according to the instructions, would do no harm.

KITCHEN GARDEN.

Celery failing (*Westbury*).—You seem to have found the cause of your Celery failing to grow so strong as usual in the spotting of the leafage from September onwards. It was just then and through October the plants should have been making their strongest growth; but if that growth was arrested by the injury done to the leaves, the matter is easily explained. The brown spots or blotches seen on the leaves are caused by a maggot, which can be found in every one of those blotches. It is caused by a fly known as the Celery fly, which deposits its egg on or in the leaves. That egg presently hatches and becomes a tiny maggot. It commences to eat the chlorophyll, or green colouring matter, in the leaf on which it is found. That is equivalent to anything sucking blood from an animal's body, and soon weakens the plant. When many of these maggots are found—and it is surprising how fast they increase—it is no wonder if the growth is checked, and because of the practical destruction of the leaves the plants soon cease to make any growth. If so soon as one of these spots were seen, no matter how small, it were hard pressed between the finger and thumb, many of the maggots could thus be killed and the injury would not spread. Of course, the best thing is to be able to keep off the fly altogether which deposits the eggs, if possible. One way to do that is, when the leaves are damp, to dust them freely with soot and lime. A more drastic way is to make up in a water-pot or pail a mixture by dissolving a pound weight of soft soap in a gallon of boiling water; then when dissolved add half a pint of paraffin and, with the aid of a syringe, work that up and down into an emulsion until it is thoroughly mixed. Then add six gallons of water and again well work it, after which it can be very gently sprayed or syringed over the plants. It is offensive to the flies and keeps them from the leaves.

Hot-bed for Cucumbers (*Notts*).—The hot-bed should be ready for the seed to be sown by the middle of March, and now is a good time to start preparing for it. We do not know the size of your frame, but we will take it for granted that it is a one-light frame. If it is of two or three, you will have to double or treble the material. Procure two cartloads of fresh horse-manure, the strawy part only. Throw the same into a conical heap 4 feet or 5 feet high in a position where it can be sheltered from rain. Let the heap stand for eight days to ferment; then open out by spreading the material thinly on the ground in order to let the fumes escape. In the course of a couple of hours put up again in a heap in the same way, and open again at the end of eight days. Sometimes the manure will be found dry at the second exposure; if so, it should be lightly sprinkled over with water while it is spread on the ground. Put up in a heap again, and it will be ready to make into a hot-bed at the end of a week. A sheltered and warm position facing south should be selected for the hot-bed, and it should be made 15 inches larger all round than the frame in order that later on, when the heat has subsided, linings of warm manure may be placed round the sides of the frame. As the manure is placed in position for forming the bed, each layer should be well trodden down as hard as possible, and the bed when finished should be at least 3 feet high. Place the frame on the bed as soon as it is finished, raising the back 6 inches higher than the front, so that the maximum of sunshine may be secured. Place some of the most rotten of the manure inside the frame, so as to bring it within 1 foot of the glass, and make it firm. On this manure

in the centre of the frame place two turves grass side downwards, each 2 feet long by 1 foot wide, forming a base for the soil of 2 feet square. On the turves place a hillock of soil the same size as the turves, 6 inches high in the centre and 3 inches high at the sides. After the bed has been prepared a week you may sow two seeds at the top of the hillock of soil 5 inches apart and 1½ inches deep. Leave a niche of air day and night on the frame for at least a fortnight after it has been placed on the bed in order to allow any foul gases to escape. The young plants will soon be above ground, and must have careful ventilation and protection at night from cold weather.

MISCELLANEOUS.

Apple shoots diseased (*Rev. W. F. S.*).—The shoots are attacked by American blight or woolly aphis. The tree should be well sprayed with a solution of 2lb. of caustic soda and ¾lb. of treacle in 10gal. of water. If the insects are noticed in the summer (and it is almost certain they will be), the spots they have attacked should be painted with methylated spirits, and this treatment persisted in.

Spiders for inspection (*Arachne*).—The spiders enclosed with the note are certainly not the cause of the trouble. They are "wolf" or "hunting" spiders, and, like all the true spiders in this country, subsist on insects and other small animals, and are to be regarded rather as friends than foes in the garden. From the description of the injury we should suspect surface caterpillars as being the cause, and would recommend that search should be made for them after dark.

Flower-bed: Fruit trees and other plants (*Anxious*).—If your desire is, as you say, to keep the bed as bright as possible throughout the year, the planting of Rose Frau Karl Druschki will not help you, and our advice would be to move them elsewhere without more ado. To keep the bed bright and neat throughout the year you cannot do better than plant a few good Daffodils, such as Emperor, Empress and Barri conspicuus, in October, putting them down 6 inches or 8 inches deep, and immediately carpet the surface of the bed with Tufted Pansies in white, yellow or pale mauve. This would give you a green surfaced bed all the winter, the Daffodils would come through and flower in April, and the Pansies would delight you in May and June. In the end of the last-named month lift the Pansies *only* and lay them in elsewhere or discard them to make room for tuberous Begonias, which would flower from July to October. In the latter month lightly dig the soil, after lifting the Begonias, and replant some fresh young plants of the Pansies to repeat the bed again. We have purposely selected those Daffodils which prefer heavy and wet soils, and these may remain for several years if at first well planted. The "Geraniums," which are Zonal Pelargoniums in reality, would not be suitable; nor do we think any selection of perennials would give you satisfaction in the position. As to the fruit trees and the kitchen garden, you appear to have started a little to soon, and the apparently water-logged condition of the soil will require to be remedied. As matters are now arranged, if the land falls in a northerly direction and there is a possibility of an outlet drain, it will be an easy matter to get the water away by a series of drains. For example, each of the trenches if formed at 2½ feet deep and, say, 1 foot wide, may be half filled with rough clinkers, and by doing the same thing on a more elaborate plan in the main pathway and connecting the trenches therewith, you have a good system of drainage for the whole, provided the water can get away. As you intend making paths of the temporary trenches, you would, of course, fill them with rough material, which would be most helpful in draining the whole. Getting the water out of the soil is obviously of the first importance, and if you make of the main path a big clinker drain 3 feet deep, carting away the surplus soil if need be, the little extra deep covering of soil now upon the fruit tree quarters will do but little harm, and all else will follow in due course.

Names of plants.—*C. B.*—1, Cestrum (Habrothamnus) elegans; 2, Semele androgyna; 3, Ficus repens variety; 4, Picea pungens.——*N. G. Hadden.*—1 and 2, Forms of Helleborus colchicus; 3, H. orientalis roseus; 4, H. guttatus. The Lent Lilies have been hybridised so freely that they are difficult to recognise; the forms are so numerous. H. Professor Schleicher is a very good white variety.

SOCIETIES.

READING GARDENERS' ASSOCIATION.

THERE was again a very large attendance at the fortnightly meeting in the Abbey Hall on Monday, February 21, the president, Mr. Alderman Parfitt, occupying the chair. The minutes of the last meeting having been read and confirmed, several new members were elected. The hon. secretary mentioned that a sad case, the almost simultaneous death at Chertsey of a gardener and his wife, leaving a family of six young children, had been brought to his notice by a member of the society. Although the case was outside the radius of the association, a collection was taken in the hall, resulting in £2 14s. being sent to the assistance of the children. The president then introduced the lecturer for the evening, Mr. John W. Tayleur, B.Sc., of the University College, Reading, his subject being "The Nature and Uses of Manure." Mr. Tayleur, in a very interesting discourse, gave most instructive details on the complex subject of manures, his remarks being most lucidly placed before his audience, and rendered, if possible, more clear by the excellent diagrams, &c., wherewith he illustrated his lecture. Dealing first with the essential elements without which plant-life cannot exist, Mr. Tayleur passed to the classes of artificial manures generally recognised, viz., nitrogenous, phosphatic, potash manures and calcium, referring afterwards to the several examples which occur under these headings and giving full particulars concerning different qualities and uses of the various manures. Advice was also given to those desirous of making their own mixtures, so that the best results might be obtained for the smallest outlay. At the conclusion of his lecture Mr. Tayleur was, on the proposition of the president, accorded a very hearty vote of thanks. Mr. H. C. Loader, head-gardener to M. H. F. Sutton, Esq., Erlegh Park, exhibited a nice group of Lachenalias, &c.; and Mr. W. Barnes, The Gardens, Bear Wood, staged some beautiful forced Rhubarb, Seakale and salads.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE committee of the Liverpool Auxiliary deserve great credit for their annual reunion held at the Bear's Paw on the 26th ult. The arrangements were admirable and the decorations ample and charming, thanks to the generous assistance of Messrs. R. P. Ker and Sons, Messrs. W. Webb and Sons, Mr. A. J. Young and members of the committee, who, by lending plants and choice cut flowers, added greatly to the beauty of the festival. Alderman F. Smith, J.P., deputy-chairman of the Liverpool Parks and Gardens Committee, presided over a large audience, and was well supported by representatives of the trade, parks and gardens and private gardeners. In the president's address reference was made to the success of the committee, in which they deserved every encouragement for the noble work they were doing on behalf of a praiseworthy, intelligent body of workers who, in many cases, were insufficiently paid for their skill. He dwelt with pride and pleasure on the advance made in their own parks and gardens due to their capable chief superintendent, Mr. J. J. Guttridge, and the superintendents of their various parks and horticultural displays throughout the city. A vote of thanks to the chairman, on the proposition of Mr. C. A. Young, chairman of the committee, seconded by Mr. J. J. Guttridge, was carried with enthusiasm. A similar compliment was paid to the artistes on the motion of Mr. R. G. Waterman, hon. secretary of the auxiliary.

THE BORDER HORTICULTURAL SOCIETY.

THE annual meeting of the members and subscribers to the Border Horticultural Society was held in the Court Room, Coldstream. In the absence of the chairman, Mr. William Logan, through illness, Baillie Carr presided over a good attendance. The treasurer (Mr. E. Walker) submitted a statement of the accounts, showing the society to be in a flourishing condition. The income amounted to £60, having doubled itself in four years, and the expenditure £52 7s., leaving a balance in favour of the society of £7 13s. The following were added as patrons: Lord Joicey, Mr. William H. Askew and Lady Hotham. At the forthcoming show, to be held in the Mechanics' Hall, Coldstream, on Saturday, September 3, there will be for competition eight silver cups, vases and medals, also good money prizes. Mrs. Black has given three prizes, £1 10s., £1 and 10s., for six dishes of fruit; and a silver cup and medal for a collection of vegetables, confined to amateurs, the cup to be won three times any time before becoming the absolute property of the winner. The following office-bearers were elected: President, Mr. William Logan; vice-president, ex-Provost Porteous; chaplain, the Rev. R. J. Paul; secretary and treasurer, Mr. E. Walker; auditors, Mr. Welsh and Mr. McNay; committee, Messrs. C. Baxter, John Napier, W. T. Landreth, G. Rutherford, J. Huntley, Baillie Carr, John Wilson, T. H. Robertson, W. C. Munro, R. Weatherston, T. Smart, G. Little and H. Whitelaw. A special vote of thanks was given to Mr. William T. Landreth for the presentation of two gross of vases to the society.

SCOTTISH PANSY AND VIOLA ASSOCIATION.

THE annual meeting of the above association was held in Glasgow recently, when there was a good attendance, presided over by Mr. R. S. Milne. The annual report was read by Mr. Smellie, and was of a favourable nature, the funds showing a credit balance of about £1, this, although small, being considered satisfactory. The following office-bearers were appointed, together with a staging committee: President, Mr. R. S. Milne; secretary and treasurer, Mr. R. S. Smellie; with judges for Pansies and Violas. Afterwards Mr. W. Cuthbertson gave an excellent lecture on "The Sweet Pea," illustrated with photographs and drawings. It was an admirable one, and received hearty commendation in the after-discussion. Mr. Cuthbertson was accorded a warm vote of thanks.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

THERE was a good attendance at the February meeting of this association, held in the British Workman, Broughty Ferry, and presided over by Mr. James Bethel, the president.

The lecturer of the evening was Mr. J. Carmichael, The Gardens, Rosely, Arbroath, the subject being "Cape Primroses, or Streptocarpuses." Mr. Carmichael discussed the subject in all its aspects, dealing with the several species and the comparison between these and our native Primroses. He then turned to the hybridisation, which has resulted in giving us the many beautiful flowers we now enjoy, referring to the work of Mr. William Watson, Messrs. Veitch and Sons and other hybridisers and raisers. This improvement, he considered, would make still further progress. Mr. Carmichael then gave details of the methods of saving and sowing the seeds, with the after-treatment of the seedlings, their potting, the soil required and the methods of growing the mature plants. The decorative effect they gave when grouped in bloom received consideration, and the best way of wintering the plants was referred to, together with the repotting and division in March—the best time. Pests were referred to, mealy bug being the most troublesome according to Mr. Carmichael's experience. Raising seedlings annually was recommended, and a short note on hybridising concluded an excellent lecture. A discussion followed, and Mr. Carmichael received the hearty thanks of the meeting.

SCOTTISH HORTICULTURAL ASSOCIATION.

AT the March meeting of the Scottish Horticultural Association held in the Goold Hall, St. Andrew Square, Edinburgh, on the evening of Tuesday, March 1, there was a good attendance. An award of merit was given to the Edinburgh Public Parks Department for an excellent seedling Clivia; to Mr. A. R. Henderson for Cœlogyne cristata; and to Mr. J. Scarlett for vegetables. A cultural certificate was given to Miss Burton, New Saughtonhall, for Calla æthiopica. The paper of the evening was given by Mr. James Moncur, West Garth, Colinton. Mr. Moncur's subject was a topical and suitable one, being that of "Weather Forecasts." In it he dealt with the whole subject in an exhaustive and interesting manner, laying stress upon the importance of the question with regard to horticulture, and pointing out the value of the forecasts in such countries as the United States, where the observations and forecasts are carried out on a thoroughly scientific basis. Mr. Moncur also recommended that our own Government should do more to further meteorological observations and weather forecasts. The lecturer was accorded a hearty vote of thanks.

BOURNEMOUTH GARDENERS' ASSOCIATION.

MISS C. AGNES ROOPER of Bournemouth, who takes a great deal of interest in the work of this association and in horticulture generally, gave a very interesting paper on "Some Experiments in Grafting by French and German Scientists" on March 1. Mr. Reeves, in the unavoidable absence of Miss Rooper, read the paper before a very good attendance of the members. Miss Rooper specially referred to the work of M. Daniels in France and Mr. Winkler in Germany. Both gentlemen, said Miss Rooper, had the same object in view, namely, to try whether it would be possible to produce hybrids by grafting and make their new qualities constant and distinctive; but up to the present time these Professors had not met with success. They used herbaceous plants for their experiments because they could see the results sooner and more easily than by taking longer-lived plants. M. Daniels experimented first on plants on their own roots. Taking the Bean (Phaseolus vulgaris), he sowed seeds in pots on a hot-bed; the seventh day after sowing he grafted the resultant seedlings on each other, and five days later repotted them, growing them under cloches and gradually hardening them off prior to planting them in their permanent quarters. The result, in comparison with plants from seeds sown at the same time and treated in the ordinary way under the same cultivation, was that the grafted plants, although they grew and flourished, were smaller in size than the others and their leaves were fewer and paler in colour.

A Lettuce was grafted on a Salsify, with the result that the flavour of the Lettuce was improved, but its size was less than that of a normal specimen. The operation was performed when the plants were only a few weeks old. A shoot of the common hedge Garlic was grafted on a young Cabbage, which M. Daniels cultivated for two years. At the end of this time the peculiar Onion-like smell of the grafted hedge Garlic had considerably diminished in strength and had become combined with the smell from the Cabbage, while the flavour was a very pleasant one. Results were given of experiments in grafting Potatoes and Tomatoes, Cauliflowers on Turnips, Tomatoes of different varieties, and wild Carrots on cultivated specimens.

Mr. Winkler, the German scientist, had a theory that to produce hybrids by grafting it was necessary to choose those plants which bud freely and produce side shoots easily, such as Poplars and Willows do when pollarded, and for this reason the cultivator has greater power to regulate his grafts than in plants which are not so easily induced to throw up these kinds of branches. Mr. Winkler took for his experiment a seedling of Solanum lycopersicum, which he grafted on the wild plant of our hedges, Solanum nigrum, or, as we call it, the Woody Nightshade. From this graft leaves were produced on the branches, which were partly those of the Tomato and partly those of the Woody Nightshade. The fruit resembled that of the latter in form and size, but it differed in being covered with white hairs, and the juice was of a lighter colour than in the normal fruit. Mr. Winkler further experimented by taking grafts from those produced by this combined plant and producing varieties through them, which all possessed distinctive qualities although partaking of the nature of the original two plants, some having leaves like the Tomato on one side of the stem and like those of the Woody Nightshade on the other. Also some had leaves half like a Tomato and half like those of the Woody Nightshade. Mr. Winkler succeeded, after many trials, in producing five distinct varieties, yet all resembling in some respects the parents; some were barren, others seeded freely. A good discussion followed the reading of the paper, and votes of thanks were passed very heartily to Miss Rooper, Mr. Reeves, and Mr. Pearce, who ably presided.

THE GARDEN.

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CONTENTS.

Raising Snowdrops from Seeds 137
Notes of the Week
Forthcoming events 138
Correspondence
Sweet Pea Etta Dyke with six flowers on a stem 139
Gardening of the Week
For the South and South Midlands .. 139
For the North and North Midlands .. 139
Kitchen Garden
Notes on vegetables 140
Some good Lettuces for summer use .. 140
Greenhouse
Lapagerias and their culture 141
Odontoglossum splendens 141
Flower Garden
Saxifraga Boydii and its varieties 141
The fascination of the Crocus 141
Lilium giganteum and its culture .. 142
Flower Garden
Daffodils and Tulips at Vincent Square 142
Planting Gladioli .. 143
Notospartium Carmichaeliæ 143
Gardening for Beginners
Garden work week by week.. 144
Increasing and growing the Lychnis .. 144
Repotting stove plants 145
The Town Garden .. 145
Rose Garden
Among the Roses .. 146
Four good pot Roses 146
Pure yellow Roses .. 146
New plants 146
Books 147
Answers to Correspondents
Flower garden 147
Greenhouse .. . 147
Rose garden 148
Fruit garden 148
Miscellaneous 148
Societies 148

ILLUSTRATIONS.

A spray of Sweet Pea Etta Dyke 139
A feathered seedling of Crocus chrysanthus.. 140
The rare Saxifraga Faldonside 141
The new Odontoglossum splendens 141
Lilium giganteum 142
Notospartium Carmichaeliæ in a Devon nursery .. 143
Increasing and growing the Lychnis 144, 145

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

RAISING SNOWDROPS FROM SEEDS.

IT is apparent to those who know anything of the advances made in raising new hardy bulbous flowers from seeds, either by simple selection or by hybridisation, that the field for improvement is practically unlimited in certain directions. In no class of bulbous plants is there a greater possibility of improvement than in the Snowdrops, and, although not known to the many, the actual gains secured by this means are far from inconsiderable. The late Mr. James Allen of Shepton Mallet was first so far as regards real progress, but others have worked successfully on the Snowdrops, and it is not too much to prophesy that before many years have elapsed the Snowdrop will take a still more prominent place in the garden than it has hitherto done. The creations of Mr. Allen are, many of them, very beautiful, and those of us who are their owners delight in their shapely flowers, generally much finer than the wildings, whether of Galanthus nivalis, our common Snowdrop, or of any other species.

The amateur who is fond of his flowers ought to consider if he cannot share in this work, which is simple enough, even if he follows seedling raising and selection alone and leaves to others the more troublesome work of hybridising. The great obstacle is the time which will elapse between the sowing of the seeds and the resulting plants coming into flower; but years slip on quickly and he will, in due course, reap the results of his labour, which is, after all, a pleasant and health-giving one.

Hybridising.—The process of hybridising is well known to most of the readers of The Garden. It is effected by placing the pollen from the anthers of one flower on the stigma of another, removing first the anthers from the flower it is desired to pollinate so as to prevent self-fertilisation and, preferably, by protecting the flower by gauze from being again pollinated by any other flower.

Selection.—This method is simpler and permits of securing satisfactory results if a good strain of Snowdrops is in the garden, especially if there is any variety among them, the common Snowdrop varying in a greater degree than many are aware of, as may be seen in some old park in which myriads of the flowers have been growing from time immemorial. The seeds should be saved from the tallest and most vigorous plants with the largest and finest flowers, and in course of years good results are certain to be achieved. Some of the seedlings of Mr. James Allen are excellent, and no one who knows them can rest satisfied with the inferior wildings of the poorer varieties of our common Snowdrop.

Seedlings from Other Snowdrops.—Not only the hybridiser, but also the seedling-raiser will require to keep in mind that the other species of Snowdrop than Galanthus nivalis should be cultivated in order to give the best results even from natural hybridisation, and the following may be named as good for beginning with, all being obtainable through the bulb dealers. One of the most useful in the past has been Galanthus plicatus, the Crimean Snowdrop, which in itself, or hybridised with other Snowdrops, especially with G. nivalis, has given us several beautiful flowers; then G. Imperati, classed by botanists as a form of nivalis, is most valuable; G. Ikariæ has not been much used, but it gives promise of good results. In G. Elwesii we have a well-known Snowdrop, but care should be taken to employ only the best forms, such as robustus, ochrospeilus, unguiculatus and Whittalli. There are some very inferior forms of Elwesii collected and sold. Latifolius does not promise well as a parent for a hardy plant with us, but the best forms of Fosteri will be worth using. Caucasicus also is worth trying; while from such out-of-the-way Snowdrops as lutescens, flavescens and viridiflorus, all varieties of the common one, some good results may come.

Saving the Seeds.—The plants must be carefully watched when the seed-vessels begin to show signs of being ready to open, and these should be gathered about this stage, placing them on a sheet of paper in a dry place so that the seeds will finally ripen and fall on the paper. They may then be allowed to lie for a week or fourteen days until they harden slightly, and can then be sown or may be put away with other seeds until the autumn or following spring. They ought, however, to be sown at once, as time is gained thereby.

Sowing.—Although the seeds may be sown in little drills in the open, they are best put into good boxes made of a durable material which will stand in the open for a term of years. Their duration is prolonged by nailing a piece of wood across each end to keep the bottom off the soil on which they are set. A number of holes should be bored in the bottom to permit of the water draining off, and the boxes ought to be well drained by crocks in the same way as we do with flower-pots. Use a free and gritty soil, and sow the seeds in drills about a quarter of an inch deep, covering them with fine sandy soil. The level of the soil should be about an inch below the top of the box. Place the boxes in a sheltered part of the garden, but in shade free from drip, and allow them to remain there until the bulbs are removed. Mr. Allen added a little soil

after the second year; but I prefer to add a little each season, so as to cover the bulbs all the better. The seedlings may remain until they have flowered; it will be about the fourth year before they do so, and some will be longer, as the seeds germinate irregularly. I prefer to remove only the plants which have flowered and to leave the others undisturbed, but all can be taken out at once when they are at rest.

The Seedlings in Flower.—The raiser must not be disappointed with the poor flowers which will be given at first, as the bulbs are weak and the flowers correspondingly small. It will be the third or even the fourth year after first flowering before they show their true character.

Points to Aim For.—Size of flower, substance of segment and beautiful form are all points to be desired. In addition there is stature, this being proportionate to the size of the flower, while the manner in which the flower is poised on the stalk is also a consideration. Two or more flowers on a stem some will seek for, and this may be attained, as Mr. Allen's Magnet often produces two flowers. Some will try for doubles, and new ones have already been raised, while others will aim at yellow markings, such as are yielded by flavescens and lutescens. Patience, care and intelligence will be certain to yield results of much importance. The Snowdrop may never equal the Daffodil in size, but it will be greatly improved, to the eventual gain of the hardy flower-lover. S. ARNOTT.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 22. — Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1—6 p.m.; the Fourth Masters Memorial Lecture, at three o'clock, on "The Adaptation of the Plant to the Soil," by Mr. A. D. Hall, M.A., F.R.S.

March 23.—Exhibition of Vegetables (Intensive Cultivation) at the Horticultural Hall, Vincent Square, Westminster. Lecture at 3 p.m., by Mr. E. O'Sullivan, on "Intensive Culture."

London manager of Messrs. Mackenzie and Moncur, Limited. Messrs. Mackenzie and Moncur, Limited, the well-known glass house builders and heating engineers, inform us that they have appointed Mr. W. E. Turnbull to succeed the late Mr. D. McCorquodale in the management of the business as carried on from 8, Camden Road, London, N.W. Mr. Turnbull has had over twenty-five years' experience, and clients and others can be sure that the care and attention devoted in the past to enquiries and the execution of orders will be continued in the future.

Garden superintendent of the Innes Horticultural Institution.—Mr. E. J. Allard, foreman of the outdoor departments of the Botanic Garden, Cambridge, has been appointed garden superintendent of this new institution, and entered upon his office on March 12. Mr. Allard has had extensive experience suited to the work. He commenced his career in gardening at Gore Court, and afterwards for some months he was with Messrs. Sander and Sons of St. Albans. From them, in 1895, he came to the Botanic Garden, Cambridge, as an improver-gardener, and after three years in the plant-houses went to Kew. From Kew he returned to the Cambridge Botanic Garden as foreman of the plant-houses, a position he occupied for over five years. He was then foreman of the outdoor departments for another five years, and he has done excellent service in both capacities. He has thus had a wide Cambridge experience, by which he is especially fitted for experimental as well as for other work, and for which there will no doubt be full scope in the development of an institution that must have important influence on British horticulture. In the Press Mr. Allard is well known for his plant photographs. His name is commemorated in two good hybrids he has raised—Nepenthes Allardii and Passiflora Allardii. In entering upon his new sphere he will carry the best wishes of all his friends.

Alpine Anemones.—On the corner of a large shrub bed at Hampton Court Palace are considerable groups of these early flowering Anemones, there named A. blanda. But these seem to be a batch of seedlings; they are so varied, and also are very beautiful. A. blanda is reputably a darker blue-flowered kind than is A. apennina. The flowers of these plants, however, have very few that are dark blue. Not a few are pure white; some are pale blue, one I specially noted having rather flattish petals of a pretty pale blue, with a white ring round the eye. But the gem of the group was a really beautiful carmine pink, quite a new colour to me in the race of Anemones, and well worth specially saving and increasing. I know of no species or kind among these stellate Anemones giving such charming colour. Perhaps my knowledge of them is limited. In any case, if from seed can be obtained such varied and beautiful flowers of this alpine strain, everybody loving early spring flowers may wish to grow some.—A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Best six Roses for general use.—I was asked recently by an amateur friend the names of the "best" six Roses. His garden was small, and his idea was to have a few varieties with several plants of each. They were to be scented, free-flowering over as long a period as possible that Roses are obtainable outdoors, and also to be good wet weather blooms; one was to be a climber. Of course, it is impossible to pick out the best six for all soils and climates, but I venture to send you my selection for other readers to improve on—of course, bearing in mind the above restrictions, with as wide a colour range as possible: G. Nabonnand, Marie van Houtte, General MacArthur, La France and Mme. Abel Chatenay, while the climber was Mme. Alfred Carrière. Certainly there are Roses that beat the above selection on one point or another, but I think this selection cannot be beaten for all-round excellence.—W. P. WOOD, *St. Peter's, Kent.*

Exhibition of pot Roses by the National Rose Society.—Why should not we see some such announcement as the above—if not this season, then next? From among the numerous members of this flourishing society surely there would be sufficient to whom such an exhibition would be welcome, and it would afford amateurs and trade growers a means of testing their skill in another phase of the culture of the Rose. The cultivation of Roses in pots is not nearly so extensive as it should be. Why is it? Not, I am sure, from any falling off in devotion to the Rose or any insensibility to its charms as a forced flower, but simply, I believe, from an erroneous idea that pot Roses are difficult to manage. It is quite true that they need a house devoted to their culture and, more than this, the Tea Roses, as a rule, must be grown in greater heat than the Hybrid Perpetuals and some of the Hybrid Teas; but, in these days of cheap glass structures, what is to hinder the ardent amateur but a want of that zest which the knowledge of a competition would afford? Now that there is such a beautiful hall as that at Vincent Square, I am certain that such an exhibition held during the early days of May would be well patronised by London society, and it would doubtless be well supported by our trade growers, including those who grow the blooms for florist purposes, especially if medals and diplomas were awarded and plenty of space allotted to make it worth their while to show. Now that the Rambler Roses are cultivated as pot plants to such an enormous extent, there should be an exhibition of great beauty even of these alone. The show would, of course, be held so that it did not clash with the great Temple Show, which, so far as Roses are concerned, is supported almost entirely by the trade growers. What I should like to see is more amateurs come forward and put up groups such as Mr. Hudson of Gunnersbury displayed some years ago with that fine collection of Moss Roses that many will remember, and many an amateur could bring a box of Maréchal Niel and Fortune's Yellow such as we never saw at the summer show.—P.

Euphorbia Characias and E. Sibthorpii.—In reference to the above species (*see* page 87), I may say that E. Characias is the dwarfer, as it flowers freely when only 18 inches to 2 feet high and makes a rather sombre bush in winter unless it has a background of something lighter, as previously stated. Owing to its evergreen character, it would succeed best where sheltered by trees or bushes, or planted within the influence of the more equitable temperature of the seaside, as it is a native of Western Mediterranean regions. E. Sibthorpii is more closely allied to E. Wulfenii, but grows taller during the same period of time. It is a native of Greece, and the average length of the leaves on the upper part of the stem is 3 inches to 4 inches, but on vigorous young plants are much longer. They are about as densely arranged on the stems as those of E. Wulfenii. The flowers of E. Sibthorpii are arranged in a dense terminal cluster, but smaller clusters are carried down the stem for a greater or less distance, according to the vigour of the plant. Both of the last-named are liable to lose their lower leaves after a time, though this could be masked by dwarfer plants in front of them. E. Sibthorpii I consider the most stately of the above three. E. mellifera has much broader leaves than either of the above, and would likewise be benefited by the shelter of trees, especially during severe winters or the prevalence of east winds.—J. F.

Trial of single Chrysanthemums.—I am requested by the floral committee of the National Chrysanthemum Society to inform you that arrangements have been made for a trial of all varieties of single Chrysanthemums during the forthcoming season, with the primary object in view of determining varieties that are too much alike. The following members of the trade have generously promised to assist in this important work, viz., Messrs. W. Wells and Co., Limited, Merstham, Surrey, who have undertaken to grow outdoors the September and October varieties; Mr. H. J. Jones, Ryecroft Nurseries, Hither Green, S.E., and Keston, Kent, who will grow in pots the November varieties; and Messrs. H. Cannell and Sons, Swanley, Kent, who will grow the December varieties. In order that these series of trials may be of a comprehensive character and conclusive in their results, the floral committee will be grateful if nurserymen or raisers possessing varieties not catalogued by the above-mentioned firms will forward direct to them either cuttings now or plants later in the spring. When forwarding stocks for the purposes of these trials, kindly attach the names, and give particulars as to growth and habit and any other information that may be useful to the respective firms. The importance of these trials to the society and to growers and the trade cannot be overestimated; and in order that they may be a complete success, the floral committee ask for your co-operation and support with every confidence. You will be pleased to hear that the firms who are undertaking the trials will afford every facility to all who are interested to inspect the respective collections during the flowering season. May I ask for your immediate attention and assistance to make this effort a success.—RICHARD A. WITTY, *Secretary, 72, Savernake Road, Gospel Oak, London.*

Sweet Pea Etta Dyke with six flowers on a stem.—The accompanying illustration of Sweet Pea Etta Dyke is from a photograph kindly sent us by Mrs. M. Peacock, Anchor Hotel, Thetford, Norfolk. Mrs. Peacock writes: "I have been very successful with Sweet Peas for the last two or three years, and have won the National Sweet Pea Society's silver medal. I have seen your coloured plate of Sweet Peas, and was very much struck with The King. I usually raise the seeds in pots of sand and plant out in the trenches in April. I use 10-inch pots and put eight or ten seeds in each pot. I find they do better than in smaller pots, as there is more depth for the roots. The trenches are prepared in late autumn with a good depth of well-rotted farmyard manure, a layer of lime and soot being mixed with it. After the plants are established in the trenches, I water them every day with a fine hose, letting the water spray over them like rain. I do not begin to feed them till just before flowering; then I give them liberal doses of "pea soup" twice a week. I get

A SPRAY OF SWEET PEA ETTA DYKE.

splendid flowers, mostly four on a stalk, and very long stalks. The spray of Etta Dyke shown in the illustration was cut on September 5. I had it photographed the same day in case it dropped, but it kept quite fresh in water for ten days and opened out into a very fine spray of perfect shape. I am enclosing my list for this year, which is as follows: White and cream—Nora Unwin, Florence Wright, Etta Dyke, Miss Frills, Paradise Ivory, Queen Victoria, Princess Juliana and Harold; mauve—Asta Ohn, Breadmore's Lavender and Rosie Adams; blue—Lord Nelson and Kathleen Macgowan; pink and salmon pink Nell Gwynne, Countess Northbrook, Countess Spencer, Mrs. Henry Bell, Constance Oliver, Helen Lewis, Sunrise, Maggie Stark and Kitty Clive; maroon—Prince of Asturias, Dusky Monarch and Maroon Spencer; scarlet—George Stark, Miss E. F. Drayson and Mrs. Duncan; crimson—Rosie Gilbert, Marjorie Willis, John Chapman and Marjory Linzee; bicolor—Elsie Herbert, Mrs. Andrew Ireland, Mrs. C. W. Breadmore and Aurora Spencer."

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Kitchen Garden.

POTATOES.—The maincrop varieties should be planted as early as possible, allowing them a little more room between the rows than was given to the earlier ones. They ought not to be planted closer than 2 feet from row to row.

Cauliflowers that have been wintered in frames or under hand-lights should be planted out now on a well-manured and deeply dug border.

Peas.—Make a good sowing of maincrop Peas on heavily dressed ground or in trenches. Duke of Albany, Centenary, Alderman and Quite Content are all excellent varieties.

Asparagus Beds may be cleaned and trimmed up at the sides, taking care not to expose too many roots at the sides of the beds.

Rose Garden.

Hybrid Perpetuals.—A start may now be made with the pruning of these. Use a sharp knife for the operation, and avoid using secateurs on live wood. In cases where there is dead wood to be removed they are handy, otherwise they should never be used. Opinions differ vastly on Rose-pruning, but there is no getting away from the fact that, if good blooms are to be obtained, pruning must be done. When quantity is the object, then the growths can be pegged down so that the whole surface of the bed is covered, and the results are very good in a way, but the blooms lack quality. In pruning cut the growths according to the vigour of the plant. For instance, supposing the variety is strong, leave 6 inches of wood, cutting the shoot off just above an outward-growing bud. When plants are weak in growth, hard pruning is advised, leaving about 3 inches to 4 inches of wood. After pruning give the beds a mulching of decayed cow-manure, and cover this over with a thin layer of soil.

Water Garden.

This is a very good time to plant the banks of streams and ponds. There is an excellent variety of plants at the command of those who wish to make unsightly banks beautiful. Primula japonica should be freely used, and when this is planted in bold masses the effect is exceedingly pleasing; Senecios in variety, carpets of Myosotis, Saxifraga peltata, Spiræas palmata, Ulmaria, Aruncus and venusta, Lythrums roseum and album, Iris in large variety, Marsh Marigolds (both double and single), Mimulus luteus and many others. Then we have Bamboos, which are splendid for the streamside, Osmunda regalis and the Gunneras. These last-named should be planted near the side of the stream to allow the toes to reach the water. They always grow more freely when the roots are in the water. In planting it must be borne in mind that such subjects as Spiræas, Forget-me-Nots, Lythrum and Iris should be planted in groups to create a bold effect, and the object must be to make the work as natural as possible.

Rock Garden.

The past winter has been a very trying one for alpine plants. So much wet weather and frosts following have killed a good many choice subjects. Plant up all vacant spaces as soon as possible now, replacing all old soil with fresh. To obtain the best effect the different varieties should be planted in colonies, where possible, six to twelve being used according to the space allotted to each variety. The hot sun and winds of March are very drying, and a sharp look-out must be kept to see that no plant is suffering from the want of water.

E. C. Pooley.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

Globe Artichokes.—This vegetable is much neglected in some gardens, while in others it is considered one of the chief dainties. In some soils it is very liable to die off, not so much owing to frost as to damp. It is easily raised from seeds, but unfortunately seedlings are often so coarse as to be of little use. Where there is abundance of room, it is a good plan to raise a large number from seed, and after they throw up their flower-heads, choose all the finer plants and discard the coarse ones. By this means plants of strong constitution are available, and these may be lifted and planted in permanent quarters about this date. If it is decided to make a new plantation from the old stock, now is the time to see about getting it done. Good cultivation is essential if the best results are expected. Thoroughly trench the ground, working in an abundant supply of old manure. Plant in lines 4 feet apart and 3 feet apart in the rows.

Jerusalem Artichokes.—These are so hardy that they can be planted at any time; but nothing is gained by being too early except that it is always advisable to keep work well in hand when at all possible. This is one of the few plants that will succeed on the same piece of ground for a number of years in succession; but if a fresh site can be allowed them, the crop will be finer. Fairly rich soil will give the best results. Plant 15 inches apart in the rows and 3 feet from row to row. It is an advantage to give a good dusting of soot to each trench when planting, as this helps to keep the little black slug at bay.

Flower Garden.

Liliums.—No time should be lost in getting ready the ground where it is intended to plant Liliums. Deep working is essential, and if the ground is inclined to be retentive, some means of draining off surplus water must be adopted. A good plan is to dig out a large hole, say, 3 feet wide and 2½ feet deep, where it is intended to have a clump of these noble flowers. In the bottom place 9 inches of broken bricks or other such rough material, and fill up with a compost of chopped turf and leaf-mould or peat in nearly equal proportions. It may also be necessary to add some coarse sand. Plant about 6 inches deep. It is not advisable to mix farmyard manure with the soil; far better mulch the surface round the plants with this material after the growth is well through the soil. A good handful of coarse sand (sea-sand is best) should be placed under each bulb and another handful above. Most Liliums are the better for partial shade, more especially early in the day. It often prevents damage by late spring frosts when the sun is prevented striking the plants in the morning. An ordinary frost will do no harm, providing the sun's rays are kept off the foliage until such time as it has thawed. The edge of Rhododendron beds are very suitable positions for such Lilies as auratum, speciosum, testaceum and others. The umbellatum section is less fastidious as to soil and situation, and will succeed in ordinary garden soil and in mixed hardy borders. So will the Turk's-caps. These latter also delight in partial shade, and succeed well when planted in grass.

Delphiniums.—These noble flowers are usually found in the mixed border, where they are most welcome; but I think that to do them full justice they should be planted in large clumps or beds. Two years ago I got a number of strong mixed seedlings from Messrs. Barr, which I planted in a square 2 feet apart each way. The first season we got some grand spikes, but last year the bed was entirely filled with a perfect mass of beauty. The plants reached a height of over 10 feet, the spikes being at least half that length.

C. Blair.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

BROAD BEANS.—In the majority of seasons the earliest sowing of this crop is made in February, but this year the weather throughout that month was so generally unfavourable that it is well within the bounds of possibility that no such work could be done until the first week of the present month. For the earliest supplies a Longpod variety is usually chosen as being exceptionally hardy, and now it is necessary that a Broad Windsor variety should be got in. The old-fashioned forms are steadily being superseded by those with finer pods containing three, four and even five splendid seeds; but no matter what the particular variety may happen to be, the amateur must not fail to thoroughly prepare the site, as well in regard to perfect mechanical working as to intelligent manuring, if he desires to reap the most generous reward. The seeds should be set in flat-bottomed drills about 3 inches in depth, and the placing must be closer than usual this season, as the seeds are not germinating as well as could be desired. Have the drills quite 8 inches in width and place the seeds near the edge on each side, eventually thinning out the plants to 6 inches asunder in each line for full cropping. Early in April a sowing should be made of an approved variety with extra long pods for exhibition.

PLANTING POTATOES. — This important operation should be pressed forward with the utmost possible speed, the ground being in the finest condition that can be secured by thorough cultivation. All sets of varieties for present planting should have either one or two strong, healthy, green sprouts upon them; and if these are put 4 inches or 6 inches beneath the surface, according to the nature of the soil, excellent results may be confidently anticipated. If it is possible to put a layer of wood-ashes in the drills before the seed is placed in position, so much the better; it will substantially help the plants.

TOMATOES.—Those who have suitable conveniences for bringing along the young plants will now have excellent material either already potted up singly or quite ready for that important operation. Use a plain compost of loam, leaf-mould and sand, and keep the plants in a position where they can have all possible light and as much fresh air as is consistent with perfect safety, since it is only plants which are sturdily grown from the commencement that will give the best returns. Amateurs who have only one greenhouse or one frame do not, or should not, start so early, or they will find it exceedingly difficult to keep the plants stocky until it is time for them to be put into the open garden in June. Sown now, seeds will germinate quickly, and if the plants are intelligently managed they will be splendid material by the time they are wanted. Set three seeds in the middle of a small pot, and, when the seedlings appear, thin out to one; but should space be restricted, sow in pans or boxes, placing the seeds at least 3 inches asunder in all directions, and keeping well up to the roof glass as soon as the young plants make their appearance

EARLY TURNIPS.—It is imperative that a sowing of Turnips shall be got in forthwith, and a variety of the Snowball type can be chosen. Immediately the seedlings appear commence dusting them with a mixture of soot and wood-ashes, choosing a time when the plants are damp, and persist in this as a deterrent to the flea beetle.

SPINACH.—This must still be placed among the neglected vegetables as far as amateur cultivators are concerned, and it is a state of affairs that ought not to be tolerated. It is a most beneficial food, and should have a place in all gardens. Grown, as it commonly is, in packed rows between other crops, where it is impossible for it to secure the light and air which are essential to its perfect development, the results may not be gratifying; but, correctly managed, the leaves will be thick and succulent, and, when properly cooked, will be most welcome on the table. Sow thinly in deeply worked fertile soil, and thin the plants early enough for them to have the opportunity to which they are fully entitled.

H. J.

A FEATHERED SEEDLING OF CROCUS CHRYSANTHUS. (*See page 141.*)

SOME GOOD LETTUCES FOR SUMMER USE.

NOT very many years ago, most gardeners, and practically all market growers, relied almost entirely on Lettuces of the Cos section for summer use, and even at the present time these are grown more largely in market establishments than those of the Cabbage section. No doubt prejudice has a lot to do with this. The market grower must of necessity supply what is demanded—that is his business—and it is equally as probable that the demand for Cos Lettuces was created at a time when the only Cabbage varieties available were of a soft, flabby character. Happily this has been changed, and we now have Cabbage varieties the leaves of which are equally as crisp as, if not more so than, the best Cos sorts, and have the additional advantage of not running to seed so quickly in hot weather.

Generally speaking, Lettuces can be successfully grown in any garden, but, like every other crop, they well repay good culture and liberal feeding. A Lettuce grown slowly on poor soil will be tough and flavourless, and not to be compared with a large, solid specimen that has had proper attention.

For summer crops sowings may be made outdoors, at intervals of a fortnight, from March till early July, the seedlings to be transplanted as soon as large enough. The distance will, of course, depend upon the size of the variety to be grown. For the large Cos Lettuces rows 18 inches apart and the plants 15 inches asunder in the rows is not too great a distance, and the large Cabbage varieties should not have much less space, 15 inches and 12 inches respectively answering very well. Where space is limited, some plants, especially of the early sowings, may be allowed to remain in the seed-bed, and these will usually come in for use a week or two earlier than those transplanted.

Coming to varieties one is confronted with a formidable task. There are now so many good sorts to select from that one cannot really say which are the best. Among Cabbage varieties I have, for several years past, found Carter's Holborn Standard a reliable Lettuce in every way. It forms large, handsome, solid heads of the finest quality, and remains in good condition for several weeks even in the hottest weather. Sutton's Supreme is another Cabbage Lettuce of considerable value for summer work. Like Holborn Standard it forms large, solid, crisp heads, and remains good a long time. Its handsome appearance renders it valuable for exhibition. Dobbie's Exhibition Cabbage Lettuce is also excellent for hot soils and is quite distinct. It forms solid hearts of rather large leaves and has a good flavour. Webb's Great Heart is a large, handsome variety that I saw in splendid condition at the Kinver seed farms a few years ago, and although the weather for some time previously had been very hot and dry, it showed no signs of running to seed. An old but well-tried variety is All the Year Round. It is a good summer as well as a winter Lettuce.

Of Cos varieties it is even more difficult to make a selection. Many sent out under different names appear to be almost identical. Possibly the National Vegetable Society will one day be in a position to do away with this duplicity of names. Last year Webb's New Ideal did very well with me. It is a large, incurved variety and needs no tying, the hearts forming quickly. A distinct variety is Sutton's White Heart, a broad, solid Lettuce of large size. It produces beautiful white hearts of first-class quality. These two sorts, with Mammoth White, will be sufficient to meet the requirements of any amateur.

H.

THE GREENHOUSE.

LAPAGERIAS AND THEIR CULTURE

THE Lapageria is not grown in these days so extensively as it was a quarter of a century ago. In many large gardens throughout the country some very fine specimens may still be seen, and they only need to be seen to be admired when the lovely blossoms are open. As there are now so many glass structures in the

THE RARE SAXIFRAGA FALDONSIDE. (*Natural size.*)

country, and the owners of them are often nonplussed as to what kind of climber or trailing plant they can procure to furnish the wires, pillars, or other portions of the houses, I do not hesitate to recommend the Lapageria as a very charming and fairly easily grown plant.

One may occasionally see a Lapageria plant in a very bad state of health; the leaves are pale in colour, tough in texture, few in number, and the young shoots—if there are any—are short and spindling. Now, such a condition is frequently caused by an uncongenial rooting medium. The compost used is mostly of too light a nature, containing either too much peat or leaf-soil.

Again, the watering in such circumstances requires the greatest skill, because of the tendency of the internal portion of the compost to get excessively dry and to remain so. Use more fibrous loam and less peat or leaf-soil as the case may be, and provide very ample drainage, whether the plants are grown in pots or in borders. I prefer small brick pits about 18 inches square. A very hot position is not suitable either. An east, north-east or west position is the best. It is better to plant in a north position than a south one where there is full exposure to the sunshine.

The foliage must be kept very clean, and to this end it is necessary to sponge the leaves; this can best be done by taking the plants from the wires, so care must be taken not to allow the shoots to entwine around them. There are not many varieties, and rosea and alba are the two best. AVON.

ODONTOGLOSSUM SPLENDENS

MANY new and excellent Odontoglossums have been raised by Orchid experts during recent years, and the one illustrated can claim to be placed in the front rank of these new-comers. It was fully described under "New Plants" in our issue dated March 5. When shown by Messrs. Sander and Sons of St. Albans before the Orchid committee of the Royal Horticultural Society on the 22nd ult., it created a considerable amount of interest and was granted a first-class certificate. The ground colour is white, very faintly tinged with yellow, and the blotches are brownish crimson.

THE FLOWER GARDEN.

SAXIFRAGA BOYDII AND ITS VARIETIES.

IT goes without saying, I think, that Saxifraga Boydii is the queen of the yellow-flowered Saxifrages, inimitable and alone among the many early flowering gems of which the genus is composed. The original is a presumed hybrid between S. aretioides and S. burseriana, and originated in the garden of Mr. Boyd, Melrose, N.B. I say "a presumed hybrid" advisedly, inasmuch as the plant was the product of a natural cross and for which, at first, two white-flowered species were held to be the parents. On the plant first flowering some years later at Kew, however, the late Mr. Dewar, who was then in charge of the alpine department, suggested the influence of the yellow-flowered species above-named, and which, I believe, has met with general acceptance despite the manifest gap which separates this and the other parent named in the time of their flowering.

But whatever the origin of the hybrid, two things are certain, viz., that the coming of Boydii created a desire for the better things among alpine plants and gave a decided impetus to their cultivation. The only fault that has to be found with this lovely yellow-flowered plant, whose inch-high stature appeals to all, is that it is difficult to maintain long in good health, and the more so, according to my experience, in low-lying or fog-smitten districts. A plant may be in apparent health to-day, to-morrow a browning of the rosettes appears, and presently these perish as though touched by some virulent poison or malignant disease. That the failing is not confined to one species or variety, or even to the low-lying districts aforesaid, I know full well, a similar or identical thing causing the destruction of the plants often enough in their native haunts or in mountainous districts where they are cultivated. The best remedy I have to offer is air, and that overhead dryness at certain seasons that might afford some sort of substitute—poor though it be—for the pure, clarified, exhilarating air of their mountain home and the deep bed of snow which covers them for weeks together. In the rock garden we might cover these gems with a sheet of glass, though, on account of their early flowering, the alpine house affords them the best protection. The soil for growing such plants should be of a gritty nature and abundantly drained, and, given these with firm potting, the cultivator has done his best.

Apart from the original, which produces flowers of deep primrose colour and which on first expanding are of lemon yellow tone, there are two others, Faldonside and Cherrytrees, seedlings, I believe, from the original, and both are yellow-flowered. Faldonside, which is shown in the illustration, has a larger and more shapely flower than its parent and is of a pale primrose yellow. Cherrytrees is a shade between these two and a very pretty variety. Occasionally one meets with a form labelled "lutea," a smaller flower, and probably also a seedling variation from the original. E. H. JENKINS.

THE FASCINATION OF THE CROCUS.

SPRING CROCI.

(Continued from page 129.)

HAVING cleared out of the way the florist's forms of spring-flowering Croci, I feel I may deal with a clear conscience with the species and their varieties that have a much greater hold on my affections. I do not suppose my readers will wish to learn about the rarer and, for the most part, unprocurable forms, nor yet of those that are either too expensive for buying in any quantity or too hard to please in the matter of soil or climate, and so never stay long with us. Thank goodness there are many that are cheap and lovely, sturdy and prolific. For instance, of C. Imperati, 3s. 6d. will purchase 100. If planted in early autumn in a warm nook of the rock garden, or at the southern foot of a hedge or wall or even tree, the result should be at least 200 lovely flowers from early in January till, perhaps, mid-March—a feast for early roving bees, abundance of seed, and, if in not *too* tidy a garden, a rich crop of self-sown seedlings to extend the patch in after years. There are two distinct forms of C. Imperati

THE NEW ODONTOGLOSSUM SPLENDENS. (*Single flower, natural size.*)

sold by the nurserymen. I used to feel certain which to go to for the kind I wanted, but having had no need to buy more for many years, thanks to their freedom of increase, I cannot now direct with certainty.

Messrs. Ant. Roozen used to regularly supply the monophyllous form, Mr. C. G. van Tubergen, jun., the diphyllous, and may still adhere to their special lines. I have never made up my mind as to which I like best, and should advise all who can to get both.

Every Crocus blossom as it appears above ground is wrapped up in a semi-transparent covering called botanically a spathe, and in many species it is a good distinguishing character whether there are two or only one of these spathes. Of course, as the name shows, the monophyllous form has but one spathe; it also has upright leaves, taller blossoms, which are produced simultaneously and, as a rule, early in January, and seldom show any variation in colour or feathering, being rosy lilac within and straw colour on the exterior of the three outer segments, marked with three dark purple lines.

The diphyllous or two-spathed form has larger flowers, closer to the ground, richer orange in the throat and varies a great deal. Two lovely white forms are in cultivation, but rare, and there is no end to the variety in the featherings on the outer segments; some are plain straw colour with no markings, and others richly feathered with crimson purple, and individual plants vary in this respect sometimes from year to year, which is, I think, unique among Crocuses. Occasionally they begin to send up flowers before Christmas, but generally come in later than the monophyllous form, and seldom have so many flowers open at one time, as they are extended over a longer period.

This latter is the true Imperati as described by Tenore, and I have not yet seen the monophyllous form either in herbaria or gardens from a wild source. It does not seed freely, and my experiments with its seedlings have not been conclusive yet, but I suspect it of being of garden origin, and possibly having something to do with C. suaveolens.

Sieberi is another Crocus for every garden. Its sturdy, somewhat globose flowers are bluish lilac, of a tint so hard to describe that I have matched it carefully in the colour chart which, thanks to the Royal Horticultural Society, is now our standard of colours. I find page 198, No. 2, "Bright violet," well represents the warmer tones, and page 205, No. 2, "Lobelia blue," the cooler ones. Its bright yellow throat distinguishes it at a glance from its near relation veluchensis, which is, unfortunately, still very rare in gardens. Sieberi seeds freely and soon spreads in any sunny border. In Crete it varies with white flowers marked externally with bands or stripes of rich purple red, and some of these forms are remarkably beautiful. They have very large stigmata of bright orange, which show up splendidly against the white and purple; but in spite of this preparation for the reception of pollen, I find them some of the shyest seeders of any, and unless some enterprising collector will risk his life among Cretan brigands, I fear it will be many years before these glorious forms of Sieberi var. versicolor become common. Tomasinianus is a veritable weed when once it begins to seed, for it would, I feel sure, take many years to eradicate by any means short of burning the soil. It is so lovely though, that so long as it keeps out of patches of other species I let it go its own way. It varies very much in colour, being of every shade of lilac from almost white to deep amethyst, and I have a good patch of the offsets of one seedling with a dark purple spot near the tips of the outer segments after the manner of vernus var. leucorhynchus, and also a major form that I prize highly, as not only is it large and robust, but has more blue in its colouring.

I hardly dare trust myself to write of C. chrysanthus. I have raised so many seedlings of its various forms and am afraid I may elevate to the dignity of swans what would be but ordinary geese to others; but as it is such a cheery, hardy little fellow, I will try to smother my almost parental pride and write of its better-known forms. It appears to me to demand division into three distinct races.

1. The type.—Flowers small, globose, orange yellow; anthers, yellow with black spots on the barbs; stigma, yellow or rich scarlet. One of the first to greet us in the new year, and though individual blooms get destroyed by snow or sharp frosts, it generally keeps up a display for several weeks.

It has given me seedlings with paler flowers and variously marked outside, with black featherings (see page 140), and just lately with deep bronze suffusion.

Waltham Cross. E. AUGUSTUS BOWLES.

(To be continued.)

LILIUM GIGANTEUM IN THE GARDENS OF ERMINGTON RECTORY, SOUTH DEVON.

LILIUM GIGANTEUM AND ITS CULTURE.

THE accompanying illustration of this beautiful and little-grown Lily is from a photograph sent us by Miss M. F. Hawker, Mutley House, Plymouth. The plant is growing in the gardens of Ermington Rectory, South Devon, and the following cultural details have been kindly supplied by the Vicar: "This Lily (which grows from 8 feet to 10 feet high, sometimes even taller) needs a warm situation in the garden and one which is sheltered from the wind. During the growing time, which begins early—this plant at the time of writing (March 4) is more than 6 inches high—care should be taken to shelter the young foliage from frost. In dry seasons water and liquid manure will be of much service. To plant the Lily a pit should be dug a spit and a-half deep and some nice earth mixed with leaf-mould and some *old* manure put into it, and then the bulbs. These should be well mulched with some light waste, or any leafy material, and a little manure. Every flowering bulb dies after it has flowered, but, of course, it does not fail to provide young ones for succession. The flowers are pure white and sweetly scented. The bulbs used to be 7s. 6d. each, but are now cheaper. If people can have patience—seven years—the best bulbs are produced from seeds, the young plants from which are very much sought after by slugs, &c., and need protection from these enemies."

DAFFODILS AND TULIPS AT VINCENT SQUARE.

IN the Royal Horticultural Society's Book of Arrangements for 1910 it is stated with reference to the forced bulb show, held on the 8th and 9th inst., that "The object is to demonstrate the varieties best suited for gentle forcing." The hall was packed with lovely exhibits and crowds of people; in fact, I should think the number of visitors present between 2.30 p.m. and 4 p.m. must have very nearly been a record. The show was a splendid object-lesson so far as cut Daffodils and Daffodils grown in fibre are concerned; but one could not help thinking that it would have added to the interest if there had been more samples of bulbs grown in pots in the ordinary way. Cultivation in fibre is all very good in season and in reason, but I do not imagine that its warmest advocates would say that the results to be obtained from the practice are superior to those to be got from soil and pot. I quite allow that the fine exhibits of Lady Tate (Park Hill, Streatham Common) were equal to anything which could be produced from the old-fashioned way; but

many of those in the competitive classes and in the trade groups had quite a different look about them from what they would have had had they been grown by the older method. This writing on the wall must be interpreted as a warning to those who think that all that has to be done to ensure success is to buy fibre and bulbs from some good dealer, and that then all will be well. The non-drainage system requires a very great deal of care to get the best results, more so than many anticipate who embark upon it. I wonder if it would be possible another year to have a class with prizes for Daffodils grown in the ordinary way in small pans about 8½ inches in diameter and 5 inches or 5½ inches in depth. How bright Southern Star would have looked and how dainty W. P. Milner! while what a fine bold group would well-grown Mme. de Graaff or Fairy (with its majestic broadly reflexing trumpet) have made! Fairy is a fine thing, but it is one of the short-stemmed race that are no use for cutting. I would suggest that the niche that these would best fill in house or room decoration is to grow them in quantity in shallow pots or pans, such as those mentioned above.

On the various stands there must have been altogether well over 100 different varieties exhibited in a cut state. Visitors accordingly had plenty of material from which to take notes for their next year's requirements in the cut Daffodil line. Before proceeding to enumerate some of the prominent features of the show, I should like to say that Messrs. Barr and Sons' Blackwell and Messrs. Cartwright and Goodwin's Henry Irving were two extremely fine examples of culture. The former quite put into the shade Gloria Mundi, which it resembles and which was placed near it in the group, while some people, I believe, almost refused to credit the correctness of the label of the latter, thinking it must be some fine new variety.

Undoubtedly the best group was that of Messrs. Cartwright and Goodwin, who had their graceful arc of flowers full of a great variety of well-staged blooms, the whole of which had been grown in Mr. Cartwright's private garden at King's Norton.

Southern Star was probably the one that attracted the largest amount of attention on account of the deep vivid red edge of its widely expanded cup. I was told that it had been out in full flower on February 20, and that it is one of the best of plants for forcing purposes. It is, as a catalogue describes it, "A most lovely flower." The large starry, stiff white perianth and the flat brilliant red-edged cup formed an excellent combination, which its earliness and suitability for pots only serve to enhance. Coreen is a well-formed Englehearti with a pale primrose perianth, a widely expanded pale yellow cup with a pale orange edge. It has a fine strong stem and a good constitution. The bunch of old Queen Sophia was very delightful. I wonder whether this variety is like Dr. Fell and does better in pots than in the open.

Fairy, which I have already alluded to, is a very taking flower; its large, bold trumpet singles it out at once as out of the ordinary. For pot-work it should prove effective.

Weardale Perfection and the deep golden yellow Goldfinch were two fine trumpets that gentle forcing obviously suits. The exquisite drooping Ariadne, whose place is in a vase just above the eye-line, must also be mentioned, and with Scarletta, which was prominent because of its vivid orange red cup, must bring my notes on this group to a close.

Messrs. Barr and Sons, who well deserved the silver Flora medal awarded to them, had, among others, Peter Barr; but this is hardly "practical politics" for pots just yet, seeing that it is still priced at several pounds a bulb. Even if it were, I think I would rather have Alice Knights with its pure white starry perianth and elegant wide-mouthed trumpet of the palest primrose. It is a free bloomer, which is an additional recommendation. Hamlet and Lord Roberts both looked well, as if mild pot treatment had suited them.

Robert Sydenham, Limited, had a nice, tasty little stand of blooms that had been specially grown for the firm not a hundred miles from Birmingham. White Lady was distinctly good, but it is not a variety that I very much care about for forcing; its perianth does not keep very firm. Glitter was also good. It is a pretty little flower and very useful for pots. Bullfinch made an attractive bunch, and Lucifer was effective.

Messrs. Pearson and Sons, from Lowdham, had a varied collection of the ordinary kinds with a few newer ones interspersed among them. Chaucer (one of the newer Poets) was in fine condition, and is evidently a good variety for gentle forcing. The new double Argent is another kind that might well be given a trial. One of the best bunches was that of Firebrand. It is free, and cannot be passed over on account of the deep colour of its cup. Unfortunately, the perianth often gets wingy before the flower is over. Madge Matthew is a decorative Leedsii, with the same type of crab-like perianth that we find in Torch or Una; in fact, it might be described as a lesser form of the latter.

Messrs. W. H. Page and Son had a few vases of Excelsior. It is a flower somewhat after the style of Golden Spur, but most valuable for a succession, coming in under similar treatment about a week later. It has good substance in its petals and is of a deeper shade of yellow than Golden Spur.

I have left no room for Tulip notes; but, all the same, I must beg a few extra lines to say that, in my opinion, the exhibit of early Tulips by Messrs. R. and G. Cuthbert was on quite the right lines and one of the most useful things in the show. I was glad to see it obtained a similar award to that given to Messrs. Cartwright and Goodwin.

In all there were about two dozen kinds, nicely arranged in gentle undulations about a foot above the floor level and in perfect condition of flower and foliage. One very seldom sees so many kinds together in fairly big masses. Flamingo, a sort of pink White Hawk; La Remarquable, a sort of claret and cream with a buff yellow edge; Unique, a pure white with a broad yellow flame on each petal; Sir T. Lipton, a fine rich red; Vermilion Brilliant, the grand old bright wax red; and Grace Darling, the deep red, bloom-covered beauty, had each of them many admirers. There was nothing very new, but it was a fine exhibit of well-tried varieties.

JOSEPH JACOB.

NOTOSPARTIUM CARMICHÆLIÆ IN A DEVON NURSERY.

PLANTING GLADIOLI.

THOUGH some of the new varieties are expensive, there are plenty of good and cheap kinds to be had in the various sections. They may be planted from now onwards till the end of April, and may be grown in beds, as groups in the border, or as dot plants over a groundwork of Verbenas, Drummond's Phlox or Violas. To obtain really good spikes some pains should be taken in the preparation of the ground, but manure should not be placed close to the corms.

A good system is to take out holes from 4 inches to 6 inches deep, place half an inch of coarse sand in the bottom and then arrange the corms on this about 8 inches apart. If they can be covered with sand so much the better.

NOTOSPARTIUM CARMICHÆLIÆ.

THIS beautiful New Zealand shrub is not nearly so well known as it should be, especially in the West and South-West of England, for in these districts it is quite hardy. The plant shown in the illustration is planted on a rockery in the nurseries of Messrs. Robert Veitch and Son, Exeter, and is now about 8 feet in height and 6 feet across, with a trunk fully 12 inches in circumference. When in bloom, in July, it is literally smothered with its dainty pink Pea-shaped blossoms, as the illustration shows. When at its best—and it remains in bloom a long time—it is highly attractive, and commands attention from even the most casual observer.

Exeter. S. RADLEY.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN. — Providing the weather and soil are both suitable, a good-sized planting of early Potatoes may be made now. If the tubers were put up to sprout, as advised some weeks ago, they will now have sturdy green shoots on them about an inch in length, and care must be taken to preserve the best of these when planting the sets.

I.—AN OLD ROOT OF THE LYCHNIS IN EXCELLENT CONDITION FOR DIVIDING INTO EITHER SMALL OR LARGE PIECES.

Generally speaking, it is a good plan to retain the three strongest shoots and rub out all others. This gives a large crop of moderate-sized tubers, which are generally what is required from early varieties unless they are being grown for exhibition, in which case retain only the strongest shoot to each set. Rows 1 foot 9 inches apart and a distance of 14 inches between the sets in the row will answer well for early varieties, which are usually short-topped. In planting sprouted Potatoes—and the system answers equally as well for unsprouted tubers—I take out good-sized holes 6 inches deep with a spade, give a good sprinkling of Wakeley's Hop Manure to each station, and then carefully place the tubers in the holes with their sprouts upwards, afterwards filling in the holes lightly with fine soil. When fairly dry the surface of the plot may be raked over, and the whole will then present a neat appearance. I find the roots of the Potatoes much appreciate the Hop Manure, and it does not scar the new tubers as some other patent manures are apt to do.

Flower Garden.—As soon as the soil is dry enough now, some of the hardiest annuals may be sown, but not all those which seedsmen list as "hardy annuals." This term is very frequently misapplied, and is usually given to those annuals which can be sown direct in the open garden. The Nasturtium is one plant of many that seedsmen list as a "hardy annual"; yet, in reality, it is one of the most tender annuals grown in our gardens, 1° of frost being sufficient to destroy it. Under these circumstances it is obvious that it would not do to sow all the flowers found listed in catalogues as hardy annuals at this early date. The following, however, may be sown now, and care must in all cases be taken to sow the seeds very thinly: Eschscholtzia (strictly a perennial, but usually grown as an annual), Mignonette, Nemophila insignis, annual Lupines, Candytuft, pot Marigolds, annual Chrysanthemums, Cornflower, Coreopsis, hybrid Gaillardias (which, though in most cases are perennials, are usually grown as annuals), Gypsophila elegans, Larkspurs, Limnanthes Douglasii, Night-scented Stock, Nigella or Love-in-a-Mist, and Shirley Poppies. It will be seen by the above list, which is not exhaustive, that there are many annuals which can be sown outdoors at an early date to provide flowers before the more tender annuals give us their quota of beauty.

Greenhouses and Frames.—The sun is now getting powerful, and attention to the shading of glass structures must be given without delay. Undoubtedly blinds of light tiffany, which can be raised or lowered at will, and which do not exclude the light which is so beneficial to plant-life, are much the best and cheapest in the long run, and, where possible, these should be fixed. The best and simplest system is to nail the blinds securely to the rafters at the top of the house, running a half-inch-thick batten along the edge and over the blind, as this will prevent tearing. Then at the eaves of the house a large roller will be supported by iron hooks made for the purpose, the blind at this edge being nailed firmly and evenly to the roller. One end of the roller will have a deep, reel-like arrangement, in which one end of a strong length of window cord is nailed. The cord is then wound round the reel while the blind is down. To raise the blind pull the loose end of the cord, and as it is unwound the blind will be raised. When the latter is rolled up the cord can be fastened to a hasp or catch secured to the opposite side of the house for the purpose. Of course, blinds of this sort cannot very well be carried over roof ventilators, and should be fixed below them. The ventilators and any glass not covered by the blinds can be stippled with one of the preparations for the purpose now on the market. Blinds for frames can be fixed to plain rollers, these to be rolled up by hand.

Room and Window Plants.—Several enquiries have reached me recently concerning the repotting of these; but this work is better deferred until next month. The plants should, however, be frequently syringed or sponged with tepid water to clear off accumulations of dust, which do considerable injury by clogging the breathing pores of the foliage. Now that the days are longer and brighter, plants indoors, in common with those in the greenhouse, will need water at more frequent intervals, and on no account must they be neglected in this respect. Such bulbous plants as Hyacinths and Daffodils growing in ordinary soil will need an abundance of water just now, much more than the majority of room plants require. A. A.

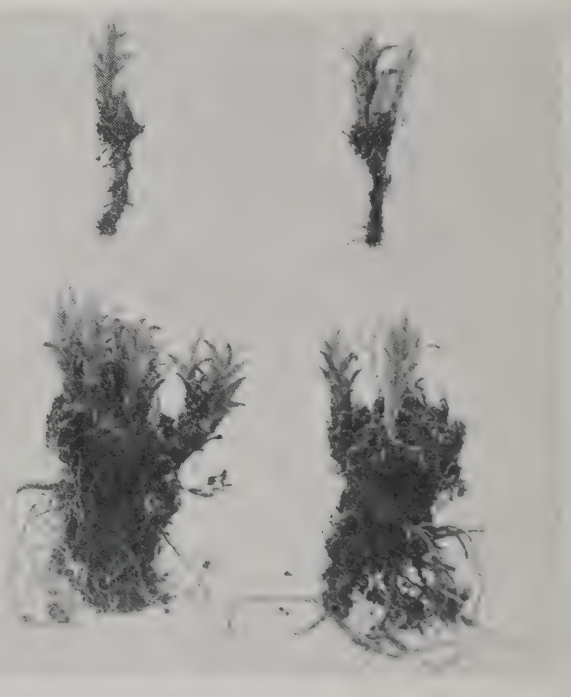
INCREASING AND GROWING THE LYCHNIS.

ALTHOUGH the subject under notice does not embrace a very large number of species and varieties, the latter are sufficiently interesting to justify a special reference being made to their usefulness and beauty in the hardy flower border. There are both annual and perennial species, but it is only to the latter that I wish to draw attention now. They are plants of the Pink family, and several of them are well suited for culture in the hardy border. The different kinds that are enumerated are of easy culture and distinctly showy and attractive. The Lychnis revels in sunny borders where the soil has been deeply dug and well manured. This subject, however, will succeed very well in any good ordinary soil that has been deeply dug and rendered sweet and clean by exposure to the elements for a time before planting operations are carried out.

The common name of the Lychnis is Campion, although some of the plants bear the names of German Catchfly (L. Viscaria) and Jerusalem Cross (L. chalcedonica), a Russian species, said to have been introduced so long ago as the year 1596. The scarlet Lychnis coronaria is dedicated to St. John the Baptist in the Catholic Church. The Lychnis is also called Rose Campion, Red Campion and White Campion; by ancient writers it was known as Flower or Campion of Constantinople.

A few of the better kinds are the following: Lychnis chalcedonica, a brilliant scarlet, very showy and effective border plant, height 3 feet, summer flowering; L. chalcedonica fl.-pl., a vermilion scarlet double form; and alba, white, a beautiful trio of one species all attaining the same height; L. Viscaria, a pretty rock plant having rosy red flowers; L. V. alba grandiflora, with trusses of large single white flowers; and L. V. splendens plena, which evolves panicles of large double flowers of a rose colour, not unlike a double-flowered Stock in appearance. All of these three varieties attain a height of about 9 inches, and are very pretty in early summer. L. haageana grandiflora is a hybrid yielding handsome, rich scarlet flowers resembling a Maltese Cross; the plant attains a height of about a foot. Other good species are L. Lagascæ, a Pyrenean species growing about 3 inches high and bearing rosy blossoms with white centres; L. alba plena (the Double White Campion), having large, pure white double flowers and fragrant, height 2½ feet, flowering from June to September; and L. Flos-Jovis (Rose Campion), a bright pink, height 2 feet; besides other interesting kinds.

Those who have the necessary old plants in their gardens at the present time should proceed forthwith to lift them for the purpose of dividing them into pieces of various sizes. Although I recommend this division of the old plants at this period, readers should distinctly understand



2.—DIVIDED PIECES OF THE OLD PLANT SHOWN IN FIG. I. EACH WILL MAKE A GOOD PLANT DURING THE PRESENT YEAR.

3.—THE METHOD OF PLANTING THE LYCHNIS IN THE HARDY BORDER. THEY SHOULD BE GROUPED IN SEPARATE COLONIES.

that it may be done with equal success in the autumn. The plant shown in Fig. 1 presents great possibilities, for it is quite a simple matter to break up such a specimen into at least a dozen good promising pieces. Should the grower prefer to break the old clump into smaller pieces in order to increase his supplies, this may be achieved quite easily and a large number of well-rooted pieces with two or more shoots adhering be brought into being.

In Fig. 2 examples of divided pieces are shown. The upper pieces will quickly develop into pretty little plants, and the larger pieces in the lower half of the illustration will make excellent specimens and flower quite satisfactorily in the ensuing summer months. At this period the reader may enquire, Where should the divided pieces of the old roots be planted? I would have no hesitation in planting the larger pieces straight away in the border where they are to flower. In the case of the smaller pieces, it is better to give them cold frame treatment. They may be lifted from the frames a month hence in much better condition, and would go ahead with vigour. Quite a large number of such small pieces may be accommodated in a small cold frame.

Fig. 3 serves to illustrate the method of planting the larger divided pieces in the border. They should be grouped in colonies of three or more in each group. In small gardens this number will be quite sufficient; but in larger gardens where the borders are increased proportionately, six, nine or even a dozen pieces may be grouped most effectively.

Those readers who desire to raise the Lychnis from cuttings may do so. If ordinary care be observed, each shoot may be detached with a knife and with a root or two adhering. With such material each piece will give a good account of itself. Fig. 4 aptly illustrates a severed shoot and a similar shoot inserted in a "thumb" pot This may seem to be a somewhat extravagant method of raising stock; but the reader need only be reminded of the advantage accruing when the plant is ultimately shaken out of the pot—no damage is done to the roots. Cuttings may be inserted in beds of prepared soil in the greenhouse, in boxes or around the edge of pots. Any light, gritty soil will answer for the purpose of propagation, and the rooting process will speedily take place. D. B. C.

REPOTTING STOVE PLANTS.

The average gardener is very fond of the work of repotting stove plants, such as Crotons, Dracænas, Allamandas, Coleuses and similar kinds, which require a moderately high temperature and moist atmosphere if they are to grow and form perfect specimens. Crotons thrive in nice fibrous loam and sweet leaf-soil. Dracænas like loam, leaf-soil and peat. Coleuses and similar soft-wooded plants grow apace in a light, sandy compost.

At this season we often experience some very cold winds, even while the sun's rays are very warm. Nearly all the occupants of the stove house are now making young growth freely, and, of course, such shoots are very tender and easily checked by undue exposure to cold winds. It is at this stage, when the new shoots are growing freely, that the bulk of the repotting must be done. I like to have one or two movable potting-benches, so that the work of repotting can be done inside the stove when convenient. The portable potting-bench need only be a small one. The composts, too, must be warmed before they are used, and a good way to do this is to take some into the house a couple of days before it is required. Clean pots and crocks should be employed; it is very essential that the insides of the pots be clean and dry. If they were used in a dirty or damp condition, it would be very difficult to turn the plants out of their pots when a subsequent repotting had to be done. In all cases the new soil must be made as firm as that of the old ball, and a blunt-ended potting-stick should be used to ensure this being done. Take care not to injure the roots when ramming the new soil. Shamrock.

THE TOWN GARDEN.

Herbaceous Phloxes.—So great is the wealth of beauty and variety to be found among these plants during the late summer and early autumn months that a selection of them is well-nigh indispensable to any garden, large or small; hence those who delight in the hardiest and showiest flowers of the garden should lose no time in securing supplies. To say at once that the Phlox delights in quite rich and moist soils is to compress the essential cultural details of the group into the proverbial nutshell, though to leave it thus might rob it of not a little of its force and value. As a matter of fact, it is hardly possible for the gardener in either of the above to err on the side of liberality, and nothing short of the richest food supplies, accompanied by abundant root moisture, is calculated to make of these things a well-deserved success. To plant them within the rooting area of tree or shrub in soil already reduced by circumstances to the lowest fertility, and where in all probability extremes of dryness are almost sure to be found during the leaf-bearing period of the tree, is to court failure from the beginning. Hardly less bad would be these Phloxes if given a place in the crowded or much overgrown shrubbery; while another fertile cause of failure results from planting in highly mounded beds where most of the rainfall is directed from the roots of the subject. So important is this question of planting that it will not be out of place to state clearly what is

The Most Rational Method.—In the first place the position should be fairly open, or it may be within the region of tree shade so long as the soil is not robbed to any extent by tree roots. Then as to the surface of the bed; this should be either on a level with the surrounding soil or slightly below it, so that an opportunity is afforded of saturating with water in times of drought. In this way a bed whose surface is flat, or even 2 inches below the turf or the surrounding soil, may be flooded at will with the best possible results at flowering-time. Being a great surface-rooting subject, the Phlox may also be heavily mulched with advantage.

Some Showy Varieties.—The following are all excellent for border decoration and quite distinct: Mrs. E. H. Jenkins, snow white, very large truss; Etna, crimson scarlet; Aurore, brilliant orange scarlet; Le Siècle, rose pink; Iris, violet blue; Selma, salmon pink; Freifraulein Von Lassberg, very handsome, pure white; Eugénie Danzanvilliers, soft lilac blue; Le Mahdi, violet blue; Leonardo da Vinci, white, maroon eye; Flambeau, fiery red; and Paul Martin, china rose.

Michaelmas Daisies.—These are also known as Starworts and perennial Asters, the group constituting an important feature in the open-air garden during September and October when providing fleecy or billowy clouds of white, lilac, mauve, pale and deep blue, and other shades of colour. In their way these Asters are quite unique, there being nothing throughout the year to compare with them either in colour, variety or the wonderful profusion of their flowering. During recent years, too, these things have been cultivated as opposed to the complete neglect of former times, when, as a rule, they were relegated to the back of the shrubbery or other border to eke out a miserable existence or to die. How well these Asters repay for liberal treatment may be gathered from the remarkable displays made during the autumn months at the leading exhibitions, and which in very large degree is the outcome of annual transplanting. For the amateur, however, this is not necessary, and biennial or triennial planting will be found suitable in many gardens. It is important that the outer portions only of the plant—those grown in the fullest light—be retained when the replanting is done, as these give much the best results.

Good Varieties to Plant.—There are quite a host of good Michaelmas Daisies, hence any selection of them is a difficult matter. The following, however, are particularly good, and may be planted at once: Climax (the largest blue), Arcturus, Densa, Wm. Marshall, Robert

4.—RAISING THE LYCHNIS FROM CUTTINGS. THE GROWTH ON THE LEFT REPRESENTS A YOUNG SHOOT JUST AS IT IS SEVERED FROM THE OLD CLUMP, AND ON THE RIGHT THE CUTTING IS POTTED UP IN A SMALL "SIXTY" OR "THUMB" POT.

Parker, all blue-flowered of varying shades; Melpomene, Mrs. J. F. Rayner and Ryecroft Pink, with cordifolius, c. Ideal and c. Photograph, which are really among the most elegant of all. To these should be added Beauty of Colwall, which is a blue double-flowered variety of great merit, and, indeed, the first of its kind to appear. E. H. Jenkins.

THE ROSE GARDEN.

AMONG THE ROSES.

OWING to the excessive rainfall many have been prevented from planting the Roses they intended to, and have doubtless heeled them in the soil under shelter of a north hedge or wall. By the time these lines are in print the Roses may have been planted; but if not, I would advise that the first opportunity should be seized to carry out the work. It pays anyone to have some good soil prepared, and to give each bush, climber or standard about half a peck, allowing it to well percolate among the roots. This soil should consist of old potting soil or fine loam, sand, leaf-soil and well-rotted manure in equal parts, with about 3lb. of bone-meal to two bushels of the mixture. Such a mixture given liberally, even to old plants that are to be transplanted, will work wonders in their subsequent growth. Be sure to tread the soil firmly about the roots, and repeat this a week or ten days afterwards when the surface is fairly dry. All

Standard Roses should be staked at the time of planting. Where any trees are not looking healthy, just replant them in some well-worked soil and give the compost named above. This and pruning back hard will often completely rejuvenate a sickly looking tree.

Roses May be Safely Planted until April, but I would advise that the growths of all except wichuraiana Roses be cut back to within 4 inches or 5 inches of the base before planting or immediately afterwards.

Stocks for budding may now be planted and the work done all through March and early April. Standard Briars are usually planted before Christmas, but last year the writer planted several in March and they grew well; but then it was a genial spring. The standard stocks already planted should be made firm at the root as soon as the soil is dry enough to dig.

Seedling Briars are planted in well-dug land with an iron-cased dibber, planting the stocks about 8 inches apart in rows 2 feet to 3 feet apart.

Briar Cuttings and Manetti stocks are planted the same distance apart. These are best planted on well-dug land, putting down a line and making a nick or trench about 5 inches deep. Set the plants in, shovel in the soil and tread firmly. Afterwards draw the soil up to the stems, which remain thus until budding-time.

Budded Stocks that are not yet cut back should be so treated without delay. Standard Briars have the lateral shoots that contain the bud cut back to within 3 inches or 4 inches from the bud. In May when setting out these stocks we leave three shoots and cut off the others. The buds are inserted in the two lower shoots; then in February the top shoot and piece of stem are cut away close up to the next shoot that is budded. By so doing the upright stem heals over and prevents the dying back so frequently seen when the Briars are cut back at other periods.

Trenching can still be carried out ready for late planting. Where possible, incorporate some basic slag with the lower trench, say, half a pound to the square yard, and a liberal supply of bone-meal to the upper stratum of the soil.

Manure may be applied to old-established plants. Good farmyard manure is still as good as anything, but where this is not available, Wakeley's Hop Manure is an excellent substitute. Rose soil needs some material to provide humus or, in other words, to keep the soil in a good physical condition.

Pruning may be begun now, but only as regards old-fashioned Roses, such as Mosses, Gallicas, Hybrid Chinese, Damask, Alba, &c. Thin out old wood freely, but preserve last year's growths a good length, say, from 8 inches to 12 inches, and in some cases 18 inches. Austrian Briars, Scotch Roses and Penzance Briars need little or no pruning, and the same may be said of species such as R. lucida, but old wood should be discarded whenever it seems to impede a free circulation of air. We shall give more detailed hints as to the pruning of Hybrid Teas, Hybrid Perpetuals and Tea Roses in a future issue.

Cuttings of both Roses and Briars should be pushed down wherever it is found the frost has raised them out of the ground, and as soon as the latter is dry enough, make the cuttings firm by treading them on each side with the foot.

Retarding Tea Roses is often advisable for several reasons. This may be helped by mulching now with a good layer of farmyard manure, which tends to keep the soil cold. Some growers also plant these beautiful Roses on a north border for a similar reason, and they succeed very well, especially the thin Roses of the Marie van Houtte type.

Roses Potted Last Autumn from the open ground may now be brought under cover either in cold frames or in the greenhouse, and they should be pruned at once. If in the greenhouse, a bottom-heat should be provided either by placing a box on the hot-water pipes in which some Cocoanut fibre or ashes is provided to stand the plants on, or a nice bed of fresh stable manure and leaves made up in a brick pit. This class comes in most useful and will give splendid flowers. Rambler Roses that were potted up from the ground at the same time and cut back to 12 inches from the top of the pot will produce beautiful trusses of bloom.

P.

FOUR GOOD POT ROSES.

AFTER over thirty years with pot Roses I would select these four as the best for the amateur's greenhouse. A large number of varieties have come under my notice during that time, and the following are the pick in their respective colours. For a deep and rich crimson I would choose

Richmond. This was sent out as an improved Liberty, and it is certainly a better grower if not quite so brilliant in colour, There is more of maroon crimson in it than in Liberty. It is free in every way, a grand Rose to open, and retains its colour a long time.

Joseph Lowe is a decided improvement upon Mrs. W. J. Grant in growth and freedom, and stands up well. This is a deep imperial pink of good size, and has long-petalled buds and flowers. It also opens exceptionally well. For a deep yellow I should prefer

Perle des Jardins to Maréchal Niel for pots, but not if growing on the wall or roof. The foliage of this Rose is very pretty, and if the growth is rather erratic, every shoot carries a flower. We cannot do without

Niphetos as a pure white. Good as Frau Karl Druschki is, this Rose does not come so pure under glass, having a slight blush tint at the edges. Niphetos grows well if care is taken not to let the young growths get checked, such as from drought, over-fumigation, &c. Avoid these and you have the best white, one that has stood its ground for fifty years.

PURE YELLOW ROSES.

IN sending you a brief note upon some of these I do not propose including the varying orange and apricot yellows found in William Allen Richardson, Mme. Pierre Cochet, Mme. Falcot and others. Maréchal Niel is far ahead of all other pure yellows, but is not reliable outdoors, even when in the most favoured positions. Under glass it is finer than all others, and is superb in a slightly heated house. Climbing Perle des Jardins is another rather tender grower, but a little more reliable in the open. This also applies to Cloth of Gold, which is often only pale primrose yellow, and not to be compared to the other two mentioned. Aglaia is a very hardy climber and will do anywhere, but it must not be pruned. After it is established this is as free-flowering as any, although frequently cut out because it was not left long enough to bloom. Celene Forestier is very good late in the season. This Rose passes through the best part of the winter all right, but is often caught by the last frosts just as the sap is on the move; at least, such has been our experience, and I should hesitate to call it a hardy climber. Gardenia and François Foucard are the two best yellows with us among the wichuraianas. The first is very sweet-scented, and the last flowers a little in the autumn in addition to its early summer display. Both of these, as well as Electra, go much paler as the flowers open. When quite young they are deep yellows. The above are all climbers, but I would prefer Electra as a pillar Rose. Some good bush yellows can be selected from Le Progrès, Billiard et Barré, Sulphurea, Medea, Marie van Houtte, Mme. Pol Varin-Bernier, Mrs. Peter Blair, Souvenir de Pierre Notting, Harry Kirk, Caroline Kuster, Mme. Hoste, Perle des Jardins, Peggy, Instituteur Sirdey, Amazone, Etoile de Lyon and Mme. Margottin. Harrisonii and Persian Yellow are both very bright and clear, while Austrian Yellow is the best among the singles. I have endeavoured to name these Roses in the order of merit as they have been with us.

A. P.

NEW PLANTS.

PHAIO-CALANTHE SCHRÖDERÆ.—This is the result of a cross between Phaius Wallichii and Calanthe C. B. Schröder, and the result is certainly a striking flower. The narrow sepals and petals are very much recurved and twisted, their colour being primrose yellow with a faint blotch of purple at the base. The labellum is very broad, boat-shaped and rich maroon in colour. Shown by Baron Schröder, The Dell, Egham. First-class certificate.

Epi-Cattleya Nebo.—This is a very fine hybrid, the result of crossing Epidendrum O'Brienianum with Cattleya clæsiana. It much resembles the Epidendrum in habit and foliage, and the flowers also partake more of this parent than the Cattleya. The narrow sepals and petals are rose magenta, and the comparatively large and deeply fringed lip is white. Shown by Sir Trevor Lawrence, Bart. Award of merit.

Lælio-Cattleya Goldfinch Westonbirt variety.—A beautiful flower that scarcely deserves such an unwieldy name. The sepals are of a rich golden hue and the petals bronzy red, these being very broad. The labellum is rich carmine, or almost purple, and the whole flower presents a very striking appearance. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucester. Award of merit.

Cymbidium Lowgrinum Rosslyn variety.—A rather pretty flower in which the predominating colour is rich reddish brown, this being the colour of the sepals and petals. The labellum is a mixture of white, crimson and yellow, and adds much to the beauty of the flower. Shown by H. T. Pitt, Esq., Stamford Hill. Award of merit.

Fritillaria imperialis chitralensis.—Compared with the known garden forms of this Fritillary the above variety is decidedly small, yet there are a richness of colour and a general beauty and refinement which command attention. Cut spikes of the present novelty were before the floral committee for naming on February 22, when the award was provisionally made, the flowers being referred to Kew to establish their identity. The colour is rich golden yellow, and as the plant is said to be very common in Chitral, where it is regarded as the solitary representative of the Crown Imperial, it is much to be hoped that it may soon find its way into British gardens in quantity. The flowers presented to the floral committee were about one-third as large as an ordinary Crown Imperial, but we cannot say

nether these represented the flowers at their ue size. Shown by Miss Watson, Finch-mpstead, Berks. Award of merit.

Saxifraga scardica obtusa.—A white-flowered rm of considerable beauty and merit, and one the most desirable of the early flowering crusted set. The present plant is that figured me two years or so ago in the *Botanical agazine* as S. scardica, true; but this being und to be incorrect, the above name was lopted less than a year ago. Both are und wild in Macedonia, and are among the ost desirable of these early spring flowers. hown by Sir Everard Hambro, K.C.V.O., ayes Place, Hayes, Kent. Award of merit.

Shortia uniflora grandiflora.—Shortia uniflora the Japanese representative of this small yet lightful genus, of which only one or two species e in cultivation. The above-named variety s not only size but great freedom of flowering recommend it. The pink-suffused blossoms e fringed and, with ruddy stems appearing ove the small crimsoned leaves, render it a very autiful and desirable plant. S. galacifolia and forms from North Carolina have a much rger leaf-growth with more hooded flowers. hown by Sir Everard Hambro, K.C.V.O., Hayes. ward of merit.

Rose Lady Hillingdon (Tea).—This welcome llow-flowered novelty is said to have resulted om the crossing of Mme. Hoste and Papa ontier, though the influence of the latter is not parent unless in the length and shapeliness of e buds. The colour is yellow with buff shad-g, and the chief merit of the variety will be as early forcer, or possibly as a bedding variety. hown by Messrs. Low and Shawyer, Uxbridge. ward of merit.

All the preceding were shown before the Royal orticultural Society on the 8th inst., when the wards were made.

BOOKS.

Gardens of Delight.*—We have re-ived from Messrs. Kelway and Son a supple-ent to their "Manual of Horticulture," titled "Kelway Gardens and Kelway Her-ceous Borders—the Garden Beautiful and conomical." This supplement is worthy of the m that has published it, and it is interesting know that Miss Jekyll has written a note pressly for the Manual to draw attention to e earnest work Messrs. Kelway have complished in creating beautiful borders of wers. The note is as follows: "As the years by the love of gardening always grows. tterly the growth has been in a much-needed rection, namely, that of a wiser discrimination the use of material. With the better know-dge of plants owners of gardens are concerning emselves with learning which are the very st varieties, and, further, with their better use means of good arrangement and careful ouping for colour effect. The notable work of e owners of the great gardens at Langport has en perceptibly stimulated by the thoughtful iting and personal sympathy of the recent aders in horticulture. The result of this holesome stimulus, acting on long-sustained fort and unwearied patience, is now seen in the alth of splendid flowers in all the best classes hardy plants for which their renowned gardens justly famous." We have seen the borders the Langport nurseries, and the effort, most aiseworthy and successful, to produce that st difficult of all gardening, a colour scheme, is rthy of all praise. In "Gardens of Delight" veral illustrations are given, and the informa-n is practical, embracing the preparation of borders and their planting, grass walks, our effect and excellent plans. We commend s brochure to our readers.

*"Gardens of Delight." Published by Messrs. Kelway Son, Langport, Somerset. Price 6d.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

White Nymphæa for paraffin cask (*K.*).—A good white Nymphæa for your purpose is N. odorata, but N. tuberosa is more vigorous, and a fine double form of the latter is N. Richardsonii, although it does not appear to flower so freely as the single one. N. caroliniana nivea is also good for your purpose. Do not plant more than one root in the same cask. It is desirable to thin out the leaves of Nymphæas grown in tubs when they cover the water entirely, as these do, so as to allow some of the sun to reach the water to warm it. You should lift and replant the Nymphæas every three years or so, as otherwise they become too large for the limited space of the tub. You must char the cask before using it to take out any paraffin which is still in the surface of the wood.

Plants for wall top (*M. S. H. B.*).—It would have been of material assistance had you stated the precise character of the wall, and particularly whether it had been built with a view to growing plants thereon or not. An ordinarily built wall, put together with good mortar, is by no means a good place to start plant cultivation; whereas a rudely built wall with bad mortar, or mortar deficient in lime, or from which lime is almost wholly absent, is one of the best of places for such things. Then, again, there is the all-important matter of moisture, and any success is greatly assisted by the available receptive conditions on the top of the wall. If the wall is built with good mortar, such things as Snapdragons, Wallflowers, Red Valerian, alpine Poppies, Aubrietias and the like may be established thereon with a little care and chiefly by the sowing of seeds. We think, however, that you had better give us fuller particulars in order that we may render you definite assistance.

Plants for border (*Bromley*). — The chief drawback to the Pæony in the positions referred to—unless only the early flowering forms of P. officinalis were planted—is that they flower at much the same time as the early Roses, and by their size and gorgeous colouring greatly detract therefrom; otherwise they would fill the gaps admirably. The old double crimson variety of P. officinalis would, however, do quite well, and if planted alternately with Iris germanica Princess of Wales, white, would not only constitute a feature in advance of the Roses, but their leafage would act as a good foil to those plants when in flower. The Irises could be planted at once, but the Pæonies would be better if left until early autumn. What is really wanted is something to precede or follow the main flowering of the Roses, and at other times to act in a subordinate capacity, and this the Irises and Pæonies would do. Some bold groups of Daffodils might also appear in spring. The best way of all, perhaps, would have been to have first planted the standard Roses, and then filled up the gaps between with groups of dwarf Roses of one colour, with Daffodils springing therefrom.

Plants for border (*Sunless*).—To the groups you name might be added Trollius or Globe Flower, Hepaticas, any of the Campanulas, and particularly those of the Peach-leaved section, viz., C. persicifolia, Anemone japonica in variety, any of the Megaseas, Lenten and Christmas Roses, Primula Sieboldii in variety, P. rosea, P. denticulata, P. japonica, P. pulverulenta, Senecio Doronicum, any of the Spiræas, Flag Irises, many Lilies and other plants. Just what may be planted with advantage or success depends not a little on the soil of the border and whether you are prepared to meet to some extent the requirements of individual plants. For example, quite a variety of shade-loving plants prefer a peaty soil or something akin, and by giving them what they require, an interesting display covering many weeks might result.

Crocus and mice (*M. G.*).—It is highly probable the "Virus" may have the desired effect, though, as the mice are devouring the tops of the plants, we should be inclined to purchase a few of the small break-back traps employed for these pests, baiting them with small, shortly cut bunches not more than an inch or so long of young and fresh Carnation "grass," *i.e.*, leaves, which they appear unable to resist. We imagine the pests to be the blunt-nosed, short-tailed field mice, often called "voles," and they are certainly most voracious, as well as persistent and bold, in their attacks upon any group of plants for which they have a preference. In the above manner we have caught numbers, however. The ordinary baits of cheese they rarely touch when the green food of their choice is about. Where other animals are about, we cover the trap with a pot 8 inches in diameter, leaving a small aperture in the soil for the pest to enter, and this rarely fails to attract. The traps should be frequently examined, particularly when the pest is known to be actively at work.

THE GREENHOUSE.

Fatsia leaves for inspection (*W. S., Slough*).—The only fungus present was a saprophytic one, and the appearance of the leaves was as though they had been scalded. This might have been done by fumigating too freely while the foliage was wet or through watering with too strong a liquid manure.

Pelargonium leaves diseased (*A. H.*)—The leaves of your Pelargonium King of Denmark are attacked by a fungus which often gives trouble, and whose ravages are greatly on the increase. Highly fed plants that have been kept close and warm are particularly liable to be attacked by it. Spraying the plants with a solution of permanagate of potash and allowing them to have all the light and air possible will probably soon effect a cure.

Camellia not flowering (*G. E. D.*).—It may be that the roots of the Camellia are in a poor state, and consequently the growth is too weak to flower. If such is the case, the plant must be repotted, using a mixture of loam, peat and sand. If the plant is turned out of the pot and the state of the roots ascertained, it will probably be found that many of them are dead. If so, as much of the old soil as possible should be taken away and any decayed roots cut off. When this is done it will probably be found that the plant can be put into the same sized pot, which must be quite clean and effectually drained. Another probable cause is that the pot is so full of roots that the plant needs repotting. If so, this must be done, in which case a larger pot would, of course, be required. The plant may be kept in a cool house throughout the winter and spring, and be placed outside during the summer in order to ripen the wood.

Cypripedium flowers dying (*L. M. Tilden*).—There is no doubt that the cause of the Cypripedium blooms going off in the way yours have done is an excess of moisture, combined with too low and irregular a temperature. Cypripedium insigne is one of the most accommodating of Orchids; but still, the minimum temperature is decidedly low for it. If the plants had been dry at the time and the atmosphere of the house in the same condition, it is probable that no damage would have been done, but a combination of all three would prove decidedly harmful. Added to this, if there was a fog at the time it would make the injury worse. That your summer treatment was quite right is shown by the way the plants grew, and if a uniform night temperature of 50° to 55° had been maintained, rising somewhat during the day, it is

very probable that even with the moisture then maintained no damage would have been done, but the cold and damp have caused the mischief.

Information about Brassavola digbyana (*W. K. P.*).—In the first place, this is not at all an easy Orchid to flower in a satisfactory manner, so that you are by no means alone in your experience of it. The greatest measure of success is attained when the plants are grown in the warmest end of the Cattleya house, in which an intermediate temperature is maintained. In the warmest part the temperature will nearly approach that of the coolest end of the stove. The plants will by now be just starting into growth and also making fresh roots. When in this stage they require a plentiful supply of water, which must be kept up throughout the entire growing season. A moderate amount of shading is at that time essential. By autumn the plants will have perfected their growth, when they must have plenty of sunshine and a decreased allowance of water. They should, during the winter, be kept in a light structure and almost dry. A minimum night temperature of 50° to 55° must at that season be maintained. Unless good strong growths are ensured, flowers may be looked for in vain. Should the plants need repotting or top-dressing, this is the season of the year at which it should be carried out. A suitable compost is two-thirds fibrous peat to one-third of sphagnum. Even if the plants do not need repotting, they are often greatly benefited by being top-dressed at this season, whether growing in pots or baskets. In top-dressing some of the fresh compost should be worked around the base of the new growth, whence the roots are produced, so that they have a fresh medium to push into at once.

ROSE GARDEN.

Arsenate of lead for Rose pests (*Arden*).—This is a poisonous wash used for caterpillars on Roses; it should not be employed on such fruits as Gooseberries. We should say that known as Swift's Paste would be used at the rate of about 4oz. to ten gallons of water. Put in some water and stir until dissolved; then add the remainder of the water and apply as a fine spray. We should spray the shoots this month immediately after pruning, and give another spraying to the young growths. We consider it a very good spray for winter moth, tortoise moth and grubs.

Pruning Roses planted in November (*Constant Reader*).—First-season Roses should be pruned back severely, and you cannot err if you cut them all back to within 4 inches or 5 inches of their base, taking care to prune to an outward-looking eye. The climbing varieties prune back to within 2 feet of the ground, excepting Dorothy Perkins. This may be left unpruned this season. Next season the varieties will need to be pruned according to their habit of growth; sorts such as Mrs. W. J. Grant have their growths cut back to within 4 inches or 5 inches of their base, while those like Mrs. John Laing are retained a length of from 8 inches to 10 inches.

FRUIT GARDEN.

Branch of Quince for inspection (*C. Hanbury*).—The rough spots on the branch of Quince are due to efforts on the part of the plant to produce roots. As soon as the tip of one of these roots gets into the air, it dies on account of lack of water, and another root begins to sprout just behind it. This has been going on for years, with the result seen on the branch sent. It seems rather doubtful whether there is any real harm in this condition, and the tendency to the frequent formation of such roots is apparently one belonging to certain individuals or varieties. Possibly a severe thinning would tend to check it; but if the bush is in at all a damp place it is likely to continue.

Peach, Plum and Apricot trees from the nursery (*E. Brigant*).—All the young shoots of last year's growth should be cut back to within 9 inches above where they were pruned to before at the nursery. The spring growth is of no use; this will, of course, come away with the top part of the young branches cut off. Other branches will spring out from the shoots so cut back during summer, which will furnish a foundation of main branches for the body of the trees. If you did not cut these branches back as directed, the lower part of them would be devoid of branches and fruit-spurs for all time afterwards. Write us again at next winter's pruning, and we will gladly tell you how to proceed then. All the spray shoots that may spring from the sides of the shoots made next summer should be pinched back at the third leaf.

Morello Cherries and old Pear tree (*Fruits*).—Take the surface soil from round the trees until you come to a good body of roots (possibly about 6 inches deep). Top-dress the roots to the same depth with the following mixture: Get some turfy loam, cut it up into pieces the size of a cricket ball, and to every barrow-load of this add a gallon of lime, half a gallon of bone-meal and half a bushel of well-decayed farmyard manure. Place the mixture over the roots when the material is comparatively dry and tread it down firmly. About the middle of May add a layer of a similar manure over the new soil on the surface. Abundance of new roots will form in these new mixtures, and we shall be greatly surprised if in a year or two your trees are not greatly benefited. If you can give the old Pear tree a good soaking of water (manure-water from the cow or stable yard for preference), it would do it much good. Cut most of the spray growths away close to the old wood, leaving a few to form permanent branches if wanted to fill up the tree.

MISCELLANEOUS.

Names of fruit.—*J. C.*—1, Baumann's Red Winter Reinette; 2, Royal Nonsuch.

Names of plants.—*Ibex.*—1, Coprosma baueriana variegata; 2, Ophiopogon Jaburan; 3, Nephrolepis Piersonii; 4 Calathea zebrina; 5, Pteris serrulata tenuifolia. ——*F. B. M., Guernsey.*—Acacia fragrans.——*C. R. D.*—Hedychium species, probably gardnerianum; cannot identify without flowers.——*J. Merrick.*—Lonicera fragrantissima.——*Mrs. Clements.*—The Cineraria has no special name; it is merely a good, large-flowered florist's variety.

SOCIETIES.

SANDHURST, YATELEY & DISTRICT GARDENERS' ASSOCIATION.

THERE was a good muster of members at the Church Schools, Sandhurst, on Tuesday, March 1, when "Vegetable Culture" was taken for discussion. This is always a popular subject with the members. Mr. J. Evans, The Gardens, Snaprails, Sandhurst, introduced the subject in a very able manner, giving short cultural notes on Asparagus, Beans, Beet, Cucumbers, Onions, Carrots, Peas, Potatoes, Turnips, Tomatoes and the Brassica family, and a list of the best varieties for ordinary use and also for exhibition. He also gave hints on selecting specimens for exhibition. An animated discussion followed, in which those taking part were Messrs. Dupond, Townsend, M. Goddard, C. W. Goddard, Cowley, Chapman, C. Townsend, Brant, Rodgers, Austin and Leversuch. The usual vote of thanks was accorded Mr. Evans for his excellent paper. A feature of the meeting was the exhibits staged. Mr. Evans exhibited some fine Orchids and Ferns, the former including Cypripedium leeanum, C. Curtisii and two splendid cut spikes of Cymbidium lowianum, and the Ferns Nephrolepis superba, N. Westonii and N. canaliculata (very fine), also a vase of Princess of Wales Violets; Mr. Townsend, Sandhurst Lodge Gardens, some splendid well-flowered Cyclamen; Mr. W. Chapman, The Gardens, Hilfield, some fine sound bulbs of Ailsa Craig Onions, also Leeks and Chicory; and Mr. L. Dupond, The Nurseries, Crowthorne, Azaleas in pots.

CROYDON HORTICULTURAL SOCIETY.

A LANTERN EXHIBITION.

THE above society must indeed be congratulated on their progressiveness, for at their meeting on March 1 another great success was added to their endeavours to promote the profession of horticulture in their midst. Illustrated lectures have been found to be of great advantage both to lecturer and audience, and on the proposal of the committee a fund was started to purchase an electric lantern. This fund in a few months was heartily taken up by the president, vice-presidents and members, and at their rooms at the Sunflower Temperance Hotel recently a lantern evening was held. A letter of apology from the president (Mr. J. J. Reid), who was unavoidably absent, was read, and the placing of the first slide in the lantern was deputed to the chairman (Mr. C. H. Dyke), who in a few introductory remarks revealed the first view, a portrait of the King, the audience singing the National Anthem. Following this over 200 slides, mostly relating to different phases of horticulture, were put through. Views from Croydon gardens were easily recognised and applauded, and, suitable to the occasion, the portrait of the president and those of other prominent members were shown. Two valuable assets can now be claimed by this society, the microscope for scientific research and the electric lantern to illustrate their lectures, so that now the excellent work being done in the district must, and will, prove beneficial to the profession generally. An interesting exhibit was made by Mr. Adnitt of Kenley, the articles being a seed protector and propagator, simple in construction and most useful for its purpose.

READING GARDENERS' ASSOCIATION.

THE usual fortnightly meeting of the above association was held in the Abbey Hall on the evening of March 7. Mr. T. Judd presided, in the unavoidable absence of the president, over a good attendance of members. The chairman mentioned that Mr. G. Herridge, a much-respected member of the association, was dead, and it was agreed to send a letter of condolence and a wreath to the relatives. The hall was made most attractive by the lovely display of giant Primulas in variety, backed by Myosotis, Deutzias and Wistarias, exhibited by Mr. R. Doe, gardener to M. J. Sutton, Esq., J.P., Holme Park, Sonning, and by a superb lot of Cinerarias from Mr. F. Townsend, The Gardens, Hillside. Mr. Barnes, Bearwood Gardens, also sent a beautiful collection of hardy flowering shrubs, consisting of Andromeda, Berberis, Arbutus, Pyrus japonica, Pernettya, Jasminum, Forsythia, and a collection of hybrid Rhododendrons, Clianthus and Correa cut from the open ground in Cornwall. The subject for the evening's discussion—"The Hardy Flower Garden"—was introduced by Mr. House, who came from the kindred association at Bristol and is held in high esteem by the Reading members. It is needless to say that the subject, in the hands of so able a lecturer, was thoroughly expounded. Mr. House, in the course of his remarks, explained the meaning of the words herbaceous, perennial, biennial and annual, and dealt with the making of borders, time of planting, colour schemes and combinations, giving also a list of the most suitable plants. He set forth the plants which require to be lifted every year and replanted, and those which should not be disturbed for a number of years, at the same time giving hints on exhibiting perennials. A good discussion took place, and a hearty vote of thanks was accorded to Mr. House and also to the exhibitors. Five new members were elected.

THE DUTCH BULB COMPETITIONS.

THE General Bulb Growers' Society of Haarlem having again this year placed in the hands of the council of the Royal Horticultural Society valuable cash and medal prizes to be offered for Hyacinths grown here and exhibited at Vincent Square, the competitions took place on the 8th inst., and so far as the amateurs'—really, professional gardeners'—classes were concerned, brought numerous fine collections. The chief class for Hyacinths, singly, in pots, was one for eighteen, there being six prizes. Here Mr. E. Beckett, V.M.H., gardener to the Hon. Vicary Gibbs, Aldenham House, Elstree, was placed first; Mr. J. Gibson, gardener to the Duke of Portland, Welbeck Abbey, was second; and Mr. A. Lewis, gardener to T. von Hayden, Esq., Allerton, Liverpool, was third, there being no other competitors. The spikes seen generally were exceptionally good, and there was rather close running in the first and second prize exhibits. Among the finest varieties were Jacques, King of the Blues, Captain Boyton, Queen of Pinks, Koh-i-Noor, Rose a Merveille, La Grandesse, Lord Derby, Vierbank and La Victoire.

The class for twelve Hyacinths in pots brought nine collections, five prizes being offered. Here Mr. H. Prince, gardener to the Marquess of Salisbury, Hatfield House, Herts, was first, having excellent spikes. The second place was taken by Mr. Hitchman, gardener to A. Earle, Esq., Wavertree, Liverpool; Mr. G. Dyke, gardener to C. Watney, Esq., Watford, was third; and W. G. Woodham, Esq., Liverpool, was fourth. The best spikes in the first and second prize collections were Ivanhoe, Mr. Plimsoll, King of the Blues, La Victoire, City of Haarlem, Jacques, Boerhart and Lord Derby. It was interesting to note in this and the previous class that competitors came all the way from Liverpool to exhibit. In the class for six Hyacinths in pots there was but one competitor, Mr. J. Bushell, gardener to A. Hanson, Esq., Wavertree, being the exhibitor. A first prize was awarded.

The most striking class undoubtedly was that for four pans, each containing ten Hyacinths of one colour. Here the competitors were the Hon. Vicary Gibbs, the Duke of Portland and the Marquess of Salisbury, the prizes being awarded in this order. Certainly the spikes in the two exhibits from Aldenham and Welbeck were very fine; indeed, for size and purity the best in the show. Mr. Beckett had in his four pans City of Haarlem (primrose), La Grandesse (white), La Victoire (red) and King of the Blues. Mr. Gibson had, in place of La Victoire, Moreno (pink) with the other three. Mr. Prince's lot included Ivanhoe (deep blue), Jacques (pink), La Innocence (white), and La Victoire (red).

TRADE CLASSES.

Of these there were two—one for 200 Hyacinths in pots, not fewer than thirty-six varieties, and one for 200 Hyacinths in pans, ten of one variety in each. Both prizes (gold medals) were awarded to Messrs. R. and G. Cuthbert of Southgate, who had remarkably full spikes. The most prominent varieties here were similar to those already named.

AMARYLLIS OR HIPPEASTRUMS.

Messrs. Robert Ker and Sons offered good cash prizes for twelve pots of these flowers, one bulb in a pot. There was but one competitor, Mr. A. Cryer (gardener to J. A. Kenrick, Esq., Edgbaston, Birmingham), who put up a truly superb lot, the deep crimson, red and striped forms being of the finest. Such a class merited more competitors. We hope another year that others will exhibit these glorious bulbous flowers.

BULBS GROWN IN MOSS FIBRE.

Mr. Robert Sydenham offered no fewer than fifteen prizes in cash, in three classes, for specified bulbs grown for room or conservatory decoration in moss fibre and in vases. The first was one for six Hyacinths, singly, in 6-inch vases, to be selected from twelve named varieties. Here Mr. W. Howe, gardener to Lady Tate, Streatham, was first; Miss C. A. Michell, Cricklewood, second; Mrs. Dardier, Ealing, third; the Hon. Mrs. Guy Baring, Chelsea, fourth; and the Countess Cowper fifth.

With six vases of specified Tulips, Mr. Howe was again first, having Rose Grisdelin, Keizerskroon, Prince of Austria, Van der Neer, Duchesse de Parma, and Vermilion Brilliant. Mrs. Dardier, Mrs. H. Gordon Thompson (Potter's Bar) and the Hon. Mrs. Guy Baring took prizes also in this order. The remaining class was one for six 7-inch vases of Narcissi, Mr. Howe coming again first, the Hon. Mrs. Guy Baring second, Miss Michell third and Mrs. Dardier fourth. These competitions gave really excellent results.

THE GARDEN.

No. 2001.—Vol. LXXIV. March 26, 1910.

CONTENTS.

Alpine Flowers Under Glass 149

Notes of the Week
Forthcoming events 150
Potatoes and fruit in Great Britain in 1909 150
National Carnation and Picotee Society 150

Correspondence
Catching moles .. 151
Sweet Pea George Baxter 151
The best twelve Sweet Peas 151

Gardening of the Week
For the South and South Midlands .. 151
For the North and North Midlands .. 151

Greenhouse
Winter flowers at Forest Hill 152

Fruit Garden
Late dessert and culinary Apples 152
The Quince 153

Flower Garden
The fascination of the Crocus 153
Sweet Pea chat .. 154
Atkins's Snowdrop .. 154
Daffodil notes 154

Flower Garden
The Rock Pink 155
A useful hardy annual 155

Rose Garden
Sweet-scented Roses 155

Coloured Plate
New Polyantha Rose Jessie 155

Gardening for Beginners
Garden work week by week 156
How to propagate and grow the Potentilla 156
How to grow fine Brussels Sprouts .. 157
How to grow Vegetable Marrows .. 157
Cannas from seeds .. 157

The Town Garden .. 157

Fern Garden
Curly Ferns 158

Editor's Table 158

Answers to Correspondents
Flower garden 159
Rose garden 159
Fruit garden 159
Greenhouse 160
Kitchen garden .. 160
Miscellaneous 160

ILLUSTRATIONS.

Narcissus W. P. Milner 152
Crocus Korolkowi variety Dytiscus 153
One of the rarer Snowdrops: Galanthus Atkinsii .. 154
A beautiful hardy annual: Collinsia bicolor 155
New Polyantha Rose Jessie .. .. Coloured plate
How to propagate and grow the Potentilla 156, 157

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

ALPINE FLOWERS UNDER GLASS.

THOSE who wish to see a delightful little house of alpine flowers, grown either in pots or shallow pans, should visit the Royal Gardens, Kew, at the present season. There is, of course, in these beautiful gardens much else to occupy attention, but the one spot that should attract is the little, practically unheated, house in the "herbaceous" ground. It is, unfortunately, hidden away from beaten tracks, but it may be easily discovered by turning to the left on entering the main entrance from Kew Green and continuing along, taking the second turning on the left, then to the left again, and near the beginning of the ground mentioned this beautiful fairyland of flowers will be reached. It has never been more interesting than in the present year, and those responsible for the cultivation of the plants deserve all praise. We write of it now to bring forward to those who cannot afford expensive glass houses or elaborate gardens a way of having the most beautiful, rarest and most interesting alpines under close observation. The treacherous weather that we have so far experienced has prevented those in delicate health from strolling about the garden, seeking the flowers that for weeks past have been appearing in slow succession until the great burst of bloom in mid-March and April. In such a house as this the plants can be seen in comfort, and the flowers are unsullied by wind and rain. It is 40 feet in length and 9 feet in width, with flat stages at a sufficient height to bring the plants to the right position, and is unheated. There are a narrow gangway and shading to screen the flowers and visitors from the hot suns that need tempering even as early as March.

These notes are written in the hope that houses of this kind—simple in design and construction—will become more popular in our gardens, and they should have an influence in creating a greater interest in alpine flowers. As Mrs. Davidson well says in her excellent book, "The Unheated Greenhouse": "In such a house, throughout the winter and spring months, a succession of low-growing plants and bulbs indigenous to the alpine districts of all parts of the globe may be seen in happier circumstances and in better flower than would be possible out of doors in our changeable climate. A large proportion of such plants perfect their growth rapidly during the short but strong summer heat of their native *habitats*, and are almost ready to burst into flower again when their progress is arrested, sometimes quite early in autumn, by a thick fall of snow, which tucks them up safely for their long winter sleep. Months later, when the snows melt and there is no more danger to fear, they have little more to do than to open their bright eyes upon the world new-clad in greenery. Anyone who has had experience, for example, of a Canadian spring, will understand the sudden transformation from the winter shroud of snow to gay, green woods and plains enamelled with flowers. Transplant the denizens of such climes to our sea-girt Britain, and so far from being happier, they are sore bewildered and tried beyond endurance by the alternations of mildness and rigour to which they are subjected, and we who try to cultivate rare and beautiful species under these altered conditions too often meet with disappointment. Under the protection of a simple glass roof, however, the want of a snow coverlet is not so much felt, and such plants can go on without check from wind or weather to perfect their pure, stainless flowers."

This, then, is the object of the Alpine House at Kew, and space prevents a complete list being given of the plants in flower. One of the most charming families represented is that of the Croci, many of which are mentioned by Mr. Bowles in his delightful articles now appearing in The Garden. Such gems as these frequently suffer discomfort in the open air and their exquisite colouring cannot be properly discerned, but in the shelter of the Alpine House nothing is lost. One is astonished at their beauty, flower-gems of the early spring, and never seen to greater advantage than in such a house as we are considering. Then there is the little Narcissus cyclamineus, the beautiful Tulips, of which Tulipa saxatilis and T. pulchella were among those in full flower, Grape Hyacinths, the yellow Iris Danfordiæ and Chionodoxas. Things beautiful in leaf-colouring in winter, Saxifraga, Shortia, the Galax and Sedums, are there too. It is a house to visit on several occasions during the spring season, and such a house is to be much commended to our readers. It brings fresh interest and beauty to the garden.

If these notes have the effect of bringing the alpine house into greater popularity they will not have been written in vain. We urge this way of growing alpine plants as being within the means of most people, and the plants are not difficult to grow, less so, perhaps, than on the rock garden itself. We hope to illustrate not only the Alpine House itself, but some of the individual plants, as showing the strength of growth and flowering of both rare and common species. It is a pleasurable sensation to step from the garden into this house of colour and fragrance.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 23 to 31 inclusive.—Haarlem Jubilee Flower Show.

March 29.—Wood Green Horticultural Society's Bulb Show.

Photographs of small rock gardens.—We should be very much obliged if those readers who have photographs of rock gardens, small ones especially, would send them to us for publication with descriptive notes. We hope to illustrate some of the most beautiful places in which alpine flowers may be grown, and we feel sure our readers can greatly help us.

National Carnation and Picotee Society.—The annual exhibition in connection with the southern section of the above society is to be held at the Horticultural Hall, Vincent Square, Westminster, on July 26 next. The schedule, together with the annual report, is now being issued. We are pleased to note that the finances of the society are sound and that the society looks forward to doing much useful work. The list of prizes is a substantial one, and classes to suit all kinds of growers have been arranged. Copies of the report and schedule, price 1s. each, can be otained from the hon. secretary, Mr. T. E. Henwood, 16, Hamilton Road, Reading.

British Horticulture at the Japan-British Exhibition.—The Japanese Gardens at the Shepherd's Bush Exhibition are beginning to assume a very attractive appearance, and it is hoped that those portions of the grounds which are reserved for British horticulturists will be equally worthy of the inspection of visitors. A large portion of the available land has already been let, but there is still room for some more nurserymen and seedsmen, who can obtain plots for the purpose of displaying their methods of cultivating farm and garden plants, shrubs, lawns, &c. The plans and arrangements—which can be obtained on application to the Administration Offices, Wood Lane, Shepherd's Bush—in most respects follow the precedents of the Franco-British Exhibition, 1908.

Potatoes and fruit in Great Britain in 1909.—The official acreage and livestock returns of Great Britain just published by Messrs. Wyman and Sons, Limited, Fetter Lane, London, E.C., contain a vast amount of useful information. We quote the following relating to Potatoes and fruit: "A further extension of the area devoted to Potatoes is recorded for 1909, the increase of 13,356 acres (2·4 per cent.) bringing the total to 575,461 acres. This is the largest area since 1905, when 608,473 acres were cropped. The principal additions in England were in Lincolnshire (6,000 acres) and in Cambridge (2,300 acres), the relative change being 9 per cent. of the 1908 area in each case. The extent of land devoted to fruit of all kinds showed a further increase in 1909. The counties mainly contributing to the increase of 2,236 acres (2½ per cent.) in the small fruit crops were: Kent, which added 1,361 acres (5½ per cent.), Norfolk (423 acres), Cambridge (344 acres) and Suffolk (127 acres). In Worcester the area was reduced by 120 acres. Strawberries show an extension of nearly 1,250 acres, nearly 500 acres being added in Kent, over 300 acres in Cambridge, over 250 acres in Norfolk and over 100 acres in Hampshire. Of the 1,000 additional acres returned under 'Other kinds, including mixed areas,' nearly 900 acres were contributed by Kent. The more noticeable changes in the area under orchards were additions of 1,178 acres in Kent, 530 acres in Cambridge and 439 acres in Worcester. Allowing for the acreage of small fruit grown in orchards, the total acreage devoted to fruit crops in Great Britain in 1909 appears to be about 310,000 acres, the increase since 1908 being 2,200 acres."

Presentation to a gardener.—Mr. Robert Moss, formerly gardener to W. Rutherford, Esq., M.P., at Summerhill, Annan, N.B., and latterly with the firm of Messrs. Hamond and Douglas, nurserymen, Annan, being about to proceed to Canada to take up an important appointment there, it was thought a suitable opportunity by his friends to show their respect and esteem for him. He has, therefore, been presented with a purse of sovereigns and two substantial travelling trunks as a token of their goodwill.

Warwickshire Horticultural Exhibition.—The annual exhibition held under the auspices of the Worcestershire County Council is to be held at Leamington on August 24 and 25 next. The Worcestershire Challenge Cup is given for the cottagers and amateurs of any society in the administrative county, as well as valuable cash prizes. In addition there are quite a number of other valuable prizes offered for vegetables, flowers and hardy fruit. Full particulars can be obtained from the hon. secretary, Mr. H. Dunkin, 22, Guy's Cliffe Terrace, Warwick.

Snowdrops at St. Mary's Isle, Kirkcudbright.—Although late this season, the Snowdrops at St. Mary's Isle, Kirkcudbright, the seat of Captain Hope, R.N., have been very fine this year. They have probably been in the grounds since their introduction by the monks of the Abbey of St. Mary's Isle, founded by Fergus, and there are now myriads in the grounds in different parts, and spreading out into great masses in the most beautiful and informal way possible. They are all of the good form of our common Snowdrop, Galanthus nivalis, and are admired by many who have seen these flowers in large places and in great numbers.

The Royal Agricultural Society's Liverpool Show.—The annual exhibition of the above society is to be held at Liverpool from Wednesday, June 22, to Saturday, June 25, inclusive. As usual, there will be a horticultural section, and the schedule of this is now ready for distribution. We note the latest date for receiving entries is Saturday, June 4. As usual, there is a splendid list of prizes offered, these being for such subjects as groups of miscellaneous plants, collections of Orchids, Carnations, tuberous Begonias, cut hardy perennial flowers, Roses, Sweet Peas, vegetables and fruit. Full particulars can be obtained from the secretary, Mr. Thomas McRow, 16, Bedford Square, London, W.C.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Planting young Vines.—Perhaps some intending planter of Vines who has read the practical note on the subject by "E. H.," page 111 (and who has not cut his Vines back at the end of the year, as there advised), is rather at a loss what course to pursue in the matter. Personally I do not favour cutting back at this season, for the reasons named in the note referred to. However, the Vines may be planted and success will accrue if the following treatment is adopted: Allow all the buds to break into growth; select the strongest "break" near the eaves of the house to form the leading shoot and rub out all above it, but preserve all shoots below the leader. The leader may be allowed to grow without stopping; the auxiliary shoots must be stopped at the eighth leaf.—COLIN RUSE.

Fumigating for leaf-mining grub.—I noticed in THE GARDEN for March 5 (page 110) a note in reference to leaf-mining grub being exterminated by Auto Shreds Fumigant. Would you or some of your correspondents give me some information on the subject? for I fail to see how smoke affects them when they are securely cased in between the layers of the leaves and removed from where the entry was first made. I have taken the grubs from the leaves and put them in slightly diluted methylated spirits, and then they die hard; and what makes it more difficult, the head of the maggot is furthest from the entrance in nearly every case, and, consequently, more difficult for the smoke to penetrate. A reply or some information through the columns of THE GARDEN would be welcomed.—EDWARD F. KEMP, *Clapton*.

Tropæolum tuberosum.—Mr. S. Arnott, in a recent note on this Tropæolum, refers to its edibility when cooked. I have seen tubers offered for that purpose, but have no knowledge of their fitness for eating or how best prepared for the table. Presumably the tubers are at present far too scarce to be so utilised; but, assuming that they have really good edible value and a demand for them were created, no doubt plenty of them would soon be forthcoming. I have seen the species growing and flowering abundantly in some of our Surrey cottage gardens, where, no doubt, they find more of the warmth they need than they do in the North. The tubers are by no means unattractive in appearance, and if some expert in cookery like Mr. Eustace Miles would have some prepared for table, possibly they might "catch on," and thus in time the tubers would become a valuable article of commerce. In the list of uncommon vegetables invited for exhibition in one of the classes of the National Vegetable Society's show next September, fourteen kinds are enumerated, but these do not include tubers of this Tropæolum.—A. D.

Grevillea alpina.—This charming little bush is now in full flower in the open, and has been in bloom since the beginning of February. It possesses the qualifications of being easily grown and readily propagated, and of flowering abundantly. It is a native of the southern portion of Australia, where it is found over a wide area, but, as its name implies, it is confined to the mountainous districts. In its native country it is said to grow into a shrub several feet in height, but in England it is rarely seen more than a couple of feet high, with a like spread. It flowers in a very small state, little plants less than a foot in height being often covered with blossom. It has been grown in this country for about fifty years, but is still by no means common. The leaves are oblong, about an inch in length and covered with a greyish pubescence. The flowers are borne at the ends of the shoots in short racemes, each blossom being tubular at the base, but separating above into four petals. In colour they are cherry red, with the tips of the petals yellowish white. The petals all curling back at one side gives an interesting aspect to the flower. In the South-West it is quite hardy in the open, and in that district is well worthy of inclusion in all choice collections.

Iris stylosa failing to flower.—On page 110 Mr. C. G. O. Bond remarks upon the failure of Iris stylosa to flower in Surrey. Here in South Devon it has flowered very badly this season. As a rule, we get our first flowers in the last week of October and the plants remain in bloom until April; but this season the first blossoms did not expand until early in January, doubtless owing to the damp and dull summer. This was not the case merely in my own garden, but in every one in the district. In a neighbouring garden, where over 5,000 blooms were cut last season, none was produced until January in the present year. Since they commenced to flower, however, they have bloomed well, and dozens might have been picked any day from the middle of January until now, and the plants show no sign of ceasing to flower. Several plants that were shifted in November, and from which I thought I should get no blooms, have been flowering well since mid-January. Mr. Bond does not say if his plants are now bearing blossom, as ours are doing freely.—WYNDHAM FITZHERBERT, *Kingswear*.

Catching moles.—I read in a recent issue of The Garden of the best way to catch moles. I quite agree with what you say; one cannot do better than set the traps in hard soil. But it happens sometimes that a very troublesome mole appears in the garden, and I have had one myself. I set the traps as you have described, but every time I came to see them I found that the mole had filled them with soil. I did not know what to do, as it was ruining the garden from one end to the other. At last someone told me to fill the traps with some very fine soil, which I did, and the next time I went round I found that the pest was caught. The wrinkle was given me by an old mole-catcher.—Mount, *Ilfracombe.*

Sweet Pea George Baxter.—Perhaps this note is a little belated, but I would like to add my meed of praise to that grand variety George Baxter, mentioned on page 107 by Mr. Shaw. I had the pleasure of seeing this shown at Dunfermline Rose Show in July by Mr. Shaw, and I saw it again growing at Boquhan when on a visit to Mr. Shaw in the early part of August. I can fully endorse all he says about it, and, like him, I do not understand why it is not better known and, consequently, more largely grown. I have no hesitation in saying that this was the best dark maroon I saw at the leading shows last year. Apart from the fact that Lavender George Herbert is "ane o' oor ain bairns," grown side by side with Asta John at Boquhan it was superior to the latter in every respect. I consider that Elsie Herbert as grown and shown by Mr. Shaw is without a peer among picotee-edged varieties. I confess to a hankering after King Edward Spencer as a crimson. Then, again, Queen Victoria Spencer impressed me very much as I saw it grown and shown at a fashionable seaside town in the East of Fife. Grown alongside this variety was Apple Blossom Spencer, with which, as regards size, colour and stoutness of stem, Mrs. A. Ireland suffers in comparison.—S. H. S.

The best twelve Sweet Peas.—I am rather late in the day in compiling a list of the twelve best Sweet Peas in cultivation for exhibition, as requested by the Editor on February 12. To start with, there are two or three points on which I do not agree with my worthy friend "Spencer." First, is he not running rather close to the wind in his translation of the words "in cultivation"? What I mean is this: How few of those in the Sweet Pea world have had the pleasure of growing or of even seeing growing Marie Corelli, Nancy Perkin or Earl Spencer? Secondly, who would include in a class of twelve as dark a variety as Black Knight Spencer? Thirdly, he says, 'Etta Dyke stands so supreme." I should like to know what's in a name? After all, Etta Dyke is only the name given at shows for the best white Spencer the showman has at his command. I have seen several stocks of white Spencers which do not in their bud stage show a green tinge, as Etta Dyke invariably does, and they have more substance in both standard and wings, any one of which would pass as Etta Dyke on the show benches. I hold no brief for any grower, nor have I seen a copy of your valuable paper since the number of February 12, so that what I say and the list I give is quite unbiassed. White, the best white Spencer you can get; pink, Audrey Crier; blush, Mrs. H. Sykes; cream pink, Constance Oliver; blue or light lavender, Zephyr; crimson, The King or King Edward VII. Spencer; picotee edge, white ground, Elsie Herbert; picotee edge, cream ground, Mrs. C. W. Breadmore; cream, Clara Curtis; orange shades, Helen Lewis; lavender, Mrs. C. Foster; rose, Marjorie Willis or George Herbert. The arrangement of these must be left to the exhibitor, who should judge them from either standpoint, right or left. The exhibit that first catches the judge's eye generally takes a lot of beating, and first impressions are generally best.—Orobus Luteus.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

EARLY VINERY.—Thinning will demand close attention, and the berries must not be allowed to get too large or tight before commencing work. Keep all laterals pinched close and make a practice of looking over the Vines at least once a week.

Second Vinery.—The Vines in this house will now be in flower, and the atmosphere must be kept more buoyant to assist in the pollination. Free-setting varieties, such as Black Hamburghs, will only need to have the rods tapped with the hand two or three times during the day. This will distribute the pollen. The night temperature at this period should be 60° to 65°, allowing a drop of a few degrees if the nights are very sharp. Early Muscats that are in flower will require more assistance in pollination. A camel's-hair brush or rabbit's tail should be lightly drawn over the bunches. If pollen can be obtained from Hamburghs and used for the Muscats, this should be done. A higher temperature must be maintained when these Grapes are flowering; 65° to 70° at night should be given.

Plants Under Glass.

Chrysanthemums.—Plants grown to produce large specimen blooms will now be ready for repotting into 6-inch pots. A mixture of two-thirds loam and one-third well-decayed cow-manure, with a sprinkling of soot added, makes an excellent compost for this second potting. After potting place them in a frame, keeping them syringed and slightly shaded for a few days.

Begonia Gloire de Lorraine.—Take cuttings as soon as the shoots are large enough. Insert them in pots filled with light sandy soil and place in the propagating-case.

Cyclamen.—Seedlings that have been transplanted into boxes may be potted into 2½-inch pots. They require a light sandy soil, such as half loam and half leaf-soil, with plenty of sand added. Old plants that have finished flowering may have some of the water withheld and placed in a cool temperature.

The Flower Garden.

Sweet Peas.—Plants raised in pots and standing in cold frames should be fully exposed by taking the lights off the frames at every opportunity. The seedlings must be thoroughly hardened off to plant out in their permanent quarters next month. To prevent any damage by wind, put a small stick to each pot and one tie round the plant.

Border Carnations.—Plant out those that have been wintered in pots on a well-prepared piece of ground 18 inches apart each way. Beds that were planted last autumn will need the hoe lightly run over them occasionally.

Spring Beds.—Keep the surface of the beds stirred with the hoe where possible. All decayed leaves should be removed, as they give an untidy appearance if allowed to remain. All lawns must be kept brushed and rolled, and the edges of walks and beds trimmed with the edging-knife. Any bare places in the lawns may be sown at once, protecting the seeds from birds with a piece of netting.

Kitchen Garden.

Plants of Cauliflowers, Brussels Sprouts, Cabbages and Lettuces raised in frames must be hardened off and transplanted to a warm border. Sow outside Walcheren, Autumn Protecting, Michaelmas White and Winter Mammoth Broccoli.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
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FOR THE NORTH AND NORTH MIDLANDS.

Fruits Under Glass.

Melons.—These will now be making better progress, and constant care is necessary in pinching and tying the earliest batch. Later batches must be planted as they become ready. It is a great mistake to starve young Melon plants in small pots. If the bed is not ready for them, pot on into 5-inch or 6-inch pots, using a good sound compost and staking each plant to prevent buckling. Where Melons are grown in ordinary frames on a hot-bed, now is a good time to sow the seeds, as by the time they are ready for planting the sun will have gained considerable power and there will be less fear of a check. In cold, late districts the ordinary Melons often do but poorly in frames. In such cases I would recommend that such hardy sorts as Sutton's Open-Air and Cantaloupe be tried. It is useless to try these in the open air in the northern parts of these islands, but if given a hot-bed, very fine crops of excellent fruit may be had.

Peaches.—Continue disbudding, as advised in a former calendar, as this becomes necessary. A constant watch will be needed to see that green fly finds no lodgment, or much harm may be done in a very short time. Fumigate occasionally on a still, damp evening and entirely prevent the ravages of this pest.

Vines.—Tying, stopping and disbudding will be the principal work; but thinning will also be required in the earliest houses. Never leave this work until the berries are half-grown, as too many do. Begin by reducing the bunches to the proper number, always keeping in mind that a fair number will give as much actual weight as a very heavy crop, while the quality will in every case be superior. After thinning give a dressing of some approved chemical manure, such as Thomson's. If given according to directions and well watered in, the results will be entirely satisfactory.

Kitchen Garden.

Tomatoes.—Plants raised early in the year will now be ready for placing in their fruiting pots, boxes or beds. Use a good sound compost, but no farmyard manure unless the soil is very poor. For pots or boxes three parts good fibrous loam used in a rough state, one part half-rotten leaves, some old mortar rubbish and sharp sand will form a suitable medium in which to successfully grow fine Tomatoes. The addition of a 6-inch potful of bone-meal and the same of soot or wood-ashes to each barrow-load of soil is very beneficial. If for a bed, good sound turfy loam alone or with the addition of the bone-meal and soot is admirable. Pot very firmly and scatter round each plant a large tablespoonful of Thomson's Manure. Let this be given just under the surface. I find it much more satisfactory than farmyard manure.

Potatoes.—The planting of this important crop may now be pushed forward. There is little to be gained by planting too early unless some means of protecting from sudden frosts is always at hand. Dry straw is perhaps the best protection, but makes such a litter that few care to use it. Thick Spruce branches are excellent, and are easily put on and taken off.

Onions.—If the autumn-sown plants have survived, now is the time to transplant to rich ground. If carefully used, an ordinary dibber is as good a tool as any other for planting Onions. Some prefer to take out a deep notch with a spade, but it is a laborious method, and I fail to see that is possesses any advantages.

Broccoli.—Most growers have had very serious losses this winter in the Broccoli plantations. Where any survive, all dead leaves should be removed and the surface soil be well stirred, so as to encourage the plants to make healthy growth. A sowing of Broccoli may now be made.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE GREENHOUSE.

WINTER FLOWERS AT FOREST HILL.

DURING the last decade there has been a growing tendency to neglect those greenhouse plants which naturally give us their flowers in midwinter for the sake of forced plants which would, in the natural course of events, open their blossoms at a much later date. This is unfortunate for two reasons. One is that among those plants which naturally bloom in winter we find many beautiful colours and graceful forms which we cannot afford to neglect; and the other, that these plants can be successfully grown in a much lower temperature, and consequently with less expense, than others which have to be forced into flower with a considerable amount of artificial heat. Of course, we fully appreciate the beauty of many of these forced plants and recognise their utility in providing variety at a dull season, but, at the same time, express a hope that the older favourites which can be grown under more natural conditions will not be neglected. Happily there are signs that these winter-flowering plants are regaining their one-time popularity.

Foremost among these plants is the Chinese Primula, a plant that has been conjured with by many eminent hybridists since its first introduction to this country. Looking over the large stock of pedigree plants in Messrs. J. Carter and Co.'s nursery at Forest Hill a week or two ago, the thought came to us: What would the Chinaman, who only knows his Primrose by the wild plant, think of all these beautiful colours and immense flowers? Surely there is no need to seek artificial magic when we have such wonders of Nature before us. Messrs. Carter and Co. have for many years devoted much time and attention to the improvement of the Chinese Primula, and each time we visit their nursery there is something fresh to see.

The diversity in the size, shape and colour of the flowers is now well known; but have all our readers noted the quiet beauty and variety that is to be found in the foliage of these old-fashioned greenhouse plants? Plain-leaved, Fern-leaved, Palm-leaved, others with foliage resembling that of the Oak, and others, again, with crested leaves are all to be found, and the colours of the leaf-stalks vary from the palest green to dull red. Then there is the scent of the flowers, a fragrance that cannot be defined, but which brings to us memories of gardens of our childhood. The above features, which are often overlooked, coupled with the beautiful colours of the flowers and the diversity of form found in the large-flowered and stellata types, and the fact that the plants can be easily raised from seed and had in flower from November onwards through the winter, make out a good case why these Primulas should be more widely cultivated. We must now come to details. What varieties shall we grow? Undoubtedly the most brilliant of all that we saw at the Forest Hill nurseries is Crimson King, a veteran now, but still unsurpassed for its brilliant and glowing crimson. A batch of plants presented a picture of rare beauty and formed a pleasant contrast to the dull brown colours which predominated outdoors. A well-tried variety of this section is the white Elaine, a large-flowered, robust and very free-flowering variety that any-one can grow.

Among the newer large-flowered varieties Holborn Coral appealed most strongly to us. It has very large flowers of splendid substance, the colour being a true coral pink, and would in all probability look very charming under artificial light. The plants were very robust, and undoubtedly this is a good Primula in every way. Holborn Crested was another that called for special mention. The large pink flowers are beautifully fringed, and on that account possess a distinctive charm. King Edward (white), Vermilion, Carter's Blue and Carter's Ruby were other good sorts that we saw. Carter's Bouquet is a unique-looking plant, the flowers of which are produced direct from the base of the plant. Each is then surrounded with a leafy involucre so as to form a decided bouquet.

Among the double-flowered sorts there are some splendid colours to select from. Carter's Daybreak is a pretty variety, the colour ranging from apricot rose to terra-cotta. Snowflake is an early white; Carmine Empress, a very rich carmine sort; Lilac Queen, very free flowering; and Carter's Striped, a white flower daintily striped with rose. These are all excellent, and give us variety that is always welcome.

The stellata, or star-flowered, varieties are, perhaps, the most decorative of all. Free-flowering and of rather loose habit, the plants provide a feast of colour during the dull winter months. Here again the range of colours is a large one, and nearly every shade found in the larger-flowered sorts has been introduced to the stellata section. Salmon, crimson, lilac, blue, pink and pure white can be had separately, and the colour in each instance is good and distinct. The time for sowing seeds of the Chinese Primulas is now with us, and other batches may be sown at intervals till the end of June; hence those who desire flowers next winter should now make their plans accordingly.

Without the Chinese Primula the winter months, with regard to flowers, would be certainly wanting in gaiety, and, thanks to such firms as Messrs. Carter, the flower has been brought to a high perfection.

NARCISSUS W. P. MILNER. (*See page 154.*)

THE FRUIT GARDEN.

LATE DESSERT AND CULINARY APPLES.

SO much depends upon the space at command as regards the supply of these fruits in season from December to June, and it is not my intention to give a long list, as I know that amateurs require those varieties which, in addition to their good eating or cooking qualities, should also crop well. Most of the kinds advised are reliable when grown in bush form on the Paradise stock. At the same time, some of our best late dessert varieties do not always succeed in certain soils; for instance, Lord Burghley, one of the very best dessert Apples in the early spring months, at times is so subject to canker that it is difficult to recommend it, and yet the fruits are so excellent that it is equally difficult to leave it out of any selection.

DESSERT VARIETIES.

Adam's Pearmain.—An ideal variety for amateurs and of great value for its excellent bearing properties. A pretty conical fruit of splendid flavour and in season from December to March. This variety should be gathered late; it hangs late. In the Western Counties I have often seen it grown under the name of Hanging Pearmain.

Sanspareil.—A fruit not so well known as its merits deserve. It is very handsome and keeps splendidly. It crops freely and is of excellent flavour. In season from February till May if given cool storage; it is also a splendid culinary variety.

Barnack Beauty.—This is somewhat like the last-named as regards its free-cropping, handsome fruits, and is of great value to the amateur, as it keeps well and is not a gross grower. It bears in a very young state, and in a warm autumn the fruits are remarkable for their handsome colour and good quality.

Scarlet Nonpareil.—A well-known variety and one most suitable for amateurs on account of its medium growth, handsome fruits and good keeping qualities.

Claygate Pearmain.—A fruit that partakes largely of the Ribston flavour, by no means a strong grower, but hardy and a good bearer. The fruits in some soils are much russeted and the flesh is rich, sweet and juicy; in season from December till March.

King of Tompkins' County.—An American Apple of great excellence, but a variety that requires a warm, well-drained soil. I place it in this list on account of its excellent flavour. It keeps well into the spring, is a large fruit, and also cooks well.

Duke of Devonshire.—A compact grower and of first-rate quality; a heavy cropper and a fruit that should be left as long as possible on the tree. The fruits are much russeted, sweet, and keep well into May if given cool storage.

Allen's Everlasting.—An old variety but of great excellence, and one of the best late dessert sorts we have. The fruits should be gathered as late as possible. I have, with cool storage, had no difficulty in keeping this variety till June. It is a flat fruit of splendid flavour and the tree a compact grower in most soils.

COOKING VARIETIES.

Here the choice is somewhat wider, but my list will be brief.

Newton Wonder.—This is invaluable for use in the spring. It cooks well and is a solid, handsome fruit. One of the very best, will keep well, and should be in all collections, as it is a grand cropper.

Bramley's Seedling.—This is excellent when grown as a standard. It is a valuable late variety, in season from January to April, and will thrive in a heavy or poor soil. A large and solid fruit.

Lane's Prince Albert. — An ideal amateur's variety, as it fruits when others fail, and is what one may term an all-round good Apple. It grows without any special attention, is by no means gross, and is a certain cropper and a handsome fruit. There is probably no other variety that has made such headway since its introduction. It keeps well into April, and should be gathered late and given cool storage. It blossoms late and is one of the very best for a small garden.

Sandringham.—For small areas I have a great liking for this variety. It does not crop like the last-named, but is a good bearer and gives very fine fruits of splendid quality; in season from January to March.

Annie Elizabeth.—This is a strong grower and very much after the Blenheim type, but a splendid Apple when the trees have attained a good size. It keeps well, and the handsome fruits are in season from January to April. It makes a fine standard or orchard tree.

Wellington.—This well-known variety grown as a bush on Paradise stock is excellent. I do not advise it on heavy, wet land. It is a great favourite in the kitchen.

Alfriston.—This is a very valuable late variety. It does well on the Paradise stock, making a close, sturdy growth, and is one of the best late culinary Apples grown. It is in season from November till April and does well in thoroughly drained soils, but is inclined to canker in heavy, wet land. A large fruit and generally a good cropper.

G. WYTHES.

THE QUINCE.

CONSIDERING the popularity of this fruit for the making of jelly and jam, as well as its usefulness for flavouring, it is surprising more trees are not grown. Of all fruits this is much the scarcest. At the same time, Quince trees do not flourish in the same way as other fruit trees. They are of slow growth, and where the soil is heavy and retentive of moisture the trees are invariably found much infested with lichen and of puny growth. Under such conditions a tree does not make much progress in twenty years, except, of course, by much attention in supplying the roots repeatedly with stimulating food and spraying the branches with a winter wash to keep them clean.

E. M.

THE FLOWER GARDEN.

THE FASCINATION OF THE CROCUS.

SPRING CROCI.

(Continued from page 142.)

MR. BOWLES continues his interesting article on these beautiful flowers.

2. *Pallidus.* — Flowers larger, globose, sulphur or white, variously marked outside with lines, featherings or suffusions of bronze, purple, grey or blue; anthers, yellow, generally with black barbs; stigma, rich scarlet. I believe these are the Mount Olympus forms; they are the most fascinating of all to raise seedlings from, and apparently inexhaustible in powers of variation, and I hope have a great future. The beautiful blue and white form known as Warley var. is one of them, and was raised by Mr. John Hoog at Haarlem.

I think a lilac or purple chrysanthus may ere long appear among this race, in spite of its seeming such a contradiction in terms. [Since writing the above several lilac forms have appeared among this season's seedlings. — E. A. B.] Maw called one variety cærulescens, but the inner surface of that is white.

3. *Fusco-tinctus.*—Flowers with pointed segments, yellow, variously feathered, striped, grained or suffused with brown or grey; anthers, dark grey or nearly black, no black spots on the barbs; stigma, yellow.

A very hardy and free-seeding race, but not so attractive either in form or colour as the others. I have hopes of some pale seedlings with markings of a rosy tendency.

C. biflorus I write in haste, that I may be led away from my swannery. This is the most widely spread of all, so naturally it varies greatly. The best-known form is the large white-grounded one with five dark purple lines outside, called the Scotch Crocus. It is believed to grow wild in South Italy, but has been known for many years in gardens and has become sterile or almost so, after the manner of other garden forms, and I think we want further evidence as to its being identical with any wild form.

The ordinary Italian form is somewhat smaller, yellowish outside, marked with three deep purple lines and pale lavender internally. It varies in wanting the purple lines, and is thus known as var. estriatus. From seeds of this last I occasionally raise the striped form, but very rarely, and the striped form gives me every now and then a rather smaller variety, pure white except for the yellow outside of the outer segments, which regularly flowers some weeks after its parents. I believe this albino form to be the same as one that is said to occur spontaneously in the gardens of the Villa Borghese at Rome, but have not yet been able to procure it from thence.

The best white form comes from Dalmatia, and is called var. Weldeni. It is a fine thing, more globose in shape, and varies greatly from pure white through forms slightly powdered with lilac specks outside to an extreme form known as var. Alexandri, in which the outer segments are often deep purple except for a narrow white margin.

I have a race of seedlings here in which the ground colour is lilac, and in the last few years have found some of a soft sulphur tint that look as though chrysanthus had affected them.

There is a strange little gem known as biflorus var. Pestalozzæ, one of the smallest of all Croci and nearly pure white. Maw thought it an albino form of another; but I have raised many seedlings and so far have seen no sign of its reversion, and I feel inclined to allow it specific rank. It has a black mark on the filament just above its insertion on the segment, which I have never noticed in any other Crocus.

Of rather rarer spring species I may mention Balansæ, orange, and varying in the outer markings, some being beautifully feathered, but the best of all suffused with rich madder brown, almost purple in a young bloom. The contrast in a half-opened one is very wonderful, and, as it is a good doer and free seeder, every owner of a rock garden should expend half-a-crown and start a dozen in a sunny nook.

Korolkowi, from the Far East, has two good points—it flowers early and is of a peculiarly brilliant shade of yellow. It varies much externally in the extent of brown or purple freckling. The latest importation of its large, flat corms, which look more like those of a Gladiolus than a Crocus, came from Bokhara, and the vigour of this race will, I hope, prove sufficient to make it a useful species. I have raised some charming seedlings from them. One has the outer segments externally deep brown with only a narrow margin of yellow, and in colour reminds me so much of the large water beetle, Dytiscus marginatus, that I call it var. Dytiscus.

Etruscus, buff outside, lavender within, is pretty, and requires replanting oftener than most species, or it becomes crowded and poor and the flowers misshapen. Ancyrensis might easily be mistaken for chrysanthus, but lacks the black spots on the barb of the anther and has a strongly netted corm tunic. It is very early, a free seeder, and has suddenly started to vary with feathered and blotched exterior. Candidus, both the white type and its yellow

CROCUS KOROLKOWI VARIETY DYTISCUS.

variety subflavus, are distinct in appearance, as the leaves are wider than in any other vernal species. I find it likes heavier soil than most others.

This is by no means an exhaustive list of the vernal forms, but I think it includes the most effective from a garden point of view.

Waltham Cross. E. Augustus Bowles.

SWEET PEA CHAT.

The Best Dozen.—It is generally assumed that it is the exclusive prerogative of the ladies to say "I told you so!" I feel, however, that I must poach upon even their strict preserves in this particular instance. When the fiat came forth that the best dozen varieties were to be named, I essayed the task in the full knowledge that trouble would come out of it, and it has. In one respect the whole thing has backed up my expressed opinion, which is that there is not, and never will be, such a thing as a best dozen, for the simple reason that such a hard-and-fast line would not allow the slightest margin for personal tastes and predilections in regard to colour and form. The result is further satisfactory, both to the autocrat of the Editorial sanctum and myself, since it has proved to demonstration that the Sweet Pea column is read, and that the smallest deviation from the straight path will bring criticism. This is precisely as it ought to be, and one may sincerely hope that it will continue. In leaving the subject I should like to congratulate each compiler of a list—there were several others equally as good for which space could not be found—and to say that in every case the selections were quite as good as, and perhaps some superior to, my own. I think that there was only one correspondent who went even a little astray, and that was the one who asserted that the National Sweet Pea Society might possibly consider Elsie Herbert and Mrs. C. W. Breadmore as too-much-alike. Perish the thought. The society may do funny things, but it would not bracket a white with a cream ground, even though the marginal colouring might be identical.

Clumps *versus* Rows.—Opinions still differ as to whether the finest blooms are produced by plants grown in rows or those in clumps, and it is possible that the majority would vote for the latter. There can be little doubt that when the Sweet Pea commenced to rise on to its present marvellous era of prosperity the system of growing in clumps had much to recommend it. The plants had far more fresh air and space, and, consequently, they yielded superior flowers to the bulk of plants in rows; but, after all, this was largely due to the fact that previously the plants had not been properly treated, since they were commonly packed so thickly in lines that it was impossible for perfect development to follow. Thus the comparison was scarcely a fair one, because it was between a well and a badly cultivated specimen. Now things have changed, and all the world recognises that it is imperative that plenty of space shall be accorded if anything approaching to satisfactory results are to accrue; and with the appreciation of this indisputable fact the conclusion is reached that there is absolutely no difference in quality or quantitv of bloom from plants in clumps or in rows. Each grower should adopt the system which meets with his personal approbation, or which will prove the more beautiful in the adornment of the garden. From an artistic point of view I should favour clumps, each to contain one variety only; but there are obviously many circumstances and conditions in which rows would be infinitely preferable.

Sowing Seeds.—At the time of writing the weather is more favourable for all outdoor gardening operations than it has been throughout the spring. It is true that on strong lands the bottom is still sodden, but the sun is daily gaining power and the keen winds are playing their part in bringing about a more amenable state. Thus it is to be hoped that all readers are now able to safely get upon their ground with a view to breaking down the top soil, so that a perfect seed-bed, which so markedly favours ultimate results, may be secured in time to sow seeds by the end of the month. Broadly speaking, about the end of the third week of March is the ideal time for outdoor sowing in the Southern and Home Counties, while in the Midlands and North it will be the end of the month or early in April. But when all is said and done, the fact will remain that each grower must exercise his common sense and sow his seeds when all the conditions of soil and weather are good, and it is obvious that it is most improbable that the date will be exactly the same two years in immediate succession. There must be no rule of thumb business in the sowing of Sweet Peas out of doors, or any other seeds for the matter of that. Spencer.

ONE OF THE RARER SNOWDROPS: GALANTHUS ATKINSII.

ATKINS'S SNOWDROP.

One of the finest of all Snowdrops—and that is saying a great deal now that we have so many handsome selected and seedling forms—is the variety of Galanthus nivalis Imperati called Atkinsii. It is a tall and handsome Snowdrop, with bold and shapely flowers of the greatest purity and beauty. There are two varieties cultivated under the same name, and probably both came originally from the garden of the late Mr. Atkins, Painswick. The one shown in the accompanying illustration is the finer of the two, and is that sent out originally by Mr. Barr in 1875 at 2s. 6d. per bulb. The late Mr. F. W. Burbidge informed us that the late Mr. Wheeler of Warminster was the only trade customer who purchased it, and that it died out with Mr. Barr at Tooting, but grew well at Warminster. It is well that such a fine plant has been preserved, and its wider distribution is to be desired.

The other Atkinsii was sent out by Messrs. Backhouse of York, and is a grand Snowdrop also. It has, however, the defect of frequently coming with an additional outer segment and of occasionally giving misshapen blooms. When it is open the additional segment is no drawback, as the flowers look like white butterflies poised on a stalk. This and other forms of the Imperati section of Galanthus nivalis will grow in the same soil and conditions as the common Snowdrop, and, although from the South of Europe, do not appear to be less hardy than other Snowdrops.

Dumfries. S. Arnott.

DAFFODIL NOTES.

Some More Good Things for Pots.—During the whole of the second half of February I have been enjoying a succession of lovely pots or pans of W. P. Milner. I have on more than one occasion written in praise of this charming variety for indoor work, for the truth is that I never can see it in my study or hall without feeling impelled to tell others about it. It is so graceful, so dainty-looking and such a delightful change from the yellows that have preceded it in the earlier days of the year that it must have a warm welcome wherever Daffodils are appreciated and where means for their early culture are available. This present year it seems to have done better than ever; so much so that I have had a small oblong-shaped pan photographed, with the result that may be seen on page 152. There is no difficulty in having it in bloom on the date above-mentioned, as it responds readily to mild forcing. It grows (when well done) from 12 inches to 15 inches in height, and the flowers, when they have been open a few days, become an almost pure white. It is fairly free, and with a cool living-room temperature lasts a long time in perfection. As a contrast I would mention Glory of Leiden. Connoisseurs are inclined to turn up their noses at what they call its streaky perianth, and undoubtedly it has this appearance. But for all that it is a popular flower. Many people for some reason or another single it out as the one they like best when they see it in a group at some spring show. As their warmth in its favour undoubtedly sent the price up a few degrees last season, I determined to give it a good trial in pots. The result has been highly satisfactory. Its broad, deep yellow, massive-looking trumpet is surrounded by a sort of saucer-shaped perianth of the palest primrose. Mr. Felton, the

well-known florist of Hanover Square, says that as "a decorative flower it surpasses all others in its section"; high praise indeed from one so well qualified to judge—a remark which I quote to add emphasis to my own personal recommendation. Golden Spider is a brand new large trumpet which is not yet in commerce, but of which a few bulbs have been very kindly sent me for trial. It is a beautiful flower, of the same shade of sulphur yellow that we get in John Nelson and Captain Nelson. On this account alone it would be of value, for as far as I know, with the exception of a few new ones, we have nothing but these of this particular hue. It has a fine yellow trumpet, broadly expanded at the apex, of immense substance. The perianth in shape is just a little like Glory of Leiden, with the addition of a pleasing twist, after the manner of Princeps, on the three inner segments, while in colour it is many shades paler than the trumpet, but of the same lovely tone. I have grown it side by side with Golden Spur, which were supplied me by the same firm, and it came into bloom about five or six days later. I should mention that it is a flower that grows. When it is opening it looks as if it would have a floppy perianth, but as it ages this look wears off, and when full blown it is most distinct and taking, both in colour and shape. Mme. Plemp is a very large bicolor. I do not think I would like it in any ordinary-sized pot, but for massing in big pans it is very fine. Curiously enough, its rough, uneven perianth goes well with the general appearance of the whole mass and helps to set off its magnificent — if somewhat ill-shaped — deep yellow fluted trumpet.

Pots and Pans *versus* Vases. Daffodils look best growing. Even the most pleasing arrangement in vases never looks so well to me as ordinarily well-grown plants in pots or pans or bowls. We never get the flowers and the foliage in quite the same relative position as Nature places them in when we arrange them ourselves. Still, for very many nothing is practicable but cut blooms, and even if we have plenty growing there are times and places where and when they must be used. The ideal vase should contain only one kind, and only Daffodil foliage should be used. Mixtures are seldom effective, unless it is such a case as where a vase may be made up of different Leedsii varieties, such as Duchess of Westminster, Minnie Hume, Mrs. Langtry, &c., *and no other types.* Trumpets and cups do not harmonise; at least, as my old gardener so often says to me, "that is my foolish opinion."

Joseph Jacob.

THE ROCK PINK.

A little Pink unfamiliar to many is Dianthus petræus, the Rock Pink, one of the most pleasing of the smaller species, of which there are many. It grows only some 6 inches high, and gives pretty, grassy foliage and pleasing rose flowers, single but attractive. It forms an excellent subject for the rock garden, where, slightly hanging over a large stone, it shows its character to perfection. But there is a rare double variety, called D. petræus flore-pleno, which deserves a special note. It is one of the most charming of the tiny double Pinks we have, delicate, and far from clumsy in its doubling, while the flowers are pure white. It is worthy to be grown anywhere, and, although scarce, is not expensive when it can be procured. The single one is increased by seeds or by cuttings, and the double one by cuttings, just as in the case of the common Pinks of gardens. A sunny position in gritty, light soil is the most congenial to these flowers.

Dumfries. S. Arnott.

A USEFUL HARDY ANNUAL.

The annual shown in the accompanying illustration is not met with very frequently, and yet it is one that is of considerable value in the flower garden and also for cutting. It forms branching stems about 1 foot high, and these are clothed with small, oval-shaped green leaves and flowers of a white and rosy purple hue. In shape the flowers resemble somewhat those of the Antirrhinums. Like those of other hardy annuals, the seeds can be sown outdoors where the plants are to flower, a good time being the end of March or early in April. The plant is an ideal one for forming clumps towards the front of the herbaceous border, say, where early-flowering bulbs have finished flowering. The young seedlings should be thinned early so that they stand 3 inches apart, from eight to a dozen forming a good-sized clump. H.

A BEAUTIFUL HARDY ANNUAL: COLLINSIA BICOLOR.

THE ROSE GARDEN.

SWEET-SCENTED ROSES.

While the planting season is still with us it may not be out of place to call attention to a few Roses that are more than usually sweet-scented. There is great variety of perfume among Roses. In Socrates and Catherine Mermet I detect the strong fruity scent of ripe Nectarine or Peach. Souvenir de Maria de Zayas reminds me strongly of Parma Violets. Polyantha Simplex and Perpetual Thalia possess strong Hawthorn perfume, and Lady Penzance, with the Austrian Briars, have a scent peculiarly their own, and which I cannot compare to any other. One almost instinctively raises a Rose to smell, and it is disappointing to find such beautiful varieties as Frau Karl Druschki, Baroness Rothschild and Margaret Dickson entirely devoid of scent. Here are a few of the sweetest: Viscountess Folkestone, Mme. Ravary, The Dandy, American Beauty, Mme. Abel Chatenay, Ards Rover, Dr. O'Donel Browne, Devoniensis, Souvenir d'un Ami, Mme. Pol Varin-Bernier, Mrs. W. J. Grant, La France, Lady Battersea, Lady Waterlow, Lord Macaulay, General Jacqueminot, Gardenia, Beryl, Heinrich Schultheis, Grüss an Teplitz, Conrad Ferdinand Meyer and Nova Zembla. A. P.

COLOURED PLATE.

PLATE 1396.

NEW POLYANTHA ROSE JESSIE.

The value of the dwarf-growing and free-flowering Polyantha Roses for bedding purposes is now fully recognised by most lovers of Roses, and many will remember the introduction, about three years ago, of that charming bright red variety named Phyllis. This Rose was a decided advance on others of its type, the colour being brighter and not affected by the sun. The coloured plate presented with this issue represents still another advance in this class of Roses. The variety there depicted and named Jessie is a sport from Phyllis, and originated in Messrs. H. Merryweather and Sons' nursery at Southwell, Notts. The plate has been prepared from a colour-photograph of flowers kindly sent us by Messrs. Merryweather. The colour may best be described as a glowing cherry crimson, and this is not affected by the strongest sunshine. The plant is a free-growing one, and flowers profusely over a long period. We saw a good batch of it growing in the Southwell Nurseries last summer near others of its class, and certainly Jessie and Phyllis were the best of them all. When shown at the Temple Show last year by Messrs. Merryweather the variety Jessie received an award of merit from the floral committee of the Royal Horticultural Society, and with this hall-mark of excellence it is safe to predict a bright future for this charming little Rose.

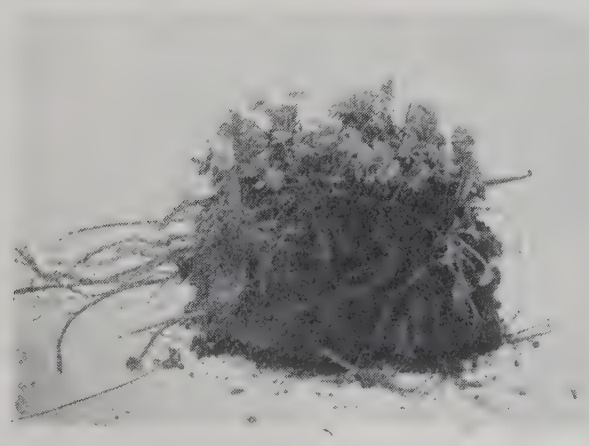
GARDENING FOR BEGINNERS.

SOME USEFUL BORDER PLANTS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—During suitable weather sowings to follow those put in earlier should be made of such crops as Radishes, Lettuces, Parsnips, Carrots, Onions, Peas and Broad Beans. Of course, the quantity to sow must be regulated by the demand that is likely to arise; it is useless sowing a lot more than is likely to be wanted, especially where space is none too plentiful. The seeds of all the crops mentioned above may now be sown more thinly than they were at an earlier date, as germination will take place more quickly, and consequently there will be less risk of loss by decay or by the attacks of birds, mice, slugs and similar pests. Cabbages that were planted last autumn are now growing freely, and will be considerably benefited by frequent hoeings. This admits air to the roots, which is greatly appreciated by the plants. Any that are running to seed should be pulled up, and if greens are scarce the tops may be used in the kitchen. It is useless to allow Cabbages to remain once it is seen that they intend to go to seed instead of hearting properly. An application of finely crushed nitrate of soda, half a teaspoonful to each plant, will greatly assist growth and give the plants a good colour; it must be scattered round, not on, the Cabbages. All the above cultural remarks apply with equal force to autumn-planted Lettuces.

Fruit Garden.—Peaches and Nectarines and the earliest Plums and Pears on walls will now or shortly be opening their blossoms, and if a good crop of fruit is desired, precautions must be taken to avoid the essential organs of the flowers being injured by frost. With this end in view, some old fish-netting, used in two thicknesses, should be hung over the trees, but arranged so that it does not touch the blossoms, or they will be bruised and injury done in that way. Fish-netting possesses the advantage of admitting air freely to the trees, and at the same time is sufficient protection against spring frosts. It can be purchased very cheaply and comes in useful for many purposes in the garden. Any fruit quarters that have not yet been forked over and made tidy for the summer should have attention in this respect without delay. It is not yet too late to plant Raspberries, although,



1.—AN OLD PLANT OF ONE OF THE BETTER HYBRID POTENTILLAS IN EXCELLENT CONDITION FOR DIVIDING.

of course, the work would have been better done at an earlier date. Select well-rooted, sturdy canes and plant either in clumps of three or singly 18 inches apart in rows. These new canes should be cut to within 9 inches of the soil when planting is finished.

The Lawn.—Where not already done, no time must be lost in giving the grass plot its first mowing. Nothing is gained, and much may be lost, by allowing the grass to become overgrown and ragged. Many prefer to do this first cutting of the year with a scythe, and this system has something in its favour. Providing, however, that the machine is in good condition, it may be done with the mower in a satisfactory manner. The grass which has passed through the winter is naturally tough, and a blunt and badly regulated machine will pull much of it out by the roots. Set the cutting blade at a high angle and take the precaution to thoroughly oil all bearings before using the machine. During the next few weeks will be a good time to sow grass seeds. Where bare patches are present in the lawn, rake the soil up thoroughly with an iron-toothed rake and scatter the seeds thickly in the crevices thus made. Then cover with about half an inch of finely sifted soil and roll or beat firmly. Birds are very fond of the seeds, and must be kept off by means of netting or black cotton until the young plants appear.

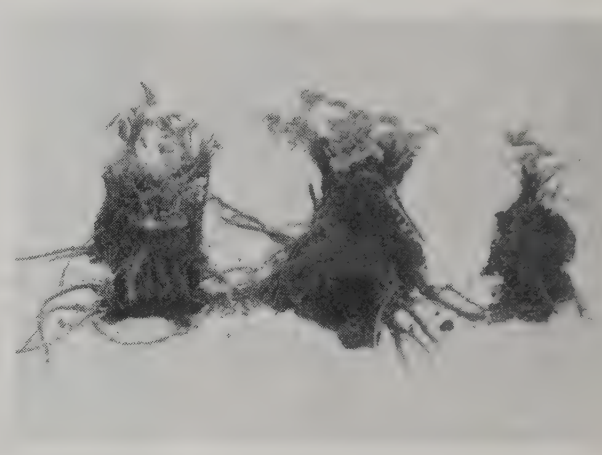
Flower Garden. — Pansies, Carnations and similar hardy plants which have been kept in frames during the winter to protect them from excessive rains may now be planted out in their permanent quarters. Providing they have previously been thoroughly ventilated, they should be quite sturdy and will receive little, if any, check. Pansies like a rich soil, and, if possible, some old, well-decayed manure should be forked in a few inches deep where they are to be planted. The many fibrous roots which these plants make will quickly find this, and large, well-coloured blooms and robust foliage will be the result. The soil for Carnations, if at all heavy, should have some coarse sand, road scrapings from gravel roads, burnt earth, wood-ashes or any similar material added. In any case, no matter what the soil may be, unless it is strongly impregnated with lime, a dressing of old mortar rubbish, one peck to a square yard, will be much appreciated by Carnations. The present is a good time to plant bulbs of Hyacinthus (Galtonia) candicans, a stately plant, the tall stems of which are bespangled with pearly white, bell-shaped flowers. The bulbs can be purchased cheaply, and room should be found for a few in every garden. Plant them 6 inches deep and, if in the herbaceous border, in clumps of three or five bulbs. In heavy soil place some coarse sand beneath and around the bulbs before filling in with the natural material. A. A.

HOW TO PROPAGATE AND GROW THE POTENTILLA.

THE Potentilla is a distinctly showy hardy perennial, and it is difficult to understand why it is not more largely grown than is now the case. The plant is commonly known as the Cinquefoil, and is worthy of a conspicuous position in all borders of hardy plants where a really attractive display is desired. It is a large family of plants and is represented by many beautiful species. There are plants of alpine character, and others of ideal form for border culture. Hybridists have produced some handsome double-flowered forms. These have given us a race of plants that come into flower in July and continue in bloom more or less until the autumn. When the sun is at its height these plants appear to be at their best. Individual plants are interesting; but to see the better Potentillas to real advantage, they should be grouped in masses in sunny borders. The groups should vary according to the size of the border, say, from three to a dozen plants in each group.

The plants are easily recognised by their Strawberry-like leaves, which vary in colour from silvery grey to bright green. It is important that the plants should be staked and tied before they get out of control, but this should be done in somewhat loose fashion. Opinions differ as to the soil in which they should be planted; some growers assert that the plants will do very well in poor soil, but in my own experience the plants have done exceedingly well in quarters that have been deeply dug and well manured. The plant represented in Fig. 1 has been lifted after being three years in the border. An old plant of this description may serve the purpose of enabling the beginner possessing the necessary facilities to increase his stock of plants. The division of the old plants is an excellent and simple means of raising stock, and this may be done in October and November and in March and April.

These old plants may be dealt with in two ways, viz., they may be divided into three or



2.—THE PLANT IN FIG. 1 DIVIDED INTO THREE PIECES. SUCH DIVIDED PIECES MAKE BEAUTIFUL PLANTS THE FIRST SEASON.

four pieces, or into individual crowns at the will or convenience of the grower. If quick results are desired, the plants should be divided into pieces such as are represented in Fig. 2. This is the same plant as seen in Fig. 1 broken into three pieces. Each of the latter will make a splendid plant before the summer is over, and while they are developing this trio should flower satisfactorily. These divided pieces ought to be planted where they are to flower, and if planted in light, deep soil in an open, sunny position they will do well. They should be planted about 15 inches or more apart, when they will render a good account of themselves.

Fig. 3 is a good illustration of an individual crown or growth. Many such pieces may be obtained from an old plant of the character represented in Fig. 1. Some of the individual crowns will be less promising than the one seen in the illustration. Pieces of this description I prefer to plant in a cold frame. Place the frame on quarters that have been dug over and the soil well broken up, and incorporate quite freely coarse sand or road grit, and if a small quantity of leaf-mould can be added, so much the better. Those who have no cold frame may use deep boxes as represented in Fig. 4, using soil of a similar kind to that prescribed for the cold frame. The box may be covered with an old window-sash, if necessary, although the crowns will root satisfactorily without it. Plant the crowns in rows, observing a distance of

4 inches to 6 inches between the crowns and a similar space between the rows.

Good double-flowered Potentillas are the following: W. Rollison, chestnut, suffused orange; Congo, dark maroon and yellow; Vase d'Or, canary yellow; Fantasie, scarlet, suffused and edged gold; Mordorée, glowing crimson, shaded gold; Vulcan, dark velvety red; M. Rouillard, rich yellow and orange; Victor Lemoine, vermilion, striped yellow; Toussaint l'Ouverture, velvety crimson maroon; Emilia, very dark crimson; Gold Kugel, brilliant yellow; and purpurea plena, deep rich red. Some of the species should also be grown. D. B. C.

3.—AN INDIVIDUAL GROWTH OF POTENTILLA.

HOW TO GROW FINE BRUSSELS SPROUTS.

Undoubtedly the best early Brussels Sprouts are obtained from plants that have been raised in boxes under glass in the spring; but sometimes the plants so raised are not the most remunerative as regards quantity of produce. The fault lies in the treatment of the plants while they are quite young. It is such a very easy matter to grow long, lanky and weakly plants in frames at this season.

I well remember the case of a young gardener—at least, he posed as a gardener, and certainly had the ambition to rise to a responsible position in the profession he intended to follow. He was young then, but he succeeded through being always observant and ready to learn. At that time he had some young Cauliflower plants under a cloth fixed on sticks. The weather, in early spring, was bright and warm. An experienced gardener advised him to remove the covering. "Yes, when I have had my dinner," he replied. The gardener said, "And in the meantime your plants are spoiling." The youth realised the truth and forthwith exposed his plants.

Now I know that many beginners coddle their young Brussels Sprouts too much at this season, with the result that many of the lower leaves are lost and also sprouts from that part. As the latter are borne on the stem and mature from the base upwards, it means that the crop will be later and lighter.

Undue exposure after the plants have been grown in a rather warm temperature must be avoided also, as it would have a similar bad effect on the leaves. The plants should be gradually hardened rather early, and then planted in a nursery bed in a somewhat sheltered spot outside prior to their being put out in their permanent quarters. Short, stocky specimens are obtained in this way, and such are far superior right through the season to those that are unduly drawn up.

HOW TO GROW VEGETABLE MARROWS.

Many inexperienced persons fail to secure a satisfactory crop of Vegetable Marrows through following obsolete methods—the building up of dry heaps of straw and covering them with a thin layer of soil only. While the plants are small they grow apace and appear to be doing remarkably well, but when the trying time comes—the fruiting stage—they fail because they lack rooting space.

Hundreds of Vegetable Marrow plants cast their fruits while the latter are just forming when this system of cultivation is followed. A severe check is given owing to the roots becoming too dry, and even copious waterings will not avail much when the roots have permeated the top portion of the straw bed. The water runs off without being as beneficial to the roots as it should be. Rich and timely top-dressings mitigate the evil to some extent, but no effort will avail as much as the first and right effort—that of growing the plants in a substantial rooting medium.

Vegetable Marrows do very well indeed in the open quarters of a garden or even a field; but for early use the position should be a nice sheltered, sunny corner. Make a good beginning. Too often one sees the best portion of the crop forming too late in the season, when the result is small, yellow, undeveloped Marrows, or half-grown ones spoiled by early frosts. Make good use of the cool frame now. In this the young plants may be grown in flower-pots, which I prefer to boxes on account of the convenience of planting when the time comes.

In the first place, the cultivator should sow a single seed in a 3½-inch pot in very good loam and sweet leaf-soil. When the seedlings have attained a height of 3 inches and formed two rough leaves, repot them into 6-inch pots. This work must be done about the second week in May. In the compost used then put some rotted manure. Provide good drainage and do not overwater the plants. During the latter part of May remove the glass light in the daytime and admit plenty of air at night. On June 5, or not later than June 10, put out the plants, which should by this time be large, strong and healthy, and quickly grow into a fruiting state. If the natural soil is of good depth, put on a thick coat of manure and dig it in before planting the Marrows. It is a good plan to lay down a few Pea-sticks for the haulm to rest on. Long Green, Long White, Moore's Cream, Pen-y-byd and Prize-taker are excellent varieties.

CANNAS FROM SEEDS.

The seeds of these plants take a long time to germinate, especially when they are sown very early in the new year and where there is not much artificial heat. At the present time a novice may succeed in raising a nice batch of young plants from seeds if he will faithfully follow the hints here given. Procure some 3-inch pots, wash them clean, especially on the inside, put in some crocks and fill them with leaf-soil and good loam in equal proportions. One seed must be buried 1 inch deep in each pot; but before sowing the seeds chip off a small piece of the shell only, on one side of the individual seeds, and then soak them in water for two nights and a day. Place the vessel containing the water and the seeds in a warm place where the water will remain tepid. When the seeds are sown press down the soil firmly and plunge the pots to their rims in a bottom-heat—in a propagating frame, if one is obtainable—of nearly 80°. The soil in the pots must be kept moist, but not saturated. In a very reasonable time at this season the seeds will germinate, and the resultant seedlings must be carefully and gradually hardened to the temperature of a warm greenhouse. Repot the plants in a compost of good loam, leaf-soil, rotted manure and sand, and the result will be fine specimens by the month of August. Shamrock.

4.—AN OLD PLANT BROKEN UP INTO MANY PIECES. THESE ARE PLANTED IN A COLD FRAME OR DEEP BOX AND COVERED WITH GLASS TILL NEW GROWTH HAS DEVELOPED, WHEN THEY MAY BE PLANTED WHERE THEY ARE TO FLOWER.

THE TOWN GARDEN.

Sweet Peas in Shady Places.—Sticklers after what is called the most up-to-date methods in Sweet Pea cultivation would doubtless hesitate before planting these things within the shaded area of a row of Apple trees, and would never dream of sowing the seeds line to line with the trunks of the trees themselves. Yet such a position has points of merit sufficiently good and strong to justify its recommendation to quite a large number and in certain circumstances. One is not going to recommend the more or less uncongenial soil usually found under Apple trees as the right thing for securing flowers of exhibition quality, though one can recommend the position named to those who prefer a display of flowers far into the waning months of the year. Indeed, a youthful and very amateurish beginner, not far from where I write, for two years at least has gathered flowers of a quality and freshness from such a planting that quite surprised me, the flowers seeming much happier during hot weather than elsewhere. Hedges of Sweet Peas in shady places I had known of hitherto—and a real pleasure they are when so treated—but deliberately planting under trees as mentioned was rather new. It is, however, well worth a trial.

Propagation.—Probably one of the greatest drawbacks the amateur gardener has to contend with is the vicissitudes to which cuttings are exposed during his absence from home day by day; and to have to shade such things for hours at a time when shading is quite unnecessary is calculated to induce a sickly and weakly growth from the start. The timely shading of freshly inserted cuttings under ordinary circumstances is an absolute necessity, however, though happily there is a means of dispensing with shading altogether.

How to Do It.—Cuttings are usually inserted in pots in sandy soil, and such as these require to be shaded from hot sunlight as aforementioned. It is well known, however, that a large number of plants of a soft-wooded nature root perfectly well in sand and water, no soil being required. All that is necessary in such a case is to provide a series of earthenware saucers or those of pottery ware, and, having filled them with silver sand, to so saturate the latter that the cuttings may be thrust in by finger and thumb. In this way—the sand being maintained at saturation point—the cuttings require neither frame nor shading, though for purely sympathetic reasons one would not expose them to the strongest sunlight if a more sequestered part of the greenhouse was available. To be able to root such things as Lobelia, Ageratum, Coleus, Heliotrope, Verbenas, Fuchsias and other plants with so great a degree of certainty and so little trouble should, I think, appeal to all by reason of its simplicity, if nothing more.

Special Appliances.—To those who prefer to have them, it may be well to point out that special appliances in pottery and zinc ware are made in convenient sizes and of a pattern to fit over the hot-water pipes in the greenhouse, their use in these positions ensuring what is needful to some of the plants mentioned—a continuous supply of bottom-heat or warmth. When thus employed all that is necessary is to see that the propagating trays or pans are well supplied with water, evaporation being of necessity somewhat rapid. The water may be given from a fine-rosed

watering-can over the heads of the cuttings, which are considerably refreshed thereby.

MAKING THE CUTTINGS.—The making of cuttings to the orthodox joint is a tedious business even for the professional gardener, while to his amateur brother it is often a trial of patience. Those of the latter who have not much spare time may like to know that to not one of the subjects I have named is the joint-made cutting essential; hence the operator is further relieved from work to which he is unaccustomed. A cutting of Coleus or Verbena, for example, detached about midway between any two joints and inserted without more ado will not merely figure as a time-saver, but will be refreshing itself in its moist sand bed before it has time to feel the effects of the knife or the subsequent shock of the changed conditions or the exposure.

E. H. JENKINS.

THE FERN GARDEN.

CURLY FERNS.

ONE is so accustomed to regard Ferns as having flat fronds—as, indeed, practically all have in their normal forms—that the idea of curly ones seems absurd. Nature, however, is given to the invention and creation of innumerable variants, which we, in our ignorance of the underlying causes, term "sports," and in our native Ferns especially she has been particularly ingenious in this respect, since a by no means exhaustive list of such sports embraces something like 1,200 distinct ones as found wild in this country. Each of these is not only made in some different fashion from the common type, but is capable, almost without exception, of transmitting its peculiarities to its offspring. Undoubtedly the prettiest of the curled varieties are what are termed "revolvens" forms. In these the fronds themselves are somewhat curved, while their side divisions are still more so, turning the normally flat frond nearly into a tube. Some years ago we were fortunate enough to find a Lady Fern, so characterised in Scotland (Athyrium Filix-fœmina revolvens Druery), and in this the curling goes to such a length that the side divisions of the fronds form a row of ringlets, which the tip of the frond matches by a spiral twist, with very pretty effect. This character is so marked that when the spores are sound the first little frond curls over and lies on the prothallus, or little green scale first produced from the spore and on which the young Fern is engendered.

In the Soft Shield Fern (Polystichum angulare) several revolvens forms have been found, a very good one falling to the writer's lot last season in Devonshire. In these the ringlet type is hardly reached, only the semi-tubular one asserting itself. It is a curious fact that if such fronds are pressed perfectly flat they appear to be perfectly normal, so that the varietal form is entirely due to an excessive expansion of the superficial cells of the upper surface, thus causing the frond and its divisions to become convexly curved, while the ringlet appearance is due to the endeavour of the under sides to avoid the light. We have seen several forms of the Hart's-tongue which assume this convex type, always accompanied by curvature of the frond itself; but all that we have seen are associated with other characters and are not otherwise normal. Lastrea pseudomas revolvens is a Male Fern on true revolvens lines as described, and we have found Blechnum Spicant similarly affected, but hardly thoroughbred. Another section of the curly Ferns is termed "flexuosum," and in these the midribs of the fronds are erratically twisted, as are also those of the sub-divisions. The result is naturally more curious than beautiful. Several finds of the Lady Fern are thus characterised, and Polystichum angulare has also sported in the same way. One example figured in Colonel Jones's Nature prints, being humorously described by him as obviously having expired in convulsions, so tortuously twisted and twirled is the frond depicted.

Although the causes which underlie all departures from Nature's normal lines of vegetative activity are apparently impenetrable mysteries, the particular class of sport we are treating of is peculiarly mysterious, since therein Nature contravenes one of her laws, viz., that the area of foliage is arranged in such a way as to present as much surface as possible to the light, the light being one of the main factors of vital energy. In curly sports, however, as we have shown, the bending and twisting upsets this plan, tending to carry the light-receiving surface away from the light, and it is reasonable to believe that the twisting and ringlet-forming tendency becomes emphasised by a sort of rebellion against this unnatural deviation, and consequently twists back again towards the light on the part of the growing cells which the primary twist or curve has displaced. Outside Ferns we see something similar in the Croton family, whose quaintly twisted and spiral foliage is familiar to all visitors to horticultural shows. Juncus effusus, a spiral form of the common Rush, is another example of this phenomenon; and in the Willow tribe there is a very remarkable case, Salix babylonica var. annularis, in which every leaf forms a close spiral, alternately exposing the upper and lower surfaces to the light in contravention to Nature's aforesaid rule.

CHAS. T. DRUERY, V.M.H., F.L.S.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

CYCLAMEN FROM EPSOM.

Mr. George Boyd, The Gardens, Danehurst, Epsom, sends us flowers of the two excellent Cyclamen Salmon Queen and Giant White. These are very large and fresh, and make a bright display during the early days of spring. Mr. Boyd writes: "'How beautiful!' is the universal expression of those who see a batch of Sutton's Salmon Queen Cyclamen in full flower. The colour is the brightest I have yet seen. The cultivation of the Cyclamen is not a very difficult matter, providing a few essentials are observed. They must not receive a check at any time, or they will fail to re-establish themselves; nor must they be over-potted, or the soil will become sour and the roots perish. At the final potting the crowns of the corms must be well above the soil in the pots, or one cannot avoid wetting the embryo flower-stems, with dire consequences. They must be kept free from green fly and thrips, and plenty of fresh air should be given on all suitable occasions. With regard to old plants, these must not receive such drastic treatment as some growers advocate, viz., placing them on a shelf in a sunny position with a view to ripening off the corms. A friend of mine once told me that he meant to give his Cyclamen corms a real good sun-baking. He did so, and the result next season was few leaves and less flowers. The proper place for them after blooming is in a cold frame, on an ash bottom, shaded from strong sun, and repot as soon as the foliage turns yellow. I get the best results from seedling plants, but they also well repay growing a second season. The best time to sow seed is the last week of September, and grow the plants on in a warm greenhouse through the winter. When the spring arrives I pot them into small pots at first, and repot at intervals finally into 4½-inch pots. A good compost is made up of equal parts fibrous loam, well-decayed manure, leaf-mould, a little soot and sand. The flowers I enclose are from seedling plants. The white is Sutton's Giant White, and it would be hard to get a better pair than this and Salmon Queen."

VIOLETS FROM ONGAR.

Mr. William Hasler, The Gardens, Blake Hall, Ongar, sends us excellent flowers of the Violets Marie Louise and Lady H. Campbell. Mr. Hasler writes: "I am sending a few Violets. One variety is Marie Louise and the other Lady H. Campbell. The plants were lifted the middle of October last and followed those that were lifted in September."

BLUE PRIMROSES FROM NORTH WALES.

Mr. W. A. Watts, Bronwylfa, St. Asaph, North Wales, sends us some excellent flowers of blue hybrid Primroses. These are very large and of excellent violet blue colour. Mr. Watts writes: "I am sending you a few blooms of my new strain of giant blue Primroses. They are picked from the open. The plants have been in full bloom for some time, and make a very charming sheet of colour. You will see that the flowers are of good size, clean in colour and the stems are long. They are the result of eight years' work of careful selection and cross-fertilisation. The first seed parent was one of my giant Polyanthus Primroses, which I crossed with pollen of selected Wilson's Blue Primroses. The best seedling from this cross I again crossed with selected Wilson's Blue, and by selecting and intercrossing the resulting seedlings I have now got the strain from which the enclosed flowers were gathered. The plants are very robust, and in this respect take after the Polyanthus Primrose. Perhaps you saw the two plants I had at the Horticultural Hall on the 8th inst., one a Primrose and the other a true navy blue Polyanthus. I cannot send flowers of these two plants as they are setting for seed. If I get a good harvest of seed from the beds I am hoping to be able to send out some of it next season."

RARE HARDY SPRING FLOWERS.

Mr. W. A. Cook, The Gardens, Leonardslee, Horsham, sends flowers of the following with notes: "It is not generally known that

Daphne japonicum flowers and does so well outside. The enclosed spray is cut from a large plant on a south wall; the scent is delicious, and quite equals the variety indica rubra grown under glass. D. japonica is useful when grown outdoors because it succeeds D. indica rubra. Both are equally good for cutting for house decoration. We have a number of plants in different positions, so that we have always a plant smothered with the fragrant flowers. One suddenly becomes aware of its presence by the scent. It should be planted in loamy peat and leaf-soil, with some sharp sand. It strikes freely from cuttings and makes excellent little plants in a year.

Edgeworthia chrysantha.—A rare and rather uncommon plant, having a Daphne-like bunch of flowers with a faint perfume and bright yellow colour. The flowers are produced at the ends of the shoots before the leaves have opened. It does well on a wall and also in a sheltered border in the open; it is well worth the notice of those who esteem such plants. [A most interesting plant with a bunch of yellow flowers at the end of the leafless shoot.]

Cantua dependens.—This is a lovely greenhouse climber, the flowers being pendent and of a beautiful rose pink with a neck of orange scarlet. It is very easy to grow, and good plants can be had from cuttings in two years. A most desirable spring flower, and useful when grown in pots as standards for the home."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor of The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Plants for beds (*F. Thorpe*).—As you require a good display for the summer and autumn, you cannot do better than plant the beds with tuberous Begonias, either in separate or mixed colours, and edge them around with variegated Dactylis or Cock's-tail Grass. The Begonias are purchasable in white, crimson, scarlet, yellow, orange, pink and rose shades, and you may, in addition to edging the beds, plant them thinly with the Grass; or you might plant the two diamond beds with crimson and scarlet Begonias, thinly sowing seeds of Alyssum maritimum at the time of planting. The two round beds could be planted with Heliotrope, and the two stars with pink Ivy-leaved Pelargonium, which, with the Heliotrope, would require to be pegged down at first. No plants would give so prolonged a flowering as these, though such mixtures as Asters with Begonias might well be introduced. It is very much a question of choice and taste, and not a little, of course, of ways and means.

Plants for wall top (*M. S. H. B.*).—By your present showing, and in particular the dryness of the wall top, the latter does not suggest great possibilities, and your only chances of success will be by filling up the crevices between the flags with a little soil. In this you might plant Wallflower, Antirrhinum, Aubrietia, Thrift, Poppy, Erinus and Red Valerian seeds quite thinly, and by well plugging the cracks between the flags with clay or cement at their extreme sides, and so prevent the rain-water getting away too quickly, most of the above-named plants would succeed. Usually the object of a stone capping is to exclude moisture from the wall, while its own impervious character almost precludes the possibility of growing plants on its surface. You may, however, by placing a little soil thereon, succeed with such Sedums as acre and album and some of the commoner Houseleeks. Just what may succeed depends, to some extent, on what assistance could be afforded the plants in summer-time, and in the case of well-built walls of brick that afford no evidence of vegetable growth after many years some assistance is necessary. Corydalis lutea and the Kentucky Ivy (Linaria Cymbalaria) are splendid trailing subjects for the best-built walls if you can only get them to start.

Stone sink in rock garden (*R. H. Green*).—The sink with the increased soil depth to which you refer would do quite well for certain plants, and none better than Iris Kæmpferi. What you have chiefly to guard against is the complete plugging up of the sink, as in this way the soil would quickly become sour and unfit for the plants. If you could so arrange matters that the soil would be retained almost at saturation point without stagnation ensuing, the Iris would do well if planted quite at the surface so that the roots get down to moister soil. In so small a place and in the circumstances named we think you had better confine yourself to the Iris, though Myosotis palustris and Omphalodes verna would prove good carpeters in spring before the Iris was well astir.

Iris stylosa (*R. E. Johnson*).—You cannot do better than lift the Couch-infested plants any time within the present month, washing away all the soil in a tub or other vessel containing water; pull the clump to pieces so that all the weed can be removed. After that is done, replant in the sunniest position you have at command. There is no better time for dividing and replanting this species than March or early April, giving the plant a hot position and freely mingling old mortar or sandstone with the soil. Further, do not bury the rhizomes too deep, but rather press them firmly against the sandstone blocks, so that a certain dryness is afforded the plants. You certainly might remove the browned portion of the leaves without harming the plants. If you have no sandstone, use soft, red brick-bats and set the plants in a slightly raised bed or position.

ROSE GARDEN.

Explanation of Rose terms (*C. H. E.*).—The term Hybrid Perpetual was given to Roses raised by crossing the Hybrid Chinese and Gallica Roses with the Damask Perpetual, which imparted a more continuous blooming than these old-fashioned tribes provided. The name is somewhat of a misnomer, for there has crept into the collection many Roses that bloom but very sparingly a second time, and cannot therefore be termed "perpetual." The Hybrid Teas, Tea-scented, Polyantha and Chinese Roses are our truest perpetual-blooming tribes. Hybrid Tea was a name given to Roses crossed with certain Hybrid Perpetuals and the true Teas, the sturdiness of the former being imparted to the latter, whereas the latter gave its refined and delicate colouring. But many kinds now run so closely to the true Teas on the one hand and the true Hybrid Perpetuals on the other that it is most difficult to differentiate between them. Tea Roses are the fair sex of the Rose world. They possess a delicacy of bloom and also a distinctive graceful growth, very slender as a rule, with rich glaucous foliage and reddish growths in the young state. The true Teas in the first instance were introduced from China, and from the original and almost single-flowered types the lovely gems we have to-day have originated. The Manetti stock is a variety of Rose raised by Signor Manetti, curator of the Botanic Gardens of Italy. It was introduced by the late Thomas Rivers. It is a good stock on which to bud Hybrid Perpetual Roses, also various other tribes, and in some districts is preferred to the Briar. Tea Roses should not be budded upon Manetti, but some of the Hybrid Teas do well upon this stock.

Roses and other plants for unheated greenhouse (*E. A.*).—Some of the Hybrid Tea and Hybrid Perpetual Roses would grow well in your unheated greenhouse. You should obtain established plants in 7-inch or 8-inch pots. If procured at once and pruned without delay, you would have some nice Roses before those bloom outdoors. A dozen good sorts would be Caroline Testout, Mme. Ravary, Prince de Bulgarie, Pharisaer, Richmond, Lady Battersea, Lady Ashtown, Hugh Dickson, Frau Karl Druschki, Mrs. John Laing, Ulrich Brunner and La France. Some of the beautiful flowering shrubs in pots would do well in this house, such as Ghent and mollis Azaleas, Hydrangea paniculata grandiflora, Pyrus japonica of sorts, Lilacs of sorts, Philadelphuses, Spiræas, &c. Some Carnations would do very well for a time if you purchased them when showing bud, and some of the lovely Geraniums, Fuchsias, Cannas, Heliotrope, &c., would do well for a summer display; also such things as Aspidistras, Aralia and Dracæna indivisa would provide some nice foliage plants.

TREES AND SHRUBS.

Retarding growth of Sycamore (*Little Tich*).—We hardly know what you mean by "ringing" your Sycamore to retard its growth. That term applied to some plants signifies the removal of a ring of bark to cause roots to appear from immediately above the place from which the bark has been removed, so that the plant may be shortened. The practice is often adopted with indoor ornamental foliage plants which have lost their lower leaves. This practice applied to the Sycamore would, however, be attended with fatal results, as it is out of the question in your case. If you mean root-pruning it is a practicable idea, and you may open the ground 6 feet or 7 feet from the trunk and cut all the strong roots through, an operation which ought to be performed without delay. You may also reduce the head by pruning, without seriously injuring the contour of the head, if the work is done carefully. The best time for the work is summer, after the leaves have attained their full size. When shortening the branches take care to cut them to small branchlets, which will tend to hide the cuts, and protect the wounded parts with tar as soon as the work is accomplished. If the cutting back appears to give the tree a too dense or heavy appearance, you may remove a branch bodily here and there, which will have the desired effect. Root and branch pruning are the only things that you can do to check growth, and if you neglect them the tree will soon outgrow its position.

Beech trees retaining their leaves (*J. Wetherby*).—It is quite a natural occurrence for moderately young Beech trees, either growing in plantations or as hedges, to retain the dead leaves until spring, and the same thing happens with young trees of the common Oak and Hornbeam. There is nothing that you can do to prevent it, as it is really due to immaturity. Providing your hedge is vigorous and otherwise in good condition, there is no reason why you should do anything in the way of feeding. If, however, you think that the growth is in any way weak, a top-dressing of well-decayed manure may be given with advantage.

Fungus on Box edging (*W. Charlton*).—You can do nothing better to prevent the spread of the fungus on your Box edging than to take all the affected pieces up and burn them. The soil ought then to be removed to a width of 1½ feet and a depth of 1 foot, replacing with new soil previous to replanting. If you could manage to let the borders remain for a year before replanting it would be very beneficial, for by that time you would be able to tell whether the edgings to any of the other beds, which are at present apparently all right, are in any way affected. When disease is as bad as is apparent in your case from the shoots sent, it is impossible to do any real good without making a clean sweep of the plants on the affected area and commencing again.

Information about shrubs (*Mystery*).—The Lilac bush which you have flowering in a pot will be of no use for the same purpose next year. You had better plant it out in good garden soil and reduce the young shoots to four on each branch. A further reduction of the young shoots next year will probably make the plant strong enough for forcing again during the winter of 1911-12. The bushes in your garden may be prepared for next winter by reducing the young shoots as soon as they are about 4 inches long, to throw all the strength into a few branches, which will help them to produce flower-buds. This treatment has a tendency to make the plants leggy; but that cannot be helped if the maximum quantity of flowers is required. The Guelder Rose ought also to be planted out after flowering and have weak inside growth cut away. It ought to be ready for forcing again in the winter of 1911-12. The same treatment may be given to the Syringa. As a rule it is possible to grow these plants in pots and force them for two successive years. The plant which succeeds best under pot culture year after year, without planting in an open border, is Wistaria chinensis. It is impossible to say why your Gladioli did not flower. We suspect, however, that they were really an autumn-flowering kind and were, perhaps, planted late, which caused them to keep green until December. It is possible that some of the bulbs are still sound and will grow again this year, as we have not had a severe winter. Last year was very unfavourable for late-flowering plants.

FRUIT GARDEN.

Budding Apple trees (*C. H. E.*).—The Paradise stock is a variety of Apple largely employed by fruit-growers on which to bud other sorts of Apples. It is a stock that does not grow so fast as the Apple grafted upon it; hence the inducement on the part of the Apple to produce fruit-buds instead of rank growth. The roots of the Paradise stock are very fine, and are produced near the surface. Apples budded on the Paradise stock fruit more quickly than do those budded on the Crab Apple stock; hence its suitability for small gardens.

Apple mildew (*W. Kelly*).—Spray at once with potassium sulphide, and if there is the least sign of mildew later on, spray again. In this way you will keep the disease in check. At the same time, should a shoot or two be badly attacked, they must be cut clean out as advised last year in your case.

Spraying fruit trees (*Newlands*).—Spraying with alkali wash and with the copper sulphate solution should cease as soon as the buds begin to swell, otherwise the developing leaves will be seriously damaged. Bordeaux mixture may, however, be used on Apples for fungus pests at half the strength used for Potato spraying.

To propagate an old Fig tree (*Kensington*).—There are two ways by which cuttings or branches of the old tree may be made to grow. The best cuttings are short-jointed shoots of the previous year's growth. They should be from 6 inches to 7 inches in length; if a small heel of the old growth is attached to the cutting, so much the better. The cuttings should be inserted now in sandy soil in pots, say, five cuttings in a 5-inch pot. The pots should be placed in a warm propagating-house, when the cuttings will soon make roots, and if potted on and grown in heat will make good sturdy plants by the autumn. To propagate by layers, select a long branch and bend it down to the ground; cut a notch in the branch one-third through about 15 inches from the point of the shoot; insert this in the soil 4 inches deep, having first stirred the soil with a fork; peg the branch firmly in the soil with a strong wooden or iron peg, and then ram the soil firmly over it. Gently raise the end of the branch which is out of the soil and fasten to a stake. Now is a good

time to do this. Plenty of roots will have been formed by the autumn, when the part of the branch below the roots may be severed and the young Fig tree planted where desired. Sometimes the Fig sends out suckers from its roots. These, if taken up with roots attached and potted, soon make good plants.

THE GREENHOUSE.

Treatment of Crinums (*Crinum*).—Presumably the Crinums are established in pots, in which case if they need repotting it should be done at once. A suitable compost may be formed of good loam lightened by a little leaf-mould and sand. After potting they must be returned to the greenhouse and given enough water to keep the soil fairly moist. In this way the roots will soon take possession of the new soil, and when fully active more water must be given. When all danger from frost is over, they may be stood or plunged out of doors in a spot fully exposed to the sun, taking care that they are not allowed to get dry at the roots. Then towards the latter part of the summer you may reasonably expect them to throw up their flower-spikes, when, if you wish it, they may be taken into the greenhouse for decorative purposes. After the flowers are past it will do them good to be again stood out of doors, watering as before till the leaves die down, when they must be removed under cover and wintered in a structure safe from frost. At that season they should be kept almost dry. If in your opinion the plants do not now need repotting, they may, if the roots are in a healthy state, be given an occasional dose of liquid manure, taking care that the soil is not in a dry state when this stimulant is given.

Carnations in cold house (*Weekly Reader*).—We advise you to allow the buds to develop, providing they appear healthy, as the pinching off will not help the growth at this time of year. The Malmaison Carnations may be pinched later on when root action is commencing, and this will induce them to break and produce nice bushy plants.

Aspidistra leaves spotted (*F. D. P.*).—The cause of the leaves of your Aspidistra being in the condition of those sent is a want of chlorophyll, owing, we should say, to the starved state of the plant. Now that it has been repotted it will, as soon as the roots take possession of the new soil, probably recover. At all events, we should not cut off the leaves while they are in as good a condition as those sent.

Pelargonium leaves for inspection (*One Interested*).—The leaves of the Pelargonium show symptoms of having been kept in too moist an atmosphere. This results in a condition known as intumescence. The cells become gorged with water and swell far beyond their usual size. Later, they collapse and produce brownish, scurfy-looking masses on the leaves. There is no fungus present. The best preventive means to adopt is, of course, to carefully regulate the amount of water in the air.

Insect eating Ferns (*G. Gleave*).—The pest you sent was the Vine weevil (Otiorrhynchus). These troublesome beetles hide in the soil during the day, and emerge after dark to feed on the leaves and shoots of various plants. They may then be captured by shaking the plants over a pail containing a little paraffin oil. The beetles will fall to the ground, feigning death, if the light shines upon them, so care must be taken to avoid that. The larvæ feed upon the roots of various pot plants and Vines, and if they are present, the only satisfactory method of dealing with them is to turn the pots out and pick out the grubs.

Pelargoniums diseased (*Lismoyne*).—The Pelargonium leaves are attacked by a fungus which often gives trouble, and whose ravages are greatly on the increase. Highly fed plants and those that have been kept close and warm are particularly liable to be attacked by it. Spraying the plants with a solution of permanganate of potash and allowing them to have all the light and air possible will, with the lengthening days, probably effect a cure.

Begonia Gloire de Lorraine dying (*J. D.*).—The condition of your plants of Begonia Gloire de Lorraine is, judging by the specimen sent, due to a superabundance of atmospheric moisture, and possibly also at the roots. The effect of this is that the tissues become gorged with fluid, and decay then sets in. A light, buoyant atmosphere and a minimum temperature of 50° will just suit the requirements of this Begonia. From your letter the treatment given this season is the same as in preceding years, when you met with success; but one thing to bear in mind is that the present winter has been an unusually damp one. This may have had something to do with the matter.

Gardenia leaves for inspection (*G. E. D.*).—The Gardenia leaves have been badly attacked by thrips, which would, to a certain extent, account for their crinkled state. You say the plants have been grown in a temperature from 70°, which is certainly much too high, as a minimum temperature of 70° would mean a maximum of 80° to 85°. For Gardenias a minimum night temperature of 50° is sufficient during the winter, rising, of course, in the daytime. Vaporising with the XL All Vaporiser will destroy the thrips and other insect pests. An irregular temperature will also tend to disfigure the leaves, as also would unsuitable soil; but from a small spray it is, of course, quite impossible for us to define the actual cause of the trouble, though we are inclined to think that excessive heat plays the greater part in the matter.

Forced Daffodils (*Rabbit*).—You may certainly plant the bulbs in the garden so soon as the flowering is over, and in this way you would be saved all the trouble of watering and other attention requisite to mature growth. The ball of earth should not now be disturbed, and the plants should be given a heavy soaking of water after they are planted. It will be better, however, to plant them temporarily, and lift them in July to replant 5 inches deep in more permanent quarters. If the pots are not large or the bulbs in them not crowded, you could plant them in permanent positions now, taking care to plant them the depth we have stated. In case of dry weather setting in, afford the plants a few copious waterings. The better way with the Snowdrops would be to place an order with a bulb merchant conditionally that you were supplied in June. It is, of course, very early, and interferes with the method adopted by the wholesale dealers in such things; but if the order justified it, any firm would endeavour to meet you, we think. If not, we think an advertisement would give you the most help in the matter.

KITCHEN GARDEN.

Artificial manure for Potatoes (*Constant Reader*).—Failing having had the ground in which you propose planting Potatoes dressed previously with animal manure, your best course is to either throw out deep drills or trenches 6 inches deep and plant the tubers in those; then give along each drill or furrow the artificial manure, well crushed and mixed, at the rate of 6lb. per 80 feet run, at once covering up the tubers and manure. If you propose to plant your Potatoes with a dibber, have the quantity of manure stated dressed on each rod of ground and at once forked in. We prefer the other plan, however, as the new roots put out from the sets seem to utilise the manure all the sooner. A good Potato manure consists of bone-flour or superphosphates, kainit, as potash, and sulphate of ammonia, as nitrogen. Get these from a local manure merchant in equal quantities, keep them quite dry till used, then well crush and mix on a hard floor, and measure quantities by weighing.

Dry paths in kitchen garden (*R. L. B.*).—The cheapest material we can suggest is a foot deep of clinkers first well rammed or rolled down, to be finally covered with 3 inches or 4 inches of sifted burnt ballast. This would give you a dry path for all time, and would not look unsightly. Its drawback is, of course, that the surface would not bind or settle, and this would not ensue if gravel were used unless it were of the requisite binding quality. As yours is a dry, sandy subsoil there would be little water lying about, and probably half the amount of rough material suggested would suffice. You would, of course, require to remove some soil to afford the necessary depth, and this would rid the path of weeds for the time. You need have no trouble with the weeds, however, if you use one of the weed-killers so frequently advertised in our columns. The present time, too, is excellent for applying such things, and not only weeds, but moss, lichen and the like are all removed. Care is necessary, and the liquid must not come in contact with evergreen edgings or grass.

MISCELLANEOUS.

Goldfish diseased (*A Reader of* THE GARDEN).—We do not know of any remedy for the goldfish disease which you speak about. Your best plan would be to write to the secretary of the Zoological Society, Zoological Gardens, Regent's Park, London, sending him one of the diseased fish and asking for information.

Worms for inspection (*W. H.*)—The white worms are not eelworms; eelworms are very much smaller. These are nearly allied to the earthworms, and are scientifically known as Enchytracus worms. They feed mostly on decaying vegetable matter, but when numerous often attack the roots of living plants. The best thing to do will be to give a good soaking with lime-water after forking up the surface. Apterite, Kilogrub or Clubicide, used according to the directions given with these substances, might be used. They would be applied in different ways according to the substance chosen.

Bones for Chrysanthemums (*Little Tich*).—Bones burnt in the manner you describe will be of less value for your Chrysanthemums than the ordinary broken bones of commerce. The latter are quite safe to use; but the greatest amount of good is obtained from them if the compost is mixed three months before it is required for use and turned two or three times in the interval. This allows the bones to commence decomposing and ensures the compost being perfectly sweet. You will find burning and breaking up bones for yourself a very disagreeable and, at the same time, unprofitable operation. The fungus you speak about is not likely to harm your plants in any way.

Plantains and Daisies on a lawn (*K.*).—Your best plan will be to dress the lawn with Lawn Sand, which is frequently advertised in THE GARDEN. This will probably cause the lawn to look rather brown for a few days, but the grass will quickly regain its verdant hue and be much improved by the application. Owing to their broad foliage, the Daisies and Plantains will be killed.

Electric light and plants (*Norseman*).—In reply to your query as to whether electric light has been tried practically in the growing of early fruit and flowers, we are sorry to say there has been no definite trials from which sufficiently reliable data has been obtained to warrant us to advise you how to proceed to ensure success. Some experiments were commenced at the Royal Botanic Gardens, Regent's Park, N.W., when Strawberries, Peaches, Vines and other plants were subjected to the rays of a travelling arc light of 800 c.p. during December and January, 1908-9, at an average of eight hours' light per day for six days per week. In about three weeks the effects on the light-subjected plants over those grown under ordinary conditions for control were apparent by the increased growth. But owing to the untimely death of Mr. Thwaites, who was conducting the experiment, it was prematurely brought to an end. We regret having no reliable information to give you on this subject at the present moment. There is no reason, however, why you should not experiment if you so desire, but you must risk the damage to the crop which may arise by doing so.

French gardening (*Chevroner*).—The price of land per acre would depend mostly on its proximity to a town. If near, it would possibly be £100 per acre or more, and if in the country probably from £40 to £50. The greatest desideratum in the position of the land for the purpose of French gardening is for it to be as near as possible to a cheap and abundant supply of fresh horse-manure and water, as enormous quantities of both are required during the year. The crops under this system of gardening are practically reared and grown in manure. The outlay for a complete equipment of the necessary appliances for carrying out the work would be about £900 per acre, and you would require the help of a man and a boy to do the work. The returns would depend more on the efficacy and skill of the management than on anything else. The first year the returns would not, of course, be so large, as the soil of the garden would not be sufficiently enriched, but they would increase every year as the soil became richer. The returns would have to be at least £400 per annum for it to pay at all, considering the money and labour expended. Many claim to make a much larger return than this. It would be fatal for you to embark on the work without two years' training at least in a good French garden either at home or in France. There are several recent and excellent books written on the subject which you would do well to study carefully. One is by John Weathers, F.R.H.S., to be had of John Murray, Albemarle Street, W. The other is by John Smith, superintendent of the French Gardens at Mayland, Essex. We do not know whether this gentleman takes pupils; but we have no doubt if you will write him he will put you in the right way to obtain such teaching as you may desire.

Names of plants.—*Mrs. J. Bond.*—The Narcissus polyanthus with the citron-coloured cup is Luna; the one with the orange cup is Gloriosa.——*W. W.*—Pulmonaria officinalis.

Names of fruit.—*W. H. H.*—Both Pears are the same variety, viz., Uvedale's St. Germain, and it is a stewing Pear. As the trees are doing well now, we should not regraft them, but encourage them to go on fruiting, as stewing Pears are always acceptable.——*Miss D.*—The Apple is Schoolmaster. The black spots are due to the attack of a fungus, the spores of which attack the fruit through the little breathing pores (lenticels) in the skin. The fungus does not appear to spread very far and does not do any great amount of damage. It seems to spread less when the Apples are arranged in single rows so that they do not heat.

BOOKS.

The British Fern Gazette.—The March (quarterly) issue of this interesting gazette, which is edited by Mr. C. T. Druery, has just appeared, and the frontispiece is a noble plant of the Polystichum called P. aculeatum plumosum. There are notes on "The King of the Male Ferns" (Lastrea pseudo-mas cristata), "The Naming of Fern Varieties," "Fern Curios," "The Decorative Value of Our Native Ferns," "Some Ancient Uses and Beliefs in Ferns," by William E. Farrer, "The Jones and Fox Collection in the Clifton and Zoological Gardens," and "Spring Treatment of Hardy Ferns," which we shall reproduce. An excellent number.

THE GARDEN.

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CONTENTS.

Climbing Annuals for the Flower Garden 161
Plants and shrubs wanted 161
Notes of the Week
Forthcoming events 162
Correspondence
Double-flowered Narcissus Poeticus going blind 162
Forced Narcissi .. 163
Gardening of the Week
For the South and South Midlands .. 163
For the North and North Midlands .. 163
Fruit Garden
Fruit notes 164
Flower Garden
A beautiful race of alpines 164
Daffodil and Tulip notes 164
An early flowering rock plant 165
The fascination of the Crocus 165
Roof gardens 166
Rose Garden
Wichuraiana Rose François Foucard 167
Rose Austrian Copper 167
Mildew-proof Roses 167
Gardening for Beginners
Garden work week by week 168
Big-bud in Black Currants 168
How to prune varieties of Buddleia variabilis 169
Liliums under glass 169
The Town Garden .. 169
Flower borders 170
Books 170
Kitchen Garden
How to grow Spinach 171
Tomato Carter's Sunrise 171
Answers to Correspondents
Flower garden 171
Fruit garden 171
Miscellaneous 172
Societies 172

ILLUSTRATIONS.

Shortia uniflora grandiflora 164
An early flowering rock plant: Synthyris reniformis .. 165
A garden on a roof 166
Rose François Foucard in a Scottish garden 167
Big-bud in Black Currants 168
How to prune varieties of Buddleia variabilis 169
A Pæony border at Langport 170

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

CLIMBING ANNUALS FOR THE FLOWER GARDEN.

AMONG the host of annual plants which are available for growing outdoors in this country there are some which possess a climbing habit, and for this reason may be regarded as of special value. There are few gardens where ugly corners, fences or buildings cannot be found, and which it is desirable to screen, if not permanently, at least during the summer months, and it is for work of this description that the climbing annuals come in exceedingly useful. Generally speaking, they grow rapidly, and need but little attention once the seeds have been sown and the young plants given a good start in life.

Of course, the gem of climbing annuals is the Sweet Pea; but the culture of this has been so fully dealt with in special articles that it is not necessary to refer to it at length here. For the purpose of forming a screen, however, strong-growing and free-flowering varieties should be chosen, and unless special soil culture is given, the plants should be left rather closer together than is generally recommended for this annual.

Morning Glory (Convolvulus major) is a climbing annual that finds favour with many. It should not be sown until the third week in April, as the young plants cannot withstand the slightest frost. Unfortunately, the large, bell-shaped flowers close during sunny days, but in the early morning their exquisite markings and delicate colours are fully revealed. This plant is an inducement to garden-owners to rise early, and so enjoy the new-born fragrance of many of the occupants of the garden. It grows very fast, and will quickly reach a height of 6 feet. It likes deeply cultivated and moderately rich soil.

For forming a dense screen, the Climbing Nasturtium (Tropæolum majus) is a very useful annual. The plant itself likes rich soil, but this must not be given it if a good display of flowers is desired. If planted in well-manured ground this Nasturtium will grow away at a great rate and produce an abundance of large, healthy-looking leaves, but the owner will look for flowers in vain. Poor soil is the secret of success with this and also the dwarf Nasturtiums, and I know of no better annuals for sandy gardens. Another near relative of the Nasturtiums is the charming little Canary Creeper (Tropæolum canariensis). It is best to sow seeds of this in pots in a greenhouse or frame early in April, two seeds in a 3-inch pot filled with rather sandy soil answering very well. When the seedlings appear give them free ventilation, and plant out 1 foot apart early in May. The plants do not grow so rapidly as many annual climbers, and it is usually rather late in the season before they produce their golden yellow flowers. I once saw this climber used in the centre of a large lawn bed, some neat Pea-sticks being used for it to scramble over, and surrounding it was a broad band of lemon yellow African Marigolds. The effect in late autumn, when the ordinary bedding plants presented a shabby appearance, was very good indeed.

The variegated Japanese Hop (Humulus japonicus variegatus) is a quick-growing annual climber that is valued for its handsome foliage. Seeds ought to be sown in pots in the greenhouse in February or early March, but if sown at once good specimens for planting out early in May can be secured. It likes a moderately rich soil, and prefers poles to climb upon.

A climbing plant which is not an annual, but which is best treated as such, is Cobæa scandens. This is an exceedingly useful climber for the greenhouse, but does not do well outdoors except in the very warmest localities. It has large, dull purple, bell-shaped flowers. Plants for outdoors should be raised in pots under glass, and planted out the middle of May. Eccremocarpus scaber is another climbing plant that can easily be raised from seeds, and which will produce its pretty orange scarlet flowers freely providing it is given a warm position. Seeds should be sown under glass in March, and the plants put out in their flowering positions about the third week in May. In addition to its handsome flowers, the foliage of this climber is much serrated and of a neat and pleasing character. A. A.

PLANTS AND SHRUBS WANTED

For the Metropolitan Public Gardens Association.

The public has a child-like habit of accepting certain good things as if they dropped from Heaven like manna. No particular attention is paid to them. They are taken as a matter of course. No one asks whence they come or who provides them. This is just how Londoners accept the good things given them by the Metropolitan Public Gardens Association.

What are these good things? The name of the association suggests but a small part of them. It is as well that the public should be reminded, now and again, of the pleasantnesses that, through its tireless industry, are enjoyed.

Among the best of them we must place a large number of London's open spaces, not necessarily gardens, that have been preserved for us, often in the teeth of serious difficulties; they are the envy of Paris and many another densely populated town. Then there is the boon of London's green and shady trees, the comfort of its seats and fountains, the healthfulness of its wash-houses, gymnasiums, recreation grounds and means for innocent play. Its poorer squares,

too, set out with grass and flowers, its disused churchyards made sweet and wholesome, its offerings of prizes in the most squalid neighbourhoods for the prettiest window-box or decorated wall to relieve the dull monotony of streets otherwise devoid of any gaiety of colour, except that given by the gaudy painting of some public-house. Brighter than any paint are the colours of God's flowers, never so dear, so welcome, as in such poor surroundings. They look as if Heaven-sent, "manna" indeed.

Nor is this all. The little party of workers, who meet on the first Wednesday of every month, keep a keen look-out over the whole of our vast metropolis and its environs. The tendency of the building-line is ever to advance. Property is always changing hands. Every breathing space or opening to admit air, light and sunshine is a precious jewel, once lost never to be recovered, or almost never. The lists that are published year by year by the association of works accomplished and of works that failed to be carried out—often for want of funds—provide reading that might well interest every patriotic Englishman and woman. The little red book that tells of these things costs but a simple sixpence; it is worth its weight in gold. No one can peruse its pages quite unmoved; so much work done, so much to do, so much to rejoice over, yet always something to regret. It is read with smiles and sighs; but, happily, the smiles predominate, for failures are far fewer than successes. Time does not stand still, however. Old friends and generous donors pass away, and unless new blood pours in from time to time, the association must suffer.

The notices sent to subscribers with the minutes of each meeting are enlightening. They begin with a list of things "wanted." The needs are various. Here are one or two of them for this year. So much for the laying out of a square, so much for five or six drinking-fountains, so much for the making of a playground in Bethnal Green, so much for the maintenance of two City churchyards, hitherto maintained by donors now deceased. Sometimes funds are wanted for law expenses when a view has to be saved or some precious space is in danger of being snapped up, fairly or unfairly. But the very first "Want" always on every list is precisely the one that will appeal, I hope, to all readers of THE GARDEN. It is as follows: "*Gifts of Plants and Shrubs.*"

Now here is a chance in a thousand for utilising waste and turning rubbish into something precious. Every spring and autumn do not most of us gardening people make our shrubs and plants play more or less a game of "Post"? We set about alterations and improvements; we move our treasures and transplant them, or we take them to pieces, herbaceous plants especially, and quantities of roots are thrown away. In our mind's eye we see them plainly; pretty red roots, curious long ones, lying in heaps. What becomes of them? As often as not they go to feed the bonfire, or are buried in the rubbish hole. Is not this a pity? If packed up and sent to the association such rubbish could be made use of; it would not be "rubbish" any longer—it would be "manna."

Ivy roots, too, always come in useful, and the thinnings of the shrubbery. Well-intentioned people sometimes send as gifts the Geraniums and other bedding plants taken up during the weeks of autumn, after their summer bloom is over. Such plants are of little use, for they have to be sheltered all the winter, which costs about the same as buying new ones; the kind thought is appreciated, but no advance is made. Old window-box plants in good condition, if in the nature of shrubs, or of Ferns or anything hardy, are always welcome; spare bulbs, too, for autumn planting. Young trees are, of course, a treasure. There are few gardens from which something could not be spared; but the right moment must be seized. One of these moments is now here, for spring again, with "its old smile," has come back to us, and gardeners will be busy. Let us give them yet another task—a pleasant one.

The Metropolitan Public Gardens Association joins hands with many other societies that have kindred aims and ends, and it has ramifications that extend throughout Great Britain and far beyond it. To mention one or two, I may instance the Commons and Footpaths Society, the Kyrle Society, the Hampstead Heath Protection Society, the Norwich Open Spaces Society and so many others that, all told, they would make a list too long for this short paper. The association has no executive committee; members who attend the monthly meetings form a council on each occasion. All subscribers of a yearly guinea or more become members and are invited to attend. Lord Meath, who started the society more than a quarter of a century ago, is still its moving spirit, and is both chairman and hon. treasurer. Further particulars will gladly be given by his secretary, Mr. Basil Holmes, if written to at 83, Lancaster Gate, London, W.

FRANCES A. BARDSWELL.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 2.—Meeting of the French Horticultural Society of London.

April 5.—Royal Horticultural Society's Exhibition of Flowers, Fruits and Vegetables, Vincent Square, Westminster; lecture at 3 p.m., by Professor Henslow, on the "Use of the Spectroscope in the Study of Plant Life." Bournemouth Horticultural Society's Spring Show (two days).

April 6.—Liverpool Spring Flower Show (two days).

A gardeners' congress.—It has been suggested that the time has arrived when the gardeners of the United Kingdom should meet together to discuss matters affecting their interests and profession. The chief difficulty in the way of this is to select a day and a time that would be convenient to any very large number of gardeners. Probably the first day of the Holland House Show at Kensington—that is, on Tuesday, July 5 next—would be as good a day as any to secure a meeting of representative gardeners from various parts of the kingdom. Gardeners generally are beginning to feel that unless they co-operate in some way, the best positions in their calling are likely to be filled by men who have had no horticultural practice or experience. If any gardeners in sympathy with the idea of holding a conference will kindly send their names and addresses to me, I think I might say that the Executive Council of the British Gardeners' Association will be only to pleased to co-operate and to defray the expense.—JOHN WEATHERS, *Talbot Villa, Isleworth.*

The Carnation Year Book.—Though it is yet only in its infancy, the Perpetual Flowering Carnation Society has done much useful work, and this annual is the latest effort to popularise the flower for whose advancement the society exists. We must confess that we are rather disappointed with this the first annual of the society. The articles, excellent though they are, might very well have been extended so that the writers could have dealt with their subjects more fully. We think this would have been of far greater value than the names of the prize-winners at the shows held last year. The list of Carnation names compiled by the American Carnation Society will doubtless be useful to those who are interested in raising new varieties or the getting together of comprehensive collections. Concerning the articles, these are very good so far as they go, but, as stated above, these might well have been made longer and more comprehensive. Mr. Hayward Mathias deals with the history of the society; the Rev. J. Jacob writes in his usual thorough style about the history of the Perpetual-flowering Carnation; Mr. E. F. Hawes gives particulars of the bedding-out trials held at the Botanic Gardens, Regent's Park; Mr. L. J. Cook sets forth the merits of the Perpetual-flowering Carnation as a bedding plant; Mr. James Vert writes on the culture of the plants in pots; Mr. C. H. Taudevin gives excellent advice to amateurs respecting the culture of Perpetual-flowering Carnations; Mr. C. Engelmann looks into the future of the flower; Mr. R. F. Felton gives some exceedingly useful and reliable hints on the decorative value of these Carnations; and last, but by no means least, Mr. Montagu C. Allwood tells readers how to hybridise Carnations for the raising of new, improved varieties. It will be seen by the above that the list of subjects dealt with is a very comprehensive one, and much useful information is given in the articles. Copies of the annual can be obtained post free, price 1s. 2d. each, from Mr. Hayward Mathias, Lucerne, Stubbington, Fareham, Hants.

Herbert Park, Dublin.—A premium having been offered for the best design for the laying out of Herbert Park, Dublin, the site of the recent International Exhibition, out of a large number of designs submitted, that of Messrs. J. Cheal and Sons, landscape gardeners, Crawley and London, has been accepted, and the premium awarded accordingly.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet Pea stem with six flowers. In the very interesting note from Mrs. Peacock of the Anchor Hotel, Thetford, Norfolk, which appeared in your issue of the 19th ult., it is stated that she usually raises her seeds of Sweet Peas in pots of sand. Perhaps to other amateurs besides myself this may seem rather astonishing. Is it correctly printed? There is one other expression, viz., "pea soup," which, of course, is some liquid manure; but has it any local significance, as possibly house slops or diluted drainage from manure heaps?—W. M. [In reply to the above and many other letters, Mrs. Peacock writes: "It is quite correct that the seed is sown in sand. My 'pea soup' is a strong liquid manure, which has to be diluted before being used. It is a mixture of fowl manure, soot, slaughter-house manure, and some from the blacksmith's shop which contains the cuttings of hoofs. This is all put into a sack and dropped into a large tub—a rain-water tub—and some of the house slops, soapy water, &c., is put into the tub. Each time I use the liquid I fill up the tub again with water, so that the mixture lasts for several weeks without replenishing."—ED.]

Double-flowered Narcissus Poeticus going blind.—In the interesting notes on Daffodils in THE GARDEN for February 19, the Rev. J. Jacob has some observations on the double white Narcissus going blind, and speaks of the fortune that awaits the grower who can solve the problem satisfactorily. Putting aside the awaiting fortune, I think there can be no doubt as to the likes and dislikes of this particular variety, and it must be approaching twenty years since I stated emphatically in THE GARDEN and other horticultural journals that it was not merely heavy soils, but *wet soils*, in conjunction with deep and permanently planted bulbs, that provide the best results in this particular instance. The Poeticus Narcissus, and the older forms more particularly, may safely be regarded as perpetual rooting, and the May-flowering varieties, of which the double white is one, appear to abhor transplanting and all attempts at drying off. To say that Narcissus Poeticus fl.-pl. was really a sub-aquatic might be carrying the point a little

too far, though it is much more immune from "blindness," so-called, when planted by lake or stream and with its root fibres in constant touch with moisture, or even water, than in any position I know. Deep planting—6 inches or 8 inches—too, is very desirable; shallow planting should never be indulged in.

Forced Narcissi.—Under this heading in The Garden for February 26 the Rev. J. Jacob speaks of having to be "content with obvallaris, Henry Irving, Golden Spur, princeps and the old double yellow (Telamonius plenus) if we wish to have Daffodils in the early weeks of the year," and opines that "before long we shall be able to add some different types to our old standard forcing varieties." As a matter of fact, these different types have awaited the apathetic amateur for many years, but he has not taken them up, and the market grower finding them unprofitable has studiously avoided them. Fifteen or more years ago I wrote much on varieties that would force and others that would not, and similar information has been more recently repeated. For example, the typical Leedsii may be had quite well in mid-January, while superba requires about four days longer; indeed, several of the older Leedsiis are most chaste and beautiful when forced. Maximus, albeit a shy-flowering variety, is lovely in mid-January or a little later; while Cynosure, Stella, albicans, Barri conspicuus, odorus rugulosus and the whole gamut of double incomparabilises may all be had in company with the old standard market forced sorts. The inimitable pallidus præcox is a perfect gem in January, and, like Barri conspicuus, is never seen to better advantage than when given glass house treatment. Following the above in quick succession come Horsfieldii, Victoria, Sir Watkin and Emperor in the order named; while P. R. Barr, which responds as promptly as Emperor, is too soft-stemmed under even moderate forcing to be serviceable. Rugilobus is some days in advance of Emperor, though small in flower. Countess of Annesley has a singular beauty of its own and comes with princeps. C. J. Backhouse, like Blackwell, repays for a little more time, and rarely comes good if hurried. Just how good these things may be depends very much on the man at the wheel and his knowledge not only of Daffodils, but of forcing such things. A not infrequent error is that of assuming that earliness to flower in the open will mean a corresponding earliness under glass. It is often the reverse. Early introduction to the greenhouse, too, is another frequent cause of failure, the artificial heat exercising to some extent a sort of retarding influence on the bulbs when too early applied. In these circumstances a later introduction of the same batch will not merely overtake the first, but produce finer flowers. All this and much more has to be learnt by experience.—E. H. Jenkins.

—— I read the Rev. J. Jacob's article on Narcissus in The Garden for February 26 with much interest, and there are the following points which I think I may enlarge upon. With regard to varieties that lend themselves to forcing, I may mention that I have the following in pots in my drawing-room, all doing well: Mme. de Graaff, Weardale Perfection, Victoria, Jeannie Woodhouse, Lucifer, Lobster, Bullfinch, Peach, Lulworth, Nelsonii Ceres and Cassandra, in addition to the more ordinary kinds generally forced. With regard to the depth of pots, I had long thought that the ordinary flower-pot was not suitable for growing Daffodils, and this year I obtained some special pots from Sankey and Sons of Nottingham; the 6-inch pot is 9 inches deep. This enables the bulbs to be planted as deep as in ordinary planting in the garden, and yet gives ample room for root growth. I notice that the roots are showing through the bottom of the pot. I am inclined to think that this may help to obviate the injury done to bulbs by forcing, as the growth is so much more natural.—C. Lemesle Adams, *Pendeford Hall, near Wolverhampton.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

Peaches and Nectarines.—When the fruits in the early house have passed the stoning period, an increase of 5° may be given to the night temperature. Give the borders a thorough soaking with tepid water if dry. Attend to the tying in of the shoots, and keep the trees well syringed. Trees in successional houses will be in various stages of growth, and those in unheated houses have set their fruits.

Vines.—Thinning, stopping and tying of the Vines in the different vineries will require much attention. This work must be kept well in hand for the crop to prove a success.

Plants Under Glass.

Perpetual-flowering Carnations.—The earliest-rooted batch should now be ready to be repotted into 6-inch pots. Use a mixture of two-thirds fibrous loam and one-third well-decayed manure. Add to this old mortar rubble, sand and soot, thoroughly mixing these ingredients two or three times. After potting return the plants to the house for a week or ten days, after which time they may be taken out and put in cold frames.

Balsams.—These are useful for the conservatory during the summer, and a few seeds should be sown at intervals to keep up a succession. They require a rich soil.

Fuchsias.—Pot on young plants as soon as they are well rooted, and keep them in a warm temperature to induce quick growth.

Flower Garden.

Violets.—The propagation of Violets should begin now, either by cuttings or layers. Cuttings can be taken off, dibbled into boxes and placed in the shade, where they will soon root. Increasing them by layers is far the easiest plan. There are usually plenty of rooted side growths which can be planted direct into the nursery beds, where they may remain until they are required for the frames next September. The single varieties may be planted into their permanent quarters straight away.

Sweet Peas.—Assuming that the trenches or places for clumps have been prepared beforehand, planting should now be done. If it is intended to grow them in rows, plant singly 12 inches to 18 inches apart. Clumps should be made up with three to five plants, according to the strength of the variety. As soon as the plants are in their places, short, twiggy sticks should be put to them; these afford a great deal of protection to the young plants till they get established.

Kitchen Garden.

Asparagus.—Where new beds are to be made, now is the most suitable time to plant. The ground should have been selected last autumn, heavily manured and trenched, and allowed to lie rough through the winter. Mark out the beds 5 feet wide, with a 2-feet alley between the beds. Three rows should be planted in each bed 18 inches apart, which allows 12 inches from outside rows to the sides of the beds. Throw out a shallow trench the width of the spade and 4 inches deep. Lay the plants in the trench 18 inches apart, spreading out the roots carefully. The soil from the next trench or row can be used to cover the first row, well working the soil among the roots. The easiest plan is to open the middle row first, placing half the soil one side and half the other. Two year old roots are best for the work. Seed may also be sown now in rows 15 inches apart.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Rose Pruning.—Unlike our brethren in the South, we in the colder Northern districts have serious losses in the Rose-beds. Under these conditions the pruning will be, unfortunately, a very easy matter in too many cases. Some varieties, like M. Paul Ledé and Clara Watson, seem to be wiped out; others that are not quite done for are very poor, and under no circumstances can we now look for a good Rose season this year. The pruning of all sections is so ably described by other writers in The Garden that I need not here enter into details regarding this important work. I may point out, however, that the first week in April is the most favourable time for pruning in the North. Of course, many of the old-fashioned garden Roses may be pruned before this; but the Hybrid Perpetuals, Hybrid Teas and Teas should not, as a general rule, be touched before the beginning of this month. Begin with the Hybrid Perpetuals, and finish with the Teas about the middle of the month.

Pansies and Violas.—After being well hardened off, these useful plants may now be set out where they are to bloom. If possible, give them an entirely new site, as, like so many other plants, they resent being planted year after year on the same ground. While not over-fastidious, the Viola will give by far the best results on deeply worked and fairly rich soil. In our Northern gardens it does well in full sunshine if the soil is of a rather heavy, loamy nature. On very light ground partial shade is imperative. To have really fine Pansies a light shade is necessary; but where these plants are grown only for the garden, this is not of so much consequence.

Other Plantings.—All the hardy plants, cuttings of which were inserted last autumn and wintered in cold frames, should now be got out. These include the Mule Pinks, Heucheras, Alyssums, Aubrietias, &c. One should always have a number of young plants at disposal to replace those killed during winter or worn out by age. Might I draw attention to that charming border plant, Heuchera brizoides. It should be in every garden, and is certainly the freest of all the Heucheras. The flowers are not quite so rich in colour as those of H. sanguinea, but it produces such masses of bloom that it more than makes up for this slight defect. For cutting for table decoration it has few rivals if a light, graceful effect is required. The foliage, too, is very beautiful. Altogether a desirable addition to the hardy border.

Gardening Under Glass.

Pricking Off.—This will demand constant attention, as most of the half-hardy annuals will now be ready for transplanting. Boxes of fairly rich, light soil should be used. It is a mistake to make the soil too rich, as this only induces soft, drawn growth instead of sturdy, branching specimens. Where space, pots and labour are abundant, many of these plants repay the trouble of potting off singly. Indeed, if one wishes to have real success with Zinnias, pricking them into pots of rich soil is imperative. Very few succeed with this beautiful annual. The whole secret is to be careful not to sow too early (the present is a good time), and after sowing never to give the plants the slightest check. If they once stop growing it is all over with them.

The Kitchen Garden.

Peas.—All the finest wrinkled Peas may now be got in, as succession demands. If a row be sown every ten days from now until the first week in June, a constant and abundant supply will be maintained until the middle of October. If Spinach is in demand, sow between the rows of Peas and at the same time.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE FRUIT GARDEN.

FRUIT NOTES.

GRAFTING.—It is most important that all the grafting which has to be done this spring shall be pushed forward with all speed, since the earlier the scions can be inserted after movement is clearly apparent in the stocks the greater are the prospects of success. The principal points to keep in view are to ensure a perfect union of the inner bark, or cambium layer, on at least one side, and preferably, of course, on both, and to see that the waxing or claying in after the ligature is placed on is sound. In the event of clay being relied upon—and such is almost invariably the case when old stumps are worked—it is imperative that the cultivator shall keep a sharp eye upon it, as it is liable to crack, and air will then find its way to the union and probably result in failure. Immediately a crack is seen the ball should be carefully damped and the clay worked over the aperture. Properly made wax is cleaner to use, and has the merit of not cracking when once it is on.

LIME FOR STONE FRUITS.—Fruit is steadily becoming more and more popular with amateurs, who are coming to see that, provided they exercise a reasonable amount of common-sense in the management of the trees from the time that they arrive from the nursery, the probabilities are that their reward will be a very generous one. Those who have sufficient space put the trees in the open quarters of the garden, relying upon bushes and half-standards as a rule, but full standards are now and again planted to considerable advantage. Then, too, there are the walls, and these afford invaluable space for choice stone fruits as well as for Apples and Pears in cordon form. The particular object of this paragraph was not, however, to draw special attention to the advantages which accrue to the amateur who grows fruit, but to the desirability of dressing all stone fruits, Plums, Peaches, Nectarines, Cherries and Damsons, with a little lime at this season of the year. The application should be made on to the surface of the soil from within 1 foot or so of the bole to at least 2 feet beyond the spread of the branches, and after a few days it should be pricked into the surface, taking care not to work down so deeply as to injure the valuable feeding roots near the top.

PRUNING.—Trees which were planted in the autumn, and not at the same time cut back, should have prompt attention when the buds at the extreme tips of the shoots are swelling freely. This is a certain indication that the roots are active, and no better season could be chosen for the pruning. With trees two or three years old it will be wise to reduce the growths by at least two-thirds of their length to form a sound foundation to the plants. Trees planted this spring may be cut back when they start, or if the soil is poor the operation may be advantageously deferred until the autumn.

MULCHING.—If the Blackberries, Loganberries and Raspberries have not yet been mulched, they should be seen to forthwith. All these fruits are of the utmost value in the garden, and the object of the amateur should be to secure the heaviest possible crops of fruits of the finest quality. One of the readiest and most reliable aids to this end is a mulching of short manure spread all over the plantations. Should there be any weeds, these must, of course, be first removed, and the surface may then be very lightly pricked over with a fork, but the tines must never be driven down deeply or the roots will be seriously injured. These details attended to, put on the manure, choosing that which is short and sweet, and cover to a depth of 2 inches.

SOOT AND LIME FOR STRAWBERRIES.—Before long it will be imperative to spread beneath the plants the mulching of long, rich manure, which is, first of all, to provide food for the plants and later to remain as a clean bed of straw upon which the swelling fruits may lie to ripen. It is, however, often wise in advance of this to cleanse the beds of all weeds, lightly fork them over, and then give a dressing of soot and lime. In carrying out any operation of this nature in the spring, it is essential that care should be taken not to damage the roots, which are now working so freely in the ground. FRUIT-GROWER.

THE FLOWER GARDEN.

A BEAUTIFUL RACE OF ALPINES.

THE SHORTIAS.

THE Shortias are among the inimitable gems of our earliest springtime and, unrivalled either in their perfect hardiness or flower beauty, always attract the lovers of alpine plants. A small genus, named in compliment to an American botanist, Dr. Short, of some three species—only two of which are known to cultivators—the plants, untouched by winter cold or the incessant changes inseparable from an English winter, assume not infrequently at that season a leaf beauty of crimson and bronze all their own, and which never fails to catch the eye at a time when few flowers are to be found in the open garden.

SHORTIA UNIFLORA GRANDIFLORA. (*Natural size.*)

The best-known species, S. galacifolia, was first found by Michaux in the winter of 1788 in the mountainous district of North Carolina, though it was not till nearly a century later, after many fruitless attempts, that the plant was rediscovered and eventually found its way into general cultivation. The plants grow in short, compact tufts of from 6 inches to 9 inches high, the hard, evergreen leaves assuming a rich colouring of bronze or rich red in autumn, according to the amount of exposure. In the above-named species the nodding flowers appear in March and April, and, being white, are in effective contrast with the leaves, the coloured stalks and the crimson-coloured calyces. The blossoms, too, are prettily fringed. This species is somewhat variable, and a year or two ago a good rose-coloured form made its appearance.

The other known species, S. uniflora, comes to us from Northern Japan; indeed, it was the finding of this plant in 1868 which led to the rediscovery of the first-named species in North Carolina. S. uniflora is a dwarfer plant, the leaves smaller and more obtuse, the pale pink petals being crimped and veined with white. The flowers, too, are more widely expanded, and not of the nodding or hooded character of S. galacifolia. S. uniflora grandiflora, illustrated herewith, is a large-flowered variety, the blossoms being white with a suffusion of pink. This plant, when exhibited recently before the Royal Horticultural Society by Sir Everard Hambro, received an award of merit.

In cultivation the Shortias respond to shelter from hot sun, and are best grown in peat, sand and leaf-mould in equal parts or to which a slight addition of loam has been made. Natives of thin woods, it is highly probable that, with freer supplies of root moisture or a never-failing coolness about the roots, in more open positions they would succeed quite well and give a more enhanced leaf colouring than is now known. For the alpine house these plants are delightful in the extreme, and it is here that all the exquisite beauty and charm of their flowers is so well seen. E. H. JENKINS.

DAFFODIL AND TULIP NOTES.

DAFFODIL LUCIFER.—Visitors to the great forced bulb show of March 8 will remember that there were several exhibits of this beautiful decorative variety. Had the flower the power of hearing and its perianth of blushing, it would most assuredly have assumed a rosy hue more than once in the course of the show. Many were the encomiums passed upon it. I did not say much about it in my notes of the show, because I had not grown it in pots myself until this year and I was undecided about the perianth lasting. It opens inclined to be weak and floppy, but I find that with age it strengthens and stiffens, and although one would never think it, it lasts a wonderful time. The long, slender and delicate cup is of a beautiful shade of bright orange red, and as the colour is quite unchanged to the last day of its life, it makes it an exceptionally valuable flower to place among other Daffodils to brighten them up on the conservatory stage. My pots lasted three weeks. It is not a tall grower, and hence is suited for front positions. It is very free, and so one gets a fine mass of colour in a comparatively small space.

Mme. de Graaff in Pots or Bowls.—This is now to be bought at about 6s. 6d. or 7s. 6d. a dozen, and so is within the possibilities of pot culture. If any dealer would sell a dozen and a-half good bulbs for half a sovereign, I think I can promise anyone who lays out that sum and with the proceeds makes three pots or bowls, each of them with six bulbs in, a real treat next spring. Like Glory of Leiden, there is something about it that seems to make it eminently suited for pot culture. Very refined is my verdict on this variety when grown under glass for early March flowering.

Colour of the Bulb Receptacles.—There is the greatest variety of shape, size and colouring in the bowls or vases in which the grower of to-day places his bulbs. Just as in a previous note I ventured to call attention to the question of

height, so now I beg to suggest that their shape, and more especially their colour, make a very considerable difference in the effect of the whole when in flower. These little things, which frequently are never thought of, make all the difference. After much consideration I have come to the conclusion that nothing in the way of colour is so suitable as a shade of what the Colour Chart calls "maroon," but which ninety-nine people out of a hundred would call "brown" (Plate 341 : No. 1 or 2), or else a dark madder brown (Plate 334 : No. 3 or 4).

Darwin Tulips in Pots.—If anyone who has the facilities for staging would grow a collection of about fifty to sixty different kinds, they would have a feature of much interest and of great beauty in their house—something to visit daily, or even two or three times a day, and at every returning visit to see something fresh. Tulips never seem the same twice together, and they are not the same. The waxing and waning of their colour; the different effect of sun and cloud; the mellowing of age; the beauties of the interior and the base, now exposed to view and anon hidden; all these things make Darwin Tulips at all times interesting, but doubly so when they are seen for the first time in early spring. The floor of a winter garden and a very low stage in a cool greenhouse are suitable positions for the display; any position, in fact, where we can look down on them, for only thus can we see their full beauty. With the greatest ease they can be had in bloom from March 10 onwards. If the whole collection is staged at once, both the earlier and the later ones indiscriminately, unless the season is peculiarly warm and sunny, there will be many in good condition at the end of three weeks, and some even at the end of four.

Double Tulips in Pots.—The names of a few good kinds may be acceptable to some who wish to try a few another year. In yellow shades, Couronne d'Or (orange yellow) and Toreador (crimson centre, with deep orange edges); in pinks, Rose d'Amour (pale salmony pink) and Lord Rosebery (large cold pink); in red shades, Lord Beaconsfield (deep rose) and Luminosa (semi-double, vivid scarlet red); in whites, Murillo (blush) and White Murillo (magnificent pure white, very large, like a Pæony) are all attractive flowers in their respective colours. If to these are added Lac van Haarlem (lilac), Salvator Rosa (loose rose and blush), William III. (red) and Safrano (pale yellow, like a Maréchal Niel Rose), a good and varied collection would be formed.

Joseph Jacob.

AN EARLY FLOWERING ROCK PLANT.

(Synthyris reniformis.)

The plant shown in the accompanying illustration, from a photograph taken towards the end of February of this year, shows Synthyris reniformis, of which I wrote in The Garden of March 5, page 110, under the title of "An Early Flowering Rock Plant." As I have referred to it so lately, it is unnecessary to repeat what I have already said, save that it generally comes into bloom with me in February and lasts for a considerable time, and that it is grown here in loam, leaf-soil and sand, and in the rock garden with stones about it. I find that it prefers sun, but accompanied by plenty of moisture. It grows only a few inches high, and is an acceptable little plant with bright blue flowers and pretty glossy, toothed, kidney-shaped leaves. The figure in the *Botanical Magazine* 112, t. 6860, does not do justice to the colour. It is, in my opinion, the best of the genus. There is said to be a white variety in North-West California and further north, but I have not heard of its existence in this country. Such a valuable hardy and pretty little plant ought to have a much greater share of favour from all lovers of rock plants.

Sunnymead, Dumfries. S. Arnott.

THE FASCINATION OF THE CROCUS.

(*Continued from page 154.*)

Autumnal Croci.

Misunderstood is the word that best sums up the position of the Autumn Croci in the minds of most ordinary gardeners and travellers; first, by being frequently confused with autumnal-blooming Colchicums and Sternbergias. When I make any effort to get some desirable autumnal Crocus collected for me in its wild home, it is generally not until all the Colchicum, Merendera and Sternbergia species of that district have been sent to me that any true Crocus appears.

The two questions that are most frequently put to me are: What can I plant in a dry spot, under trees, facing north-east, &c.? and, What is the lovely mauve Crocus that covers the meadows in Switzerland, or Northern Germany, in the autumn? I sometimes think of having printed replies prepared to hand to questioners.

I early learnt to be careful in distinguishing the Autumn Crocus from the Meadow Saffron, and thus it happened: Very many years ago now, I regret to say, when I was beginning to learn and collect plants, I was taken to visit a very distinguished garden-lover in Devonshire. On going out into the garden I was asked to name a group of large rosy lilac flowers. "A Colchicum," said I, cautiously, "but I am not sure——," and I got no further, for the reply came, "Oh, that will do. I know, but I always ask people that, and if they call it a Crocus I won't give them a thing." I still highly value many of the lovely plants I carried away with me from that richly stored paradise, and bless my luck in having known just enough not to call it a Crocus.

In case any of my readers feel they are doubtful as to the differences between these plants and would wish to successfully pass a similar examination in botany, I offer these hints with many apologies to the learned majority of the subscribers of The Garden.

A Crocus is an Irid, as is plainly shown by its style dividing near its summit into three branches, which form the stigmata, and also in having but three anthers.

A Colchicum and a Merendera are Lilies, and so are entitled to six anthers. Their styles are divided into three right down to their bases, where they join the ovary, and throughout their length are thread-like, never possessing the expanded or much-divided stigmata of most Croci. Their ovaries are deep underground at flowering-time, and what appears to be the stalk of the flower is a tube made up out of the lower portions of the *segments of the perianth.*

For botanists do not speak of petals and sepals in these monocotyledonous plants with six cleft flowers. The six divisions may represent three of each, viz., petals and sepals, but are often so much alike that one term seems to fit them better.

In Colchicum this perianth tube is a real one and all in one piece. Merendera can be easily recognised by the segments being divided right down to the base of the ovary, and being hooked together in a young flower so that they look as if they formed a tube; in an overblown blossom the hooks lose their hold and the segments scatter apart. Sternbergias are Amaryllids, and their ovaries are placed below the perianth segments and are carried up above ground on a stalk at flowering-time.

AN EARLY FLOWERING ROCK PLANT (SYNTHYRIS RENIFORMIS).

That autumnal Croci are delicate and hard to grow are other misconceptions freely indulged in. I feel sure that in any garden in the United Kingdom that is not inundated for any lengthy period there must be many a border that, once planted with C. speciosus or zonatus, could never again be entirely cleared of these prolific beauties without the thorough removal of the soil.

Zonatus begins to flower in September, and until the lovely creamy white vallicola and the deep yellow Scharojani, of which I have already made mention, become cheaper and more amenable to cultivation, will, in most gardens, be the first species to appear each autumn. The flowers appear before the leaves and are of a soft rosy shade of lilac, approaching nearer to the colour of most Colchicums than any other Crocus. The specific name refers to the zone of rich orange in the throat, composed of a ring of spots, two on each segment. The corm of zonatus differs from that of others known to me, first, in being very flat and symmetrical in outline, one or more protuberances appearing towards the circumference; again, in producing quantities

of small offsets, somewhat comparable with the spawn of Gladioli or the offsets of Irises of the reticulata group. In this Crocus they are in shape, colour and texture much like a grain of Wheat, and being so small and falling off easily from their parent, it is very difficult to find and remove them should it be desired to do so. The individual blossoms are of too delicate a substance to last long, but a good succession is kept up for several weeks.

I am ever hoping to get a white seedling, and with such a pale-coloured species one would think it a most reasonable expectation; but this and longiflorus, which has also much rose colour in its tint, have, so far as I know, never produced albinos. The white zonatus that have occasionally been rumoured and even offered in catalogues have blushed under my searching gaze when I tried to justify the long price they had appended to them, until they matched their rosy brethren. Good white forms are known of all other lilac autumnal Croci which are at all widely cultivated, so I still live in hope.

Speciosus most fully deserves the title of *the* Autumn Crocus. These are some of the points in its favour: It is the tallest of all, is very robust, not particular as to soil or situation—even doing well under thin trees and in shade—increases rapidly both by seed and minute spherical offsets as hard to eradicate as those of zonatus; it is of a distinct colour, more nearly blue than in any other, and beautifully freckled with various shades of purple outside and veined with dark blue inside; the stigmata are brilliant orange, almost scarlet, and make a fine contrast with the blue; and it flowers very freely from the end of September for some six weeks. I have a late form I bought as var. globosus that is at its best as a rule in November. As a final virtue, it is cheap to buy. If possible, it should be planted in August, and fairly deep; then it may be left undisturbed for many years.

There is much variation in the extent of the veinings and the depth of the ground colour. The finest form is known as var. Aitchisonii. I have so far failed to find the publication of the name. It is larger than the type and the segments are more pointed. In a specimen I dried I find they measure over 2½ inches in length, which is as long as in any of the giant forms of vernus, such as purpureus, grandiflorus, White Knight, &c. It is of a pale uniform lavender externally, deeper inside and veined with purple. This best form is rather scarce, and those often sold for it are a mixture of pale forms much more like the type.

A fine pure white form appeared among some collected for Mr. van Tubergen in Schemacha, but I admire still more a seedling I raised here with pale lilac veining on an almost white ground.

Pulchellus is closely related to speciosus, both having annulate corm tunics. It is of a paler lavender and the veining of the inner segments not so much branched. Its chief beauty lies in the rich orange spots in the throat and the pure white anthers, which give it a dainty and refined effect. It flowers in the latter part of October as speciosus is beginning to wane. I find here an intermediate form, where the two grow close together, that is so markedly intermediate in all the distinguishing characters that I have described it as a hybrid (see *Gardeners' Chronicle*, November 9, 1907). The cream-coloured anthers and yellow throat catch the eye and show it is distinct from either parent. The white form of pulchellus is very lovely, of good substance, and the orange of the throat shows up even more than in the lilac form.

Among the earlier autumnal species must be placed byzantinus, also known as iridiflorus, from the Iris-like appearance of an expanded bloom, owing to the disparity in size between the outer and inner segments. These latter are very small, pale and sharply pointed, while the outer are exceptionally wide and fall outwards, resembling the falls of an Iris, and are of various rich shades of lilac or purple. The late Mr. Allen raised some beautiful seedlings, of which President and Rosamond are the best. There is a white form, but it is rather flimsy in texture, and its finely cut stigmata are pale straw colour, thus lacking one of the chief charms of the type, in which they are bright lilac, and so unique in the genus, as in the spring-flowering carpetanus there is but a very faint tinge of lilac on the stigma. Byzantinus does best with me if grown in shady places, such as the north-west side of large stones in the rock garden and close inside the front wall of my cold frame, which means at the foot of a north wall. But I have seen it flourishing well in a south border in a neighbour's garden.

Waltham Cross. E. AUGUSTUS BOWLES.

(To be continued.)

A GARDEN ON A ROOF.

ROOF GARDENS.

SEVERAL questions have been asked lately about roof gardening, and we think the accompanying illustration and notes will be helpful to those who wish for advice on this subject: "Flat roofs and walls are becoming popular. Strongly made with concrete and surrounded with a balustrade of good design they are adapted for many purposes. As for the outdoor roof garden, hundreds of fine subjects in flower and foliage are here to adorn it, rendering such a place ornamental above, as well as improving the look of the buildings. On the roofs of large mansions there is no limit as to what may be used so long as situation and climate are suitable and sufficient soil is provided for the requirements of the plants chosen. What has been noted of nobler buildings applies to outhouses, sheds, &c., places that are met with everywhere often in a painfully dismal state. For simple roof decoration the potting shed here illustrated may be mentioned. Such methods require little preparation. The soil should be 10 inches or 12 inches in depth, and may well rest with drainage on the slates, &c., if these are not set at too high a pitch. With a sunny exposure numbers of hardy plants will become well established and blossom abundantly. In roofs of small size only the sides need be of woodwork. In this example two of the finest flowered subjects are Veronica Teucrium dubia, with its brilliant blue flowers, and the double crimson Catch-fly, the usual garden variety of an extremely pretty and rare native plant, found on cliffs not easily scaled. The Sun Roses (Helianthemums) are, of course, perfectly happy, but many will quickly outgrow their positions. A little starvation, however, in the case of these gay flowers will cause an increase and a longer period of blossom. H. canum, a scarce British plant, is a very low creeping shrub well adapted for this purpose, as it has a perennial hoariness. For the latter tone there are, however, none to equal in usefulness the Achilleas and Antennarias. Achillea Clavennæ and A. umbellata are two of the finest silvery species; A. rupestris and A. Huteri are among the best of the small green-foliaged species. Æthionemas, too, that are sometimes unkindly treated by the cold or damp of the level border, would find a welcome place on sunny roofs. Then other subjects, more or less ornamental all the year round, are Cerastiums, Lithospermum prostratum, Pinks of many species and varieties, Iberis gibraltarica and the Euphorbia Myrsinites.

"Those long-suffering plants the Stonecrops and Houseleeks are, of course, satisfied with a mere inch or so of soil. On mossy, tiled roofs they grow, flower and topple about without any attention. The luxuriant surface of an old thatch is an oasis. Where these picturesque rural roofs are, some of our native succulents are sure to be seen. Maybe they are represented by a carpet of the small Sedum acre, which when in flower can but be equalled in brightness by a field of Mustard or the Houseleek; this, when isolated, grows into the size of a young Lettuce, and when crushed by its ever-growing children is content to live a restricted life. The best for this purpose is the Cobweb Houseleek."

THE ROSE GARDEN.

WICHURAIANA ROSE FRANCOIS FOUCARD.

THE newer wichuraiana Roses are among the greatest boons which have come to the assistance of the gardener — amateur or professional — who desires to render his garden picturesque and attractive. Many of them are pictures of beauty even before they bloom, on account of their exquisite glossy foliage, while the greater number flower with the utmost freedom and adorn themselves with blooms which, though comparatively small, are of exquisite beauty. They are especially valuable for pillars and trellises, and their presence in many a garden has given it an aspect of the highest beauty. Their cultivation is easy in the extreme, and pruning is confined to cutting out some of the old branches, thinning out the weakly wood and only shortening the new shoots which spring from the base. A good supply of manure is advisable, and occasional waterings with weak liquid manure are beneficial. The shoots should be tied in loosely, and with these few details they will generally afford an annual source of delight to all.

The variety François Foucard, shown in the accompanying illustration, is one of the best in a fair-sized collection and one which is not too well known. It has foliage of the greatest beauty and multitudes of medium-sized flowers of a fine creamy or lemon yellow, deeper when first opening and passing off lighter. It is an excellent variety and can be confidently recommended. The plant shown is growing in a Scottish garden in the South-West, and just on the outskirts of a town of upwards of 20,000 inhabitants, where there are several factories emitting a fair amount of smoke. It is in a position which is much exposed to wind and is facing north-west, but receives a considerable amount of sun. This specimen has been planted about four years, and completely covers a pillar some 9 feet high. S. A.

ROSE AUSTRIAN COPPER.

GLANCING through that excellent work on the Rose written by the Rev. Joseph Pemberton, I was much struck with a remark that he had seen the above glorious single Rose growing on rectory walls 12 feet high. Moreover, the plants were growing in hard gravel. What a sight such plants must be when in full bloom! Why, even an ordinary 4-feet to 5-feet plant will make a veritable glow like a burning bush; so what must such plants be like as those described above? And yet how rarely we find the Copper Austrian Rose in gardens, at least in a healthy state. One frequently sees miserable, half-starved specimens that look the picture of ill-health, probably owing to the location, but more probably, I think, from being budded on the Manetti stock. I think this Rose should be on its own roots if we would see it at its best, and it is very readily layered if the growths are put down in June. A good hint is thrown out by Mr. Pemberton, and that is to bend over the summer shoots to induce them to break for another year. This plan might be more often adopted with several varieties where they are somewhat slow in producing new wood. It is sometimes better than cutting out the old.

I recently had some old pot plants of Betty that appeared to be slow in making new wood although planted out; but by bending the old growths out nearly in a horizontal position the basal eyes have started and are already a considerable length, which should flower splendidly by the end of the month. I am convinced Austrian Copper will yet play an important part in hybridising experiments. P.

ROSE FRANCOIS FOUCARD IN A SCOTTISH GARDEN.

MILDEW-PROOF ROSES.

A LETTER FROM VICTORIA, AUSTRALIA.

MR. S. BRUNDRETT, Essendon Rose Nursery, Moonee Ponds, Victoria, kindly writes: "As a reader of THE GARDEN I have noticed on several occasions articles on mildew-proof Roses. I enclose a list of sorts that have been proof against the fungus in Victoria for several years; it would be interesting to know if these varieties are mildew-proof in Great Britain. "I herewith give a list of forty-one distinct varieties of Roses that are mildew-proof. It is one of the mysteries of Rose culture that we have so many Roses embracing every colour known in the Rose family that are free from mildew. They may be planted in the shade of a house where the sun never shines on them; we can water them or leave them dry as dust; feed them or let them go hungry; they are still proof against the fungus. There have been many reasons given by various Rose-growers. Some say it is the plants with thick leather-like leaves that are mildew-proof. Let anyone examine the leaves of these forty-one varieties; you will find no two alike. Some have thick glossy leaves, others, like Boadicea, have rather thin leaves; so it is not in the leaf that we must look to solve the mystery. I have budded Alice Grahame on Maman Cochet; the former is still subject to mildew. I have had the two growing on one root; Alice Grahame still gets mildew, Maman Cochet is still free. Two years ago I noticed a peculiar thing about these Roses that are free from mildew. On the young leaves of every one of these forty-one Roses I found small brown spots; these spots seem to disappear as the leaves get older. I examined plants that are subject to mildew, but have never found the same sort of spots on them. When I saw these spots, I thought it was a fungus of some sort, and that it was this that made them mildew-proof; but Mr. McAlpine, the Government pathologist, very kindly examined them for me, and informed me it was not a fungus. I am not going to say that these spots have anything to do with the Rose being proof against mildew; but if I wish to know whether a Rose is mildew-proof or not, I have a habit of looking for these spots.

"Now, in looking through this list of forty-one Roses, I find the first mildew-proof Rose was raised in 1859 by Robert, who named it Homer, and it is classed as a Tea. There are now twenty-eight Tea Roses, eleven Hybrid Teas and two China Roses that are mildew-proof. Of these W. Paul and Son raised eight; Soupert et Notting, seven; Nabonnand, five; Hill, three; and several other growers, one each. I failed to find one Hybrid Perpetual Rose that was mildew-proof. I have no doubt that the first parent of our mildew-proof Roses could be traced back to the China Roses, but 1859 is as far as I have any record. The list is as follows:

"Homer (T.), Robert, 1859; Papa Gontier (T.), Nabonnand, 1883; G. Nabonnand (T.), Nabonnand, 1889; Rainbow (T.), Dingee, 1891; Mme. Eli Lambert (T.), Lambert, 1891; Maman Cochet (T.), Cochet, 1893; Fiametta Nabonnand (T.), Nabonnand, 1894; Sylph (T.), W. Paul and Son, 1895; Queen Mab (C.), W. Paul and Son, 1896; White Maman Cochet (T.), Cook, 1898; Grand Duchess Anastasia (H.T.), Nabonnand, 1898; Queen Olga of Greece (T.), W. Paul and Son, 1899; Alexander (T.), W. Paul and Son, 1900; Corallina (T.), W. Paul and Son, 1900; Mrs. B. R. Cant (T.), B. R. Cant, 1901; Boadicea (T.), W. Paul and Son, 1901; Mme. Vermorel (T.), Mari, 1901; Mme. Edmée Metz (H.T.), Soupert, 1901; Peace (T.), Piper, 1902; Dr. Felix Guyon (T.), Mari, 1902; Mme. Jean Dupuy (T.), Lambert, 1902; Souvenir de Pierre Notting (T.), Soupert, 1902; Mme. Antoine Mari (T.), Mari, 1902; Arethusa (C.), W. Paul and Son, 1903; Annie Marie Soupert (H.T.), Soupert, 1904; Reine Marguerite d'Italie (H.T.), Soupert, 1905; General McArthur (H.T.), Hill, 1905; Souvenir de Maria Zayas (H.T.), Soupert, 1906; Rhea Reid (H.T.), Hill, 1908; Mme. Louis Grassett (T.), Goddard; Marquis de Aledo (T.); Baron Ada (T.), Soupert; Mme. Philemon Cochet (T.); Marie de Orleans (H.T.); Mme. Gamon (H.T.); E. T. Cook (H.T.), W. Paul and Son; General Schablikine (T.), Nabonnand; Augusta Compte (H.T.), Soupert; Climbing Papa Gontier (T.); Climbing White Maman Cochet (T.); and Climbing Maman Cochet (T.). Twenty-eight Teas, eleven Hybrid Teas and two Chinas; total, forty-one. Paul eight, Soupert seven, Nabonnand five, and Hill three.

"*Doubtful Varieties.*—Sinica Anemone, sinica alba, Mrs. A. Byass, Mai Fleuri, Claire Jacquier, Field Marshal, Rose de Evian, Cecile Brunner, Triumph, Banksian (white and yellow), and Banksian (fortuniana)."

GARDENING FOR BEGINNERS.

BIG BUD IN BLACK CURRANTS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—Where it is intended to plant a new Asparagus bed, the present is an excellent time to get the roots in. The soil must have been previously deeply dug and well manured, and, if naturally of a heavy, clayey character, must have had a liberal addition of road scrapings, burnt garden refuse,

1.—BLACK CURRANT SHOOTS AFFECTED WITH THE BIG-BUD MITE. NOTE THE SWOLLEN AND ROUNDED BUDS.

and similar ameliorating substances. With soil of this character it is well also to raise the bed a foot or so above the alleys, as this assists drainage. Beds 4 feet 6 inches wide are a useful size, and three rows of plants will go into each bed, one down the centre and one at each side, about 10 inches from the edge. It is highly essential that the roots do not get in the least dried by the wind and sun before being planted. Trenches from 4 inches to 6 inches deep must be taken out for the plants, and the bottoms of these should be shaped thus, Λ. The plants are placed from 1 foot to 15 inches apart in the rows and so that the roots hang down on either side of the ridge, the crown resting on the top. Cover with rather fine soil as the work proceeds, and thus prevent any drying of the roots. Generally speaking, two year old roots are the best for planting, and no heads should be cut from these the first summer after planting has been done. Connover's Colossal is an excellent all-round variety for amateurs to grow.

Flower Garden.—There is nothing to be gained by allowing Gladioli corms to remain longer out of the ground, and steps should be taken towards getting them planted. An open, sunny position should be selected, no matter whether it is a whole bed that is to planted or only clumps in the herbaceous border. In any case holes from 4 inches to 6 inches deep must be made for their reception, and if the soil is at all heavy, some coarse sand should be placed in the bottom of the hole previous to placing the corm in position. It is also a good plan to cover each corm with sand before filling in with the ordinary soil. A good distance apart to plant is 6 inches. In the case of clumps in the border, these should consist of six, nine or twelve plants, according to the size of the border. A bed of all one colour, or shades of one colour, will make a brilliant display in late summer and early autumn. If desired, Gladioli may be planted among the Roses grown in beds, and will provide flowers at a time when the Roses are almost, if not quite, devoid of blooms.

Rose Garden.—The pruning of Ramblers, Hybrid Perpetuals, and even the Hybrid Teas may be attended to during the next week or two, dealing with them in the order named above. Teas will, generally speaking, be best left until the middle of the month. Ramblers, if properly attended to last summer, will need little attention beyond the cutting away of the soft tips of the shoots, these afterwards being neatly tied in position. All such as Dorothy Perkins and Crimson Rambler should have had the old rods cut clean out as soon as they had finished flowering last summer. I find that special care is needed in handling Ramblers this spring owing to the forward state of the buds, as these are very easily rubbed out. Hybrid Perpetuals and Hybrid Teas must be pruned according to the vigour of the variety and the purpose for which blooms are intended. A good general rule is to cut weak-growing sorts back severely and the stronger-growing ones less severely; indeed, except where extra large and full blooms are required for exhibition, there is little need to do more than cut away weak shoots and the soft tips of the stronger growths. After the bushes have been pruned, the beds should be given a 6-inch thick dressing of well-decayed farmyard manure and bone-meal, 4oz. of the latter to each square yard, and this forked lightly in so as to make the bed tidy. Owing to the difficulty experienced in procuring farmyard manure, I have for the last two years relied on Wakeley's Hop Manure, and find this answers admirably, the Roses coming a brighter and altogether better colour where it has been used.

Greenhouses and Frames.—The principal work in this department just now will be the pricking off and potting on of various seedlings and rooted cuttings. This work is more important than the beginner in gardening may think, as any neglect, even of a week's duration, may make all the difference between success and failure. Young plants under glass grow very rapidly at this season, and if allowed to remain too thick become drawn and weak, and once they get into this state, no subsequent treatment is likely to bring them to a robust condition again. Watering, ventilating and shading must also receive close attention. Plants intended for summer bedding must be kept as near the glass as possible and receive free ventilation, as it is highly desirable that hard, sturdy growth is made. Insect pests, and particularly green fly, may be relied upon to increase very rapidly just now, and frequent fumigations will be needed to keep it in check. Where only a few plants are attacked, the insects may be routed by spraying with a nicotine insecticide. A. A.

BIG-BUD IN BLACK CURRANTS.

JUDGING by the number of shoots received for inspection during the course of a year, there are many amateurs yet who are unable to determine whether their Black Currant bushes are attacked by the big-bud mite or not. For this reason the two accompanying illustrations have been prepared. A close inspection of the shoots in Fig. 1 will reveal the presence of a number of swollen, rounded and blunt-pointed buds, every one of which is attacked by the mite. To prevent any confusion, the very few buds on these shoots that were not so attacked were removed before the photograph was taken. In Fig. 2 some Black Currant shoots are also shown. In this instance, however, all the buds are unaffected by the mite. It will be seen that they are much more slender and pointed than those shown in Fig. 1. Frequently sound and affected buds appear on the same shoots. Those buds which are attacked by the mite will not flower, and it is seldom that they form leaves of any size. Generally they open to some extent, form a very small, distorted leaf or two, and then die. The shoot on the left of Fig. 1 has two black-looking buds below the kink which were killed in this way last year. During the last decade this pest of Black Currants has cost growers in this country many thousands of pounds, and many have been the methods adopted to bring about its extermination. Unfortunately, none of these appears to be entirely satisfactory. One of the most tried and, it persisted in, reliable remedies is to pick off all affected buds, drop them into some neat petroleum, and when the work is completed burn the lot. This, at any rate, gets rid of any mites that are present in the buds at the time these are gathered, and, as stated above, if persisted in for several seasons this method of dealing with the pest will prove effective. A treatment that has proved effective in some cases is to dust the bushes while damp, at fortnightly intervals from the middle of March until the second or third week in May, with a mixture of finely ground unslaked lime and flowers of sulphur, one part of the former to two of the latter. In any case this is worth trying in conjunction with the picking off of the affected buds. In the spraying calendar

2.—BLACK CURRANT SHOOTS NOT AFFECTED WITH BIG-BUD MITE. COMPARE THE CHARACTER OF THE BUDS WITH THOSE SHOWN IN FIG. 1.

3.—BUDDLEIA VARIABILIS VEITCHIANA BEFORE BEING PRUNED.

of the Woburn Fruit Farm immersing of suspected bushes in water maintained at a temperature of 115° Fahr. before planting is recommended. It is the duty of all who grow Black Currants to see that their bushes are kept free from the pest, as it is only by concerted action that its extermination can be brought about.

HOW TO PRUNE VARIETIES OF BUDDLEIA VARIABILIS.

The several beautiful forms of this excellent hardy flowering shrub are now being distributed freely throughout the country, and doubtless many amateurs are at a loss to know how they should be treated. Like a few other flowering shrubs which give us their blossoms in autumn, these Buddleias are best if pruned back severely each spring, the present being a good time to do the work.

The plant shown in Fig. 3 is Buddleia variabilis veitchiana, one of the best of the varieties. This shrub when photographed was about 6 feet high, and was in the same condition as it had been all the winter. A close inspection of the illustration will reveal a few of the old flower-heads at the ends of the stems, though the largest of these were cut off when the flowers were at their best last autumn. It requires some courage on the part of a beginner in gardening to cut a shrub of this size back so severely as is desirable, and for this reason the same plant is shown in Fig. 4 on a larger scale after pruning has been completed. It will be noticed that all the young shoots that were formed last year, and which produced blossoms then, have been cut back nearly to the points from which they originated. This hard pruning will induce the bush to throw up other strong shoots during the coming summer, and these may attain a length of 4 feet to 6 feet. At the end of each a large semi-pendulous raceme of mauve-coloured flowers may be expected to form, and the whole shrub will present a picture of great beauty.

This hard pruning of these shrubs in spring has two advantages, viz., it enables the grower to keep them in bounds, and also induces the shrub to form vigorous young shoots, without which large flower-heads could not be secured. When the pruning is finished, and provided bulbs or other early spring-flowering plants are not grown beneath the Buddleia, the latter should be given a 4-inch thick dressing of well-decayed manure, as this will greatly assist in the formation of sturdy, vigorous flowering shoots.

Another splendid variety of this Buddleia is that known as B. variabilis magnifica. This has even larger flower-sprays than the plant illustrated, and the colour is richer. Butterflies and bumble-bees seem very fond of the flowers of these shrubs, and hosts of them may be seen flitting around and alighting on the blossoms during the time when they are at their best. The shrubs are easily grown, and for that reason are ideal for beginners in gardening. H.

LILIUMS UNDER GLASS.

One may talk about the charm of the Lily, but it would be quite unnecessary to attempt to make it more lovely than it is. "Lovely as a Lily," "Pure as a Lily" and similar phrases are constantly used even by persons who never grow them and rarely see them, but who know full well that they are paying a very high compliment.

The outline of the flower is clear and defined, the plants are free in the production of blossoms, and the latter last fresh for a considerable time. Moreover, they are deliciously fragrant.

Delicate as are Lilums in texture and appearance, they are quite in the forefront as suitable plants for growing in towns and in suburban districts.

In regard to the potting of the bulbs I will only say a few words here, and my remarks refer to purchased bulbs. The potting must be done at once. Use pots according to the size of the bulbs, 6-inch, 7-inch and 8-inch ones being the most suitable. Thorough drainage must be provided and a rich, light compost—fibrous loam, two parts; leaf-soil, one part; and well-rotted manure, one part. Sand or grit must also be given in sufficient quantity to make the mass porous. When the bulbs are potted the pots should be about three-parts filled, not more. It is only necessary to keep the frost away during the early stages of the plant's growth. At the present time, no doubt, many amateurs possess plants that have remained in the pots all the winter. In a very short time it will be too late to shake away the old soil from them. Even if there are signs of active growth now, there need be no hesitation in removing the soil. The bulbs should then be repotted and allowed to grow on under the coolest conditions consistent with the exclusion from frosts. These bulbs will provide late blossoms.

In due course there will be a grand display of blossom, which may be prolonged for a considerable time if the bulbs are potted and brought into growth in batches.

The strong, recently purchased bulbs will, in a short time, require a top-dressing. In nearly every instance roots grow from the stems just above the soil level, and it is on account of this that the bulbs should be potted low down in the pots. The new top-dressing material must be put on very carefully, so as not to damage these stem-roots. The stems, roots and bulbs of Liliums are very succulent, so much care must be exercised in the matter of watering. Over-watering would soon be apparent in the effect it would have on the leaves, which would quickly turn yellow. No feeding must be done until the pots are well filled with roots. At all times when the weather is favourable abundance of air should be admitted. Green fly is easily kept down by slight fumigations or by vaporising.

The following are suitable varieties to grow in pots: Lilium auratum, L. Harrisii, L. longiflorum, L. speciosum, L. s. Krætzeri, L. s. album, L. s. Melpomene, L. s. rubrum, L. s. roseum and L. candidum. The latter may be forced, also L. Harrisii and L. longiflorum. B.

THE TOWN GARDEN.

Choice Border Carnations.—The "border" Carnation separates itself from the perpetual-flowering variety by the mode and manner of its growth, the "grass," as the young shoots of the former are termed, usually encompassing the stem near its base, lying in a semi-procumbent manner on the ground. In this way the shoots readily adapt themselves to layering; hence another name for these is "layers." Of such a type is the well-known and ever-popular Old Crimson Clove, renowned for its strong perfume wherever the English language is spoken. From the florist's point of view the Old Clove is a rough, unkempt sort of flower; and, indeed, between that variety and the choice border or fancy varieties of the present time there is a wide gulf, which each year becomes wider as the florist hybridist improves upon existing sorts. To-day, whether in the selfs or yellow-ground fancies, a very high degree of perfection has been reached, of which those who like to be up to date in such matters may wish to avail themselves. Doubtless, too, many readers would like to make a speciality of these Carnations, and certainly no flower will better repay a little extra care than these.

Culture Under Glass.—Those who possess a small greenhouse may like to grow the plants therein, and in no other way, despite their hardy nature and their general fitness for open-air cultivation, will the flowers attain such perfection. Pot cultivation would have to be resorted to, and there is no better time than the present to make a start. By cultivating a portion of the plants in the greenhouse and another portion in the open a long succession of flowers result. Here are a few of the most recent novelties: Maharajah, glowing crimson; Royal Scarlet, rich in colour and fragrance; Silver Fox, heliotrope; Honeymoon, white; Solfaterra, yellow; and Lady Bury, rose. These are selfs. Among new fancies Tantalus, The Justice, Linkman, Hercules, Father O'Flynn and King Coffee are of the highest merit.

Planting Violets.—So many enquiries reach one as to the cultivation of the Sweet Violet that

4.—THE SAME SHRUB AFTER PRUNING HAS BEEN DONE. NOTE HOW SEVERELY THE SHOOTS HAVE BEEN CUT BACK.

no apology is offered for again reminding my readers that the showery weather of early April is the best time for the work of planting. Very many who grow these delightful flowers have only the vaguest idea of the requirements of the plants, and the old stools or portions of them are grown on from year to year with quite

indifferent results. Much the best plants for producing good flowering crowns are the product of well-rooted single crowns planted in early April, and such as these, despite their apparently small size at planting-time, will quickly overtake those plants of larger size that have become more or less exhausted by a long-continued flowering. Young plants, therefore, should be raised or purchased each year. Badly diseased plants should be burnt without the least compunction, as it is impossible to propagate the Violet without propagating the diseases which too frequently are inherent in the plant.

Tufted Pansies.—By planting a selection of these at the present time, a late summer flowering will be secured which will constitute a capital succession to those planted in autumn. To make sure that the plants obtain a good start, a soaking of water should be given to the roots in the trenches before covering in. Here the moisture will be in touch with the majority of the root fibres, which is a great advantage. The best type of plant is the well-rooted cutting, which at this season is usually endowed with a few vigorous shoots about its base. It is probable, too, that the young plants may give promise of an early flowering, though the amateur will be well advised to discourage any flowering till the plants have become established.

"Jacks."—A Warning.—A "Jack" is understood in the market to be a Carnation of a worthless type—strong, vigorous-looking seedling plants, and single-flowered to boot. Usually at this season the itinerant street hawker may be seen in suburban districts with a well-filled basket of the plants, to which the names of the leading aristocracy and others have been given. Such plants are worthless, and I warn my readers concerning them accordingly.

E. H. Jenkins.

FLOWER BORDERS.

WHEN spring is with us our thoughts turn to other things concerning the garden than the mere contemplation of Daffodils in grass or the starry hosts of Chionodoxas; it is the season to plant or renew the mixed or, as it is also called, the "herbaceous" border. Many letters are received during the year asking for help in the formation of such a border; and we may at once say that to maintain a strip of ground almost in even beauty, so to say, for many weeks in the year is difficult, and requires constant supervision to fill blanks as the flowers fade away. But those who contemplate creating such a beautiful feature in the garden should certainly consult the Supplement to the "Manual of Horticulture" called "Gardens of Delight," which Messrs. Kelway and Son of Langport have recently issued. It is one of the most convincing brochures on the subject we have seen, and the result of years of painstaking effort to help garden-lovers in solving a difficult problem. The authors have sought the highest opinions on this fascinating subject, and this adds to the value of the information given in these well-illustrated pages. Mr. William Robinson, in his "English Flower Garden," writes of the beauty of hardy flowers as follows. Bedding plants are not used, of course, to the same extent as they were years ago, but there is still too little thought given to the perennials that have beauty of flower colouring and strength of growth to commend them to the gardener. "There is nothing whatever used in bedding out to be compared in colour, form or fragrance with many families of hardy plants. There is no beauty among bedding plants at all comparable with that of Irises, Lilies, Delphiniums, Evening Primroses, Pæonies, Carnations, Narcissi and a host of others. Are we to put aside or into the background all this glorious beauty for the sake of a few things that merely give us flat colour? No one who knows, even to a slight extent, what the plants of the northern and temperate world are can admit that this sort of gardening should have first place. There is nothing among 'carpet' plants equal to Windflowers in many kinds (flowering in spring, summer and autumn), Torch Lilies (superb in autumn), Columbines, Harebells, Delphiniums, Day Lilies, Everlasting Peas, Evening Primroses, Pæonies, Phloxes, Ranunculus (double and single), and the many fine species, all the noble autumn-blooming Daisy-like flowers, Scabious, plumy Spiræas, Globe Flowers, Lilies (in noble variety), Polyanthuses, Primroses, Auriculas, Wallflowers, Meadow Saffrons, Crocuses of the spring and autumn, Scillas, Gladioli, Snowflakes, Grape Hyacinths, Narcissi (in lovely variety), Tulips (the old florist's kinds and many wild species), Yuccas, Carnations and Pinks, Dielytras, Cornflowers, Foxgloves, Stocks, Starworts, Great Scarlet and other Poppies, Christmas Roses (both of the winter and spring), Forget-me-nots, Pansies, and many of the rock plants of the mountains of Europe—from the Alps to the hills of Greece, cushioned with Aubrietia and sky-blue Windflowers—all hardy as the Docks by the frozen brooks."

A PÆONY BORDER AT LANGPORT, SOMERSET.

And it is in the border that the beauty of such plants is realised. Difficult as it is to maintain a single border full of colour, there is another way of achieving beautiful effects, and that is to devote a border to one season alone. The illustration, taken from "Gardens of Delight," shows a flood of Pæony, and if Pæony, then one may have a border of Starworts, of Delphiniums, or a mixture of plants that flower at certain seasons of the year, without any idea of marrying spring to autumn or summer to winter. Then in this brochure there are hints, with diagram plans, on the planting of a general border and those for certain times of the year, thus in some part of the garden giving a wealth of unsullied flowers.

Messrs. Kelway have achieved much in horticulture. Their beautiful nurseries at Langport—and we write from much experience—are not interesting because of the borders one may see there, such as are shown in the illustration, but from their general features—fields of named and seedling Pæonies, Gladioli, and Pyrethrums, some in the seedling stage, masses of plants that one does not know the beauty they are going to bring forth, and their Sweet Peas, hardy flowers, indoor flowers, fruits, vegetables, and every phase of horticulture realised. It is a wonderful nursery, the birthplace of many lovely flowers that we cherish in our gardens, knowing nothing, perhaps, whence they came, and also of the more prosaic esculent. Just now the bulbous Irises are in beauty, the large form of the Netted Iris in particular, which thrives at Langport with unusual vigour. When writing of this famous home of flowers, one is reminded of the words of the Hon. Evelyn Cecil in her book, "A History of Gardening in England," the third edition of which has been recently published. "All that is being done to stimulate a taste for the beautiful in Nature and to foster an appreciation of flowers cannot fail to have an effect on the gardens of the twentieth century. No one can safely prophesy, but there seems every indication that the marked revival of horticulture in all its branches with which the century opened is likely to be a lasting one. With all the improved methods of scientific gardening and all the assistance that painting, literature, botany and chemistry are giving to the art, there should be a brilliant future for the English garden. What results further developments may lead to it would be vain to try and foretell, but it is certain that if the modern gardener makes full use of opportunities and the advantages afforded by art and science, the gardens of the twentieth century may far outshine anything that has yet been seen in England."

BOOKS.

The Culture of Vegetables and Flowers from Seeds and Roots.* — This excellent work must now be well known throughout the United Kingdom, and it speaks well for its contents that this is the fourteenth edition. For this edition a handsome red binding with gold lettering has been selected in place of the now familiar green, and the paper used, though thicker than in the older editions, is lighter, and this we think is a decided improvement. For the benefit of those who do not already know this book, we may mention that it deals thoroughly with the culture of practically all kinds of vegetables and flowers from seeds and roots. These are placed in their respective sections, and each section is arranged alphabetically, so that there is no difficulty in finding any subject about which information is required. Then, again, we find considerable space devoted to "A Year's Work in the Vegetable Garden" and "Flowers All the Year Round." Here we get full and reliable reminders of work that ought to be done in the vegetable and flower gardens in each month of the year, a feature that should prove particularly useful to the busy gardener. Another section is devoted to the culture of flowering bulbs, both indoor and outdoor

* "The Culture of Vegetables and Flowers from Seeds and Roots," by Messrs. Sutton and Sons, Reading; price 5s. net. Messrs. Sutton and Sons, Reading; or Messrs. Simpkin, Marshall, Hamilton, Kent and Co., Limited, 32 Paternoster Row, London, E.C.

kinds being fully dealt with. The chapters on "The Rotation of Crops in the Vegetable Garden" and "The Chemistry of Garden Crops" should be carefully read and mentally digested by all who desire to get the very best results from their gardens. These chapters—indeed, the whole book—are written in a simple and practical manner so that they can be easily understood. Many gardeners have considerable trouble with their lawns, and Messrs. Sutton have wisely devoted a portion of this book to the treatment of them, dealing more particularly with the forming of these from seed. Last, but by no means least, in this volume comes a section dealing with the pests of garden plants. It is safe to say that there is not a gardener who has not, at some time or other in his or her career, had some trouble with insect or fungoid pests or both, and with this book at hand they would be able to combat the pest in a practical and up-to-date manner. The principal insect and fungoid pests of garden plants are fully dealt with, and the excellent line illustrations considerably increase the value of this work. When we consider the low price of this book, it seems incredible that there is a gardener in the kingdom without a copy.

THE KITCHEN GARDEN.

HOW TO GROW SPINACH.

THOUGH it is possible to have Spinach every day throughout the year, it is not always easy to do this; but it may be regarded as always in season, and is generally much appreciated. No pains should be spared, therefore, as far as possible to maintain a regular supply.

PREPARATION OF THE GROUND.

Almost any kind of soil, providing it is properly managed, well drained, deeply worked and well manured, will grow Spinach to perfection. As far as possible this should be done during the winter or spring months, and get the earliest sowing in during the present month, selecting a southern site for it. Sow the seed in drills from 12 inches to 15 inches apart, make the soil moderately firm, and apply a good dressing of soot or wood-ashes. The surface should be finely and neatly raked down. After this sowing Spinach may be successfully grown between rows of Peas or Runner Beans, providing these are placed a good distance apart, and a small quantity of seed should be sown about once a fortnight throughout the summer. It is frequently difficult to procure during the end of July, August and early September, especially during long spells of drought, and it is an excellent plan at this season of the year to make small sowings either on a north or east border, or, failing this, the shadiest part of the garden should be selected. For winter and early spring use no hard-and-fast rule can be laid down as to the date when the seed should be sown. Much depends on the locality, nature of the soil and season, but I strongly advise making several sowings from the middle of August to the middle of October. The latter sowing frequently comes through the winter much better than those got in at an earlier date, especially when a site on a south border is selected. Where plenty of cold frames are at command, sow seed in these about the last week in October and about 9 inches from the glass. In case of a failure out of doors, or a continuation of severe weather, it is surprising what a large amount may be gathered from so small a space, and the same may be said of early spring sowing in frames on a very mild hot-bed of leaves.

VARIETIES.

It is difficult to understand why the prickly variety is recommended for autumn sowing and the round-seeded for summer use, as I have always found the last-mentioned to be quite as hardy and much better. Victoria and The Carter are particularly good varieties, very prolific and of fine quality, but each of these requires to be thinned much more severely than the ordinary kinds. The New Zealand Spinach is quite a distinct species, but invaluable as a substitute during very hot weather, as the greater the heat the better this plant will succeed. It may either be raised in boxes under glass and planted out about the end of May, or sown in shallow drills from the middle to the end of April on heavily manured land and a south border if possible. As it is of rampant and spreading growth, plenty of room must be allowed it, 3 feet between the rows being none too much, and thin the plants to about 24 inches. The Perpetual Spinach is extremely hardy, and though not so good in flavour as the ordinary sort, is extremely valuable owing to its hardiness during winter and early spring. This should be sown in a sheltered position, when frequently during mild winters it will give an abundant supply. E. BECKETT.

Aldenham House Gardens, Elstree.

TOMATO CARTER'S SUNRISE.

PERHAPS it may interest your readers to know that I have been gathering fruits from this Tomato all the winter and spring, and have quantities now. These will last till we get a new supply of the same variety, and this will not be long. I consider this is the best all-round Tomato for home consumption, being rich in colour and flavour, a good cropper and free from disease. The fruits should not be gathered until they are ripe, when they are of excellent flavour. Tomatoes that are gathered before they are ripe and ripened in boxes off the plant are not so rich in flavour or even of such a good colour. The plants from which fruits have been gathered recently were raised in August and grown sturdily until October, when they were placed on a stage in pots and grown on the roof of a house facing south. We have not been without fruits all the winter. I would not recommend it for exhibition, as the fruits are scarcely large enough unless thinned very considerably. The roots have been fed with Clay's Fertilizer and Le Fruitier alternately. The variety Duke of York makes a fine succession to Sunrise, and is a valuable variety for exhibition. Tomatoes do not need so much root-room as is generally given. They rarely, if ever, get diseased if the root-space is restricted and they are not grown too close together; at least, that is my experience extending over many years. W. A. COOK.

THE EDITOR'S TABLE.

PRIMULA OBCONICA FROM BERKHAMSTED.

Mr. W. Lambert, The Gardens, New Lodge, Berkhamsted, Herts, sends us flowers of a good strain of Primula obconica. These were large, of good colour, and evidently the result of careful cultivation. Mr. Lambert writes: "I am sending you some blooms of Primula obconica gigantea, from seed sown in February, 1909. The plants have been in bloom since October, and have been much admired."

VIOLETS PRINCESSE DE SUMONTE AND LA FRANCE FROM BASINGSTOKE.

Mr. W. P. Stark, Hillstead, Basingstoke, sends us some very fine flowers of the two Violets named above. Princesse de Sumonte is a rather small white flower, very prettily streaked with sky blue, and is slightly fragrant. It is a variety seldom met with, and we trust some of our readers will kindly send the information asked for by Mr. Stark, who writes: "I send you for your table some Princesse de Sumonte Violets, which are very good this year. Could you or any of your readers say where this variety originated and when it was introduced? In another box I send you some blooms of La France."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Training Wistaria against wooden pillar (*E. J. B.*).—The best way to secure your Wistaria to the wooden pillar, as you do not wish to nail it directly to the pillar, will be to place several rings of strong wire round it, to which the branches may be tied. Allow a few branches only to ascend the pillar, and on these keep all the side shoots spurred back to within a few buds of the base. This will result eventually in short, spurry growths, from which flowers will be borne in profusion. Your principal aim should be a stunted effect, for flowers are always borne more freely from short, stout, stunted branches than from long, rampant shoots, while infinitely less trouble is given to keep the plant within bounds. If you find that the lower buds do not break away well in the first place, head the plants back somewhat.

Germination of Aquilegia seeds (*Columbine*).—Seeds of Aquilegias are irregular in their germination, and many of those sown in spring will remain until the following spring before germinating. You may still have some seedlings coming in the spring of 1911 from the seeds you sowed last autumn. There is thus nothing abnormal in the manner in which yours are coming.

Calceolaria and Mertensia (*P., Wilts*).—Both species succeed in a mixture of peat, loam and sand of about equal proportions and free, or nearly so, of manure. The Calceolaria will be best in a sheltered position either in the rock garden or a similarly elevated spot, though even here it is doubtful whether it will prove to be reliably hardy or enduring. The Mertensia, like all its tribe, will be best suited in a position uniformly cool and moist, but well drained.

FRUIT GARDEN.

Vines unsatisfactory (*J. G.*).—The Vines are not strong enough to bear good crops of fruit. They have probably been over-cropped in past years. Judging from the specimen shoot you have sent, last year's shoots were very weakly, and perhaps they were left too numerous on the Vines, disbudding not being done severely enough. The roots of the Vines are evidently not very active nor numerous. Do not allow any bunches to mature this year—if any form—and put on a good surface mulch of fibrous loam and bone-meal. The loam must be 3 inches deep, and to each bushel add 4oz. of bone-meal. Give the Vines as much air as you can during the summer and autumn.

Red spider on Peach trees in bloom (*James F.*).—The position is a critical and an awkward one, because by taking strong enough measures to kill the spider the blossom and subsequent crop would be in danger. We think that the safest and best way to get rid of the enemy will be by applying a nicotine solution as follows: To a pint of clear water add a wineglassful of Tobacco juice and half a wineglassful of soft soap, mixing well together and applying with a camel-hair pencil or small soft brush to every leaf-bud as growth develops, and to other parts of the tree where the enemy is suspected of hiding. The blossom, of course, must not be touched with the mixture. To apply this is a tedious operation we know, but it would not take long, and should prove fatal to all the spiders it came in contact with and would not hurt the foliage. Should one application not prove fatal, another should be given in the course of twenty-four hours. As soon as the fruit is set, syringe your trees copiously every day with clear water; and should you find that the enemy is still alive, add a little Tobacco

juice to the water occasionally when syringing, but not in sufficient quantity to stain the fruit or foliage.

MISCELLANEOUS.

Samples of manures (*N. Wear*).—The manures are as follows: 1, Sulphate of potash; 2, superphosphate of lime; 3, apparently a mixture, contains phosphate, sulphate and chloride of potash; 4, basic slag; 5, kainit. They have apparently suffered nothing from having been kept. None of them will lose anything if kept dry.

Disbudding Geraniums (*Enquirer*).—You may safely rub off any of the weak, badly placed shoots on your old plants of Geraniums, and by so doing will obtain more shapely specimens than would otherwise be the case. We have never heard any complaint of the firm concerning which you enquire, and have every reason to believe that it may be relied upon to give satisfaction.

Larvæ (*W. F. F.*).—The blackish brown grubs sent are among the most useful of those found in the soil. They are the larvæ of one of the ground beetles, and most of these feed during their life both as larvæ and as perfect beetles. You may take it that any insect that has large jaws, as these have, and is active in its movements, having well-developed legs, feeds upon living animals, which it generally hunts.

White worms (*Miss H.*).—The creatures sent are white worms and nearly related to the earthworms. They feed upon decaying vegetable matter for the most part, and attack roots of seedlings, &c., also when they are in great numbers. The soil may be used if needed for potting so long as it is previously heated to a temperature of about 140° Fahr. for a few minutes over the furnace fire, or in an oven, or by placing hot bricks in the heap, or by some similar means.

Narcissus Tazetta variety (*J. K. Milne Home*).—The bulb had become a victim to basal decay apparently soon after planting, but from what particular cause we are now unable to determine. Usually, however, this disease is the outcome of imperfectly matured bulbs, and occasional examples are found in the bulk while the bulbs are in the dry state. You are unfortunate in having several of them, but last year was not good for ripening these things.

Names of plants.—*A. K.*—A form of Nephrolepis Piersonii —*E. S. Martin.*—Escallonia macrantha.—*A. B.*—The Mezereon (Daphne Mezereum).

SOCIETIES.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE annual general meeting of this society was held in the Royal Horticultural Hall, Vincent Square, Westminster, on the 14th ult., Mr. C. H. Curtis presiding over a small attendance. The report and balance-sheet were presented. The net increase in membership during the past year was thirty-four, the total number of members now being 1,325. The amount paid out to nominees of deceased members was £300 10s. 11d., this including £30 4s. 1d. paid to the nominee of a lapsed member. The committee regret that more members do not take advantage of the Convalescent Fund. Members often return to business before fully recovered, and sometimes have to come again on the Sick Fund, whereas a brief holiday and change of air would fully restore them. The subscriptions to the Convalescent Fund amounted to £10 2s., this including a donation of £5 5s. from Mr. N. N. Sherwood, V.M.H.

The question of providing for a grant to any member who may have the misfortune to lose his wife by death has been considered by the committee; but as there are many points of far-reaching importance involved in any such new departure on the part of the society, the committee proposes to take actuarial advice before putting any proposals before the members, and to take such advice in connection with the forthcoming quinquennial valuation of the society.

The many benefits attaching to membership of the society are well known to the members themselves, although not all of them, as already pointed out, are taken full advantage of. But if the society is soon to hold that large place in the horticultural world it is meant to fill, then there must be greater effort on the part of private members. In return for a payment of 9d. per week a member receives 18s. per week for six months if continuously ill for that period, and 9s. per week for a further six months if still ill (12s. and 6s. respectively if the subscription is 6d. per week). In cases of chronic sickness 6s. and 4s. per week respectively is granted, and, should a member be unable to follow his employment after attaining the age of seventy years, he receives a sum varying, according to circumstances, from 5s. to 8s. per week. After reaching sixty years of age a member may withdraw a sum equal to double the amount of the interest on his deposit account, in any one year, and thus, in times of stress, be able, in many cases, to pay his contributions to the society from the amount standing to his personal account in the books of the society.

During the year four children of deceased members have been elected to the benefits of the Royal Gardeners' Orphan Fund, and the committee therefore commends this excellent charity to the society. A subscription of 5s. per annum entitles a subscriber to one vote at each election, and if a large number were to subscribe, the election of children of deceased members to the benefit of the fund would be practically assured.

The chairman moved the adoption of the report, and, in doing so, reviewed the financial position of the society. Mr. Burge seconded the motion. Mr. Mark Webster said he hoped the members would do all they could to bring the advantages of the society before the members of horticultural societies. Mr. J. Harrison Dick moved a recommendation to the committee to consider the advisability of forming an advertising sub-committee, whose duties would be to arrange for advertising the society among gardeners generally and by various means. The report and balance-sheet were unanimously adopted. The secretary of this excellent benefit society is Mr. W. Collins, 9, Martindale Road, Balham, S.W.

ROYAL HORTICULTURAL SOCIETY.

THERE was an excellent display of all kinds of spring flowers at the fortnightly meeting held at Vincent Square on the 22nd ult. Happily, visitors were not so numerous as they were a fortnight earlier, and the exhibits could be examined in comparative comfort. Notices for the guidance of visitors were displayed, but so far as we could see these were quite ignored.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, Harry J Veitch, H. Little, W. Boxall, F. Sander, R. Thwaites, F. Menteith Ogilvie, Arthur Dye, A. N. A. McBean, J. Charlesworth, J. Cypher, W. H. Hatcher, H. G. Alexander, W. P. Bound, Talbot Clifton, W. H. White, H. A. Tracey, H. Ballantine, Gurney Wilson, J. Wilson Potter, W. Bolton, H. Brooman White, C. H. Curtis and de B. Crawshay.

Messrs. Sander and Sons, St. Albans, had a good-sized group of extra well-flowered plants, these comprising many of more than usual interest, the whole being arranged in a tasteful manner. Maxillaria picta, Odontoglossum crispum varieties, Dendrobium velutinum, Cœlogyne speciosa albens, Cypripedium Imperiale, Houlletia Sanderi (with hooded, cream-coloured flowers), Vanda cærulea and many others added their quota of beauty to this excellent group. Silver Flora medal.

A particularly well-flowered collection of plants also came from Messrs. Charlesworth and Co., Hayward's Heath, these being well set up with Maidenhair Ferns, Odontoglossum ardentissimum, Lælio-Cattleya luminosa, L.-C. Smilax, L.-C. Hypatia, Brasso-Cattleya Mariæ, Odontioda Bohnhofiæ, O. Bradshawiæ (in several shades of colour), Dendrobium nobile varieties, Cymbidium eburneo-lowianum concolor (a beautiful rich cream or almost pale sulphur-coloured variety), Cœlogyne triflorum and Vanda Bensoniæ being a few among many that called for special mention. Silver Flora medal.

The group staged by Messrs. Stuart Low and Co., Bush Hill Park, Enfield, was an excellent one in every respect, and comprised many plants of considerable interest. All were well flowered and in good health. A few that we specially noticed were Pholidota sinensis, Odontoglossum Rossii, Maxillaria sanguinea, Odontoglossum cordatum Low's variety, Bulbophyllum cupreum, Brasso-Lælia Jessoppii, Odontioda keighleyensis, O. Bradshawiæ, Dendrobium jamesianum, Cypripedium niveum and Epidendrum Wallissii Silver Flora medal.

Messrs. J. and A. A. McBean, Cooksbridge, Sussex, had a small group of well-grown plants, consisting principally of choice Odontoglossums and Cattleyas. The Odontoglossums had remarkably long racemes of large flowers, and were evidently of high-class culture. O. Gladys H. W. Cheal is a very handsomely marked variety, the large, brownish crimson dots adding much to the beauty of the flowers. Silver Banksian medal.

Mr. M. Mertens, Mont St. Amand, Ghent, had a few choice Odontoglossum hybrids and a beautiful white-flowered Cattleya.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, had a nice group of well-grown plants. In the centre were several excellent plants of Cymbidium insigne, and others that called for special mention were Cattleya Trianæ Edgar Knight, Lycaste Skinneri alba and several fine Brasso-Cattleyas. Silver Flora medal.

Mr. A W. Jensen, Lindfield, Hayward's Heath, staged an excellent group of Cattleyas, these consisting of particularly good varieties of C. Schröderæ, C. Trianæ and C. Mendelii. A beautiful cream-coloured variety of Odontoglossum crispum was also noticed in this group. Silver Banksian medal.

Sir Jeremiah Colman, Bart., Gatton Park, Reigate, had a small but interesting collection of choice plants, Megaclinum falcata, Pleione yunnanense, Dendrobium serratifolium, Dia-Cattleya Colmanii and Odontoglossum thompsonianum Gatton Park variety being a few of the most interesting.

Messrs. J. Cypher and Sons, Cheltenham, had a small group of well-grown Dendrobiums, these comprising such as D. Melpomene, D. Luna, D nobile Heathii, D. rubens magnificum and D. r. grandiflorum.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. J. Cheal, W. Bates, A. Dean, E. Beckett, H. Parr, H. Markham, J. Davis, James Vert, G. Reynolds, Charles Foster, P. C. M. Veitch, G. Wythes, Owen Thomas, H. Somers Rivers, John Lyne, W. Poupart, C. G. A. Nix, A. H. Pearson and G. Hobday.

Messrs. Sutton and Sons, Reading, had a remarkable group of vegetables, considering the time of year. Before giving any details of this group, we would like to point out that all the kinds shown had been grown under the old English system of growing early vegetables, and not under the much-boomed and so-called French system of intensive culture. Indeed, many of the vegetables shown had been grown in the open ground. A new early Cabbage cut from the open is Harbinger. These heads were from seeds sown on August 10 last year. The hearts, though small, were solid and very attractive. Broccoli Sutton's Superb Early White was also shown as cut from the open, the heads being of good size, solid and beautifully white. Pea Sutton's Duchess of York, a true Marrowfat variety of splendid flavour, was shown in grand condition, and this, we think, is the first time Peas have been shown before the society in March. Broccoli, French Beans, Cucumbers, Mushrooms, Mustard and Cress, Radishes, Lettuce Sutton's Golden Ball, Potato Sutton's Seedling, Tomato Sutton's Early Market, Chicory, Seakale and Endive all added to the interest and attractiveness of this remarkable exhibit. Silver-gilt Knightian medal.

Messrs. J. Veitch and Sons, Limited, Chelsea, had a nice exhibit of Kales, Lettuces, Seakale and Radishes, the whole being very attractive. Lettuces Veitch's Heartwell, Early Favourite, Golden Queen, White Passion, Early Paris and French Giant Frame were shown in splendid condition. Among the Kales were Veitch's Variegated and Veitch's New Sprouting, the latter being very prolific. The Seakale, too, was shown in splendid form. Silver Banksian medal.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. E. A. Bowles, James Walker, J. Green, T. W. Turner, G. Reuthe, W. J. Bean, W. Howe, J. Douglas, J. F. McLeod, C. Blick, C. R. Fielder, J. Jennings, W. Bain, C. Dixon, H. J. Cutbush, R. W. Wallace, W. Cuthbertson, Charles Shea, F. Page-Roberts, W. P. Thomson, E. H. Jenkins, W. J. James, G. Paul, J. Hudson, J. W. Barr, E. Mawley, A. Turner, H. J. Jones and W. R. Cranfield.

A series of notable exhibits from Messrs. James Veitch and Sons, Limited, Chelsea, included a full-length table of Primula obconica, a splendid strain embracing pure white, pink, pale blue, rose, carmine and other shades intermediate between these. The whole of the plants were profusely flowered, while in the matter of size the flowers were of the finest description. Another table occupied by Messrs. Veitch was filled chiefly with the firm's unique strains of Amaryllis (Hippeastrum), of which there were selfs and striped or fancy varieties in considerable numbers. Remembering that these are the product of seeds, it but shows the value of selected strains of these plants quite apart from their decorative value. A few named sorts included Virginalis, white; Lela, scarlet; Mold, crimson scarlet with salmon pink edges; and Dante, a white pink-chequered flower of great beauty. Boronia megastigma, Citrus in flower and fruit, Camellia reticulata, Streptosolen Jamesonii, and a new Primula, with reflexed blossoms of a brick red tone on slender pedicels, were also shown. Messrs. Veitch also had a magnificent group of forced shrubs, arranging them with excellent taste and judgment. Among the more imposing features were Wistaria sinensis alba, Andromeda speciosa cassinæfolia (with drooping pure white bells), Viburnum plicatum in splendid condition, Veronica hulkeana, Clematis montana rubra and Vitis henryana. Gold medal.

Messrs. Sutton and Sons, Reading, displayed a very fine table of bedding Tulips in distinctive colours, arranging these in semi-circular fashion. Among the more prominent were Orange Blossom, yellow and cream; American Lac, salmon rose with bronze; Montresor, golden; Couleur Cardinal, very fine; Pottebakker, white; La Remarquable, dark crimson, white edged; Vermilion Brilliant, the brightest of all scarlets; Queen of Whites, and others, the whole making an effective as well as an instructive group. Silver Flora medal.

Messrs. James Carter and Co., High Holborn, displayed a rockery arrangement with a dripping pool, the whole being well conceived and prettily planted with spring bulbous and other flowering plants. Silver Flora medal.

Messrs. Jarman and Co., Chard, had a small exhibit of Cactus Cinerarias in many shades of colour.

Mr. H. Burnett, Guernsey, had a capital exhibit of Carnations, which included Marmion, May Day, Fortuna (yellow), R. H. Felton (fine pink), Mikado, Pluto (fine crimson) and others. Silver Flora medal.

Messrs. W. Cutbush and Sons, Highgate, displayed a fine lot of the Perpetual-flowering Carnations, splendidly arranged in large imposing groups. Among the more prominent were Marmion, St. Louis (fine scarlet), Mrs. Burnett, Superior (a new variety of deep pink shade), Aurora, Beacon (one of the best scarlets), The President (crimson) and others. Some fine seedlings were also staged. Messrs. Cutbush also displayed a splendid group of early flowering hardy plants, such as Tulipa kaufmanniana, Iris reticulata, I. persica, Primula rosea, Hepaticas (in white, red, pink and blue), Tulipa Greigii, Stylophorum diphyllum, single and double Primroses and other plants. Of the shrubs, of which the background was composed, Rhododendron Smithii aureum, Azalea sinensis, Rhodora canadensis, and the early hardy Heaths were noticeable. Silver-gilt Flora medal.

Messrs. H. B. May and Sons, Edmonton, had a showy table of Clematis, of which Nellie Moser, Miss Bateman, Lady Londesborough, Mrs. Quilter and others were noted. Ferns and Pelargonium Clorinda also contributed to a good display. Silver Flora medal.

Messrs. Cartwright and Goodwin, Kidderminster, brought a very fine lot of Narcissi, of which Circlet, Rising Sun, Weardale Perfection, Victoria, Lady Margaret Boscawen, Golden Phœnix, Southern Star, Glory of Noordwijk (a fine bicolor), King Alfred, Ariadne, Orangeman, Plenipo and Admiral Makaroff (fine yellow self) were the best. This was a beautiful group, and deservedly came in for a great deal of attention. It fully deserved the silver-gilt Banksian medal that was awarded.

Messrs. J. Cheal and Sons, Crawley, had a rock garden of considerable interest, some choice shrubs, such as Enkianthus campanulatus, Heaths and other things being noted.

Messrs. J. Peed and Sons, West Norwood, had a display of Lachenalias and alpines in pots.

THE GARDEN.

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CONTENTS.

PRESENT-DAY FLOWER EXHIBITIONS 173
The use of green paint 173
NOTES OF THE WEEK
Forthcoming events 174
CORRESPONDENCE
Good vegetables .. 174
Caterpillars and Roses 175
Fumigating for leaf-mining grub 175
Disease in goldfish .. 175
GARDENING OF THE WEEK
For the South and South Midlands .. 175
For the North and North Midlands .. 175
ROSE GARDEN
Perpetual-flowering Ramblers as standards 176
Rose Maréchal Niel 176
Filling up gaps in Rose-beds 176
KITCHEN GARDEN
Two neglected spring vegetables 177
FLOWER GARDEN
The fascination of the Crocus 177
FLOWER GARDEN
The alpine house in spring 177
Sweet Pea chat .. 178
COLOURED PLATE
Primula obconica .. 179
FRUIT GARDEN
The Myrobalan or Cherry Plum 179
Gooseberries and Currants as cordons .. 179
GARDENING FOR BEGINNERS
Garden work week by week 180
The art of making seed-drills 180
Celery trenches .. 180
An interesting Chestnut shoot 181
Violet La France .. 181
THE TOWN GARDEN .. 181
New plants 182
BOOKS 182
ANSWERS TO CORRESPONDENTS
Flower garden 183
Fruit garden 184
Miscellaneous 184
SOCIETIES 184

ILLUSTRATIONS.

Crocus lævigatus var. Fontenayi 176
A rock garden at an exhibition 177
The Alpine House at Kew 178
Primula obconica .. .. Coloured plate
A view of the Jubilee Show at Haarlem 179
The art of making seed-drills 180
A Chestnut shoot that has been sprouted in water .. 181
A bowl of Violets La France 181

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

PRESENT-DAY FLOWER EXHIBITIONS.

ONLY a few years ago ardent flower-lovers thought the exhibitions were tame, conveying nothing instructive; but surely this opinion has altered. A flower exhibition to-day is an exhibition of rare plants, and even the more familiar flowers are grouped in a way to suggest possible effects in the garden. The exhibition has, therefore, become an instructive flower agent, and one need only glance at the illustration on page 177 of the group exhibited by Messrs. R. W. Wallace and Co. of Colchester to show our meaning. There is represented a rock garden in an exhibition hall, and we draw attention to it because such exhibits deepen one's interest in flower shows.

Many beautiful groups are exhibited at the fortnightly meetings of the Royal Horticultural Society, and it must be a pleasure to every true lover of the garden to see plants shown in the most natural ways. The magnificent groups at the shows in the grounds of Holland Park are pleasant reminiscences, and it seems that each year there is a determined effort to outshine previous displays. The groups at the Temple Shows are generally painfully stereotyped—one year much like the previous one; this, however, is due not to any want of artistic skill on the part of the exhibitor, but arises simply from want of space.

THE USE OF GREEN PAINT.

WE have received a letter from an "Old Reader" in which the use of green paint is strongly condemned. On a previous occasion we drew attention to this important subject. It is generally the rule that articles that have to be painted in gardens are painted what is simply called green, and are, in consequence, unsightly. Green paint, to the ordinary workman, means a hard, bright, crude colour, the harder and brighter the better. Such a colour is not only unpleasant in its own vulgar garishness, but is painfully unbecoming to any foliage that is brought near it. It may have a certain smartness on the body of a railway engine in connection with bright brass or ironwork, and possibly the brightest green paint may please East End trippers on the seats and appurtenances of their holiday resorts, but it cannot fail to be offensive to people who have the least refinement of taste, and it must be of harmful colour effect in close connection with vegetation.

Even in the best places nothing is more frequent than to see the tubs containing magnificently grown Oranges, Oleanders, Palms and other fine plants for terrace decoration disfigured by the worst possible hard green colour, the crudity of the green being made all the more painful and conspicuous by the hoops being painted black; and then perhaps the whole thing is varnished into a kind of aggressive vulgarity of smartness.

We venture to speak most strongly on this matter of green paint, and even to say that green paint of this class should never come into a garden at all. But we do not condemn it without offering a useful solution to the paint problem. We well know that the frequent painting of tubs, garden seats and other appliances is necessary, and that the careful gardener takes a just pride in seeing that it is not neglected. It is only a question of choice of colour. If, instead of the Brunswick greens or other bright greens of the oilman's stock, a better choice were made, it would be immensely for the good of the garden landscape. A whole range of beautiful greens is made with chrome yellow No. 1 or pale chrome and black. Anyone who has not seen these two colours mixed up on the paint stone would hardly believe how good a green they make. It is amply bright enough for any garden use, it keeps its colour better than the other, it gives the articles painted a look of refinement instead of vulgarity, and it accords most pleasantly with all foliage. Let any gardener who mixes his own paints try a mixture of paints "ground in oil" of one part black, two parts light chrome and four parts white lead, suitably thinned, and he will have a very good colour for all garden work. As for tubs, they look much better painted the same all over. Why the custom of painting ironwork black became established it would be hard to say.

In France and Italy the tubs are nearly always of a pleasant, quiet colour; even when at their brightest the colour, instead of being crude and harsh, as in England, has an element of refinement, approaching the colour called malachite green in paints, which is very far away from the much brighter colour of the mineral substance malachite, and more like a low-toned or washed-out turquoise; but this class of colour, though quite admissible in extremely dressed work at home, is more suited to sunnier lands.

It is always wise to think of such matters as this in the garden. An aggressive paint is an abomination, destroying the effect of the flowers themselves. In the case of such colours, everything should be subservient to the flower shades, which should be the first consideration. At this season of the year, when it is the wish of many to refurbish the garden furniture, if one may use such a term, perhaps the hints given may be useful.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 9.—Seascale and Lake District Horticultural Society's Spring Show.

April 13.—Royal Caledonian Horticultural Society's Spring Show, Waverley Market, Edinburgh (two days). Cornwall Daffodil Society's Show at Truro (two days).

April 14.—Kingsbridge Daffodil and Spring Flower Show.

Royal Horticultural Society's Garden Club.—The annual meeting will be held at Wisley on June 11 (Saturday afternoon).

Scottish Pansy Society.—An appeal for increased support for this society has been issued over the name of the secretary, Mr. W. Penman, an additional reason for the appeal being that Sweet Peas are to be added to the exhibition, which is to be held in the Free Gardeners' Institute, Picardy Place, Edinburgh, on August 13. Some subscriptions have already been received, but the work of the society requires increased aid, not only in subscriptions, but also in the way of new members. The Scottish Pansy Society has done such good work in the past, and has shown itself so deserving of support, that a ready response to the secretary's appeal should be forthcoming.

Inoculation of garden crops.—The Journal of the Royal Horticultural Society for March contains an interesting account by Mr. F. J. Chittenden, F.L.S., of trials made during 1909 with Nitro-Bacterine. During 1908 trials were made with Peas, and last year French Beans were used for the purpose. Evidently the trials were properly and thoroughly conducted under the personal supervision of Mr. Chittenden. The results proved that no benefit was derived from inoculation with Nitro-Bacterine, the crops from inoculated plants being practically the same as those from the plants which had not been so treated. Where a slight difference did occur, the crops from the inoculated plants were smallest, but this was attributed to the natural condition of the soil. Apparently there is much yet to be done before Nitro-Bacterine can be regarded as of real practical value.

Proposed memorial to the late Mr. David Thomson.—A very general feeling has been expressed among the many friends of the late Mr. David Thomson that a memorial should be established to perpetuate the name of one of the greatest of British gardeners. It is suggested that the memorial take the form of a fund from which to grant pensions to aged and infirm gardeners or their widows, such pensioners to be always known as "The David Thomson Memorial Pensioners," the fund to be administered by the committee of the Gardeners' Royal Benevolent Institution, of which Mr. Thomson was for so many years a very warm friend and to which he subscribed so liberally. When it is remembered how much Mr. Thomson did during a long and strenuous life for the advancement of every branch of gardening, what a noble example he always set by his uprightness of character, his great courtesy, his unostentatious character, and his readiness always to impart to others any information which could benefit them in any way, it is felt that such a proposal as that now suggested is not only due to his memory, but will be most cordially welcomed by every lover of gardening. Mr. Thomson's great abilities were recognised during his lifetime by many honours, among which were his having been one of the original recipients from the Royal Horticultural Society of the Victoria Medal of Honour, and also by his having been awarded the Neill Prize by the Royal Caledonian Horticultural Society. His many friends are very desirous that the memory of so good a man—one of the very foremost gardeners of his generation—should now be perpetuated as being not only his due, but also as an incitement for future generations of gardeners to follow so noble an example. The undersigned will thankfully receive contributions from any who desire to further so good an object: Harry J. Veitch, V.M.H., Treasurer of the Gardeners' Royal Benevolent Institution, Royal Exotic Nursery, Chelsea, S.W.; James Whytock, President of the Scottish Horticultural Association, The Gardens, Dalkeith Palace, N.B.; J. W. McHattie, Vice-president of the Royal Caledonian Horticultural Society, Public Parks Office (City Chambers), Edinburgh; George Monro, V.M.H., Covent Garden Market, London, W.C.; J. H. Goodacre, V.M.H., The Gardens, Elvaston Castle, Derby; and W. Henderson, The Gardens, Balbirnie, Markinch, N.B. [We hope this fund will be liberally supported in memory of a great British gardener.—ED.]

Presentation to a Dundee nurseryman.—The other evening a number of friends met Mr. J. W. Laird, of the firm of Messrs. W. P. Laird and Sinclair, Dundee, in Wood's Rooms, Dundee, to honour Mr. Laird on the approach of his departure for America, where he purposes settling in Virginia. The company was presided over by Mr. W. S. Melville, President of the Dundee Horticultural and Chrysanthemum Societies, and there was a large attendance of representative horticulturists. The toast of the evening, "Our Guest, Mrs. Laird and Family," was proposed in able terms by the chairman, and Mr. Laird made a feeling reply. Mr. W. Grant, on behalf of the subscribers, made a presentation to Mr. Laird, this consisting of a gold watch and chain and a purse of sovereigns; while Mr. D. Storrie presented Mrs. Laird with a gold watch. Mr. Laird made a suitable reply, in which he warmly thanked his friends for this token of their good wishes.

The valuation of Scottish public parks.—An important question, affecting the ever-increasing number of public parks in Scotland, came before the Scottish Law Courts recently, and a far-reaching decision has been given upon the questions raised, this, however, only bringing Scottish practice into line with a previous decision of the English Courts. It arose from actions by the Edinburgh and Govan Parish Councils to upset the nominal values put upon public parks in Edinburgh and Govan, and upheld by the local valuation committees. The effect of the decision is that the nominal values are retained, the main point of the judgment appearing to be the fact that the parks cannot be used for ordinary purposes, but subject to their use by the public. The decision is of great importance, and will considerably affect the park charges in several of the Scottish cities and burghs.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Narcissus Henry Irving.—One is not surprised to read in the deeply interesting notes on "Daffodils and Tulips at Vincent Square" in your issue of March 19 the remark by the Rev. Joseph Jacob that some people refused to credit the correctness of the label of this variety, "thinking it must be some fine new variety." When really well grown it is difficult to surpass Henry Irving, and its value as a variety for forcing is becoming more and more recognised by growers of Daffodils for early cut flowers. I know of one market grower who depends largely upon this fine variety, and by its use he secures a better price than he would otherwise obtain.

Crocus Sieberi versicolor.—Crocus lovers are indebted to Mr. Bowles for the charming weekly articles on the Crocus we are having just now. Will you permit one who has for many years been under the fascination of the Crocus to remark upon the great beauty of C. Sieberi versicolor, spoken of by Mr. Bowles on page 142. I had a lovely one some years ago, but the disaster caused by removing from my old to my present garden resulted in its loss in some way or other, and I have never been able to replace it. It was remarkably handsome with its flowers of white, purple red and yellow, and the sooner for the peace of mind of those who have known such a flower that Crete becomes settled enough to permit of plant-collecting the better, so that we may have plenty of these Cretan forms in our gardens.—S. ARNOTT.

Iris stylosa failing to flower.—In reference to the note on page 110, I think the conclusion arrived at, viz., that the plants did not have the baking required to ripen them, is in the main correct. However, there may be other influences which bear materially on this matter. The most floriferous plants of Iris stylosa or unguicularis that I have seen were planted in a loamy soil at the base of a south wall. Some plants on a west border, which were under the writer's observation for several years, produced only a few flowers. These were not planted at the foot of the wall, but 3 feet or more from the same and in the rich soil of an old kitchen garden. In another instance the plants were growing at the foot of a south wall, on which was trained a standard Pear tree, and the plants produced few flowers. The Pear tree was of considerable age, the spurs being 1 foot or more in length. Did the foliage of this tree afford too much shade, or was the drip after rain detrimental to the Iris?—COLIN RUSE.

Alpine flowers under glass.—Will you allow me, as a lover of alpines, to protest against the idea enunciated in your issue of March 26, that a house is at all necessary or desirable wherewith to grow these lovely plants to perfection. You tell us to go to Kew to see what may be done, and you remark that the Alpine House is off the beaten track, unfortunately. Some people that I know would like to see it still further removed. "We write of it now," you say, "to bring forward to those who cannot afford expensive glass houses or elaborate gardens." Elaborate Rubbish! This question appears to me somewhat "like throwing water on a drowned mouse." Mention is made of Mr. Bowles' excellent articles on the Croci; but I have not seen him anywhere remark that they were best grown under glass, even admitting that they could be termed alpines at all. You mention a lot of plants that are grown in the Alpine House at Kew, but the alpines are conspicuous by their absence. Only two are mentioned, viz., Saxifrages and Sedums, but of what species is not reported. I hope when you illustrate, as promised, the Alpine House at Kew and some of the individual plants, you will, at the same time, indicate which alpines thrive best under glass, and also give some details as to their cost of management.—A LOVER OF ALPINES.

Good vegetables.—The notes on "Some Good Vegetables to Sow Now," by "H.," page 118, March 5, are timely and valuable. A year's experience or more of the kinds and varieties named is given to readers of THE GARDEN, and those who are inexperienced in the matter of vegetable culture have good and reliable data to go by. Having cultivated some of the varieties recommended by "H.," I can fully endorse all that is advanced in their favour. Perhaps Cauliflowers are the most difficult of all ordinary vegetables to grow where a light sandy soil obtains; and even in good, deep loam, well enriched with rotted manure, the skill of the cultivator is well taxed to grow nice compact, clean heads or flowers during a dry summer. I well remember a very trying season for Cauliflowers a few years ago. I had several varieties growing from which some good exhibition specimens were required, and out of all of them Sutton's Magnum Bonum was the best. While others were good, the flowers opened a little too prematurely, while at the same stage

Magnum Bonum remained firm and close despite the scorching sun's rays. For late use Veitch's Autumn Giant is a truly grand variety, and I would like to recommend Eclipse for use just before the Autumn Giant comes in and also as a companion to it.—B.

Caterpillars and Roses.—In your interesting book on "Rose Growing Made Easy" you state, on page 31, eighth line from the top, "Caterpillars are a terrible plague, and hand-picking is the best and, in fact, the only remedy." Abol White's Superior Insecticide is a certain remedy. It should be used at the rate of two measures in one gallon of water (measure supplied with each tin) and wash once in ten days. Mildew, aphis and red spider are also destroyed by this preparation, and the foliage will have a beautiful healthy colour. Abol is not poisonous. —E. A.

Fumigating for leaf-mining grub.—In reply to Edward F. Kemp, Clapton, whose letter appeared on page 150, I would like to confirm what I have previously written in my new book, lectured, written to individuals and told no end of people privately, that smoking the plants (or houses) with Auto-Shreds on two separate occasions a week apart will thoroughly and effectually exterminate the leaf-miner, both fly and maggot. It was when smoking for green fly that we found the leaf-miner had been killed also, and most of the maggots in the leaves had been killed as well as the flies. By giving the second fumigation the following week we thoroughly exterminated them. Anyone is welcome to come and see our plants, which number hundreds of thousands at the present time, and no maggots will be found in any except those which have been recently sent us from other places. The smoke must penetrate to the maggot in most instances, but at which stage I cannot say. Two fumigations clear them off completely. Were I not sure of what I am writing, and of what I have written in my book on Chrysanthemums, I would never have signed my name to this note. I will leave others to ponder over how the maggots are affected. For me it is a blessing to know they may be, they can be, and they are destroyed by fumigating with Auto-Shreds. I have no fear or favour, and no financial interest in writing this note. I have too much respect for my name to mislead anyone.—W. WELLS, *Merstham, Surrey.*

Disease in goldfish.—In a recent issue you state that you are unable to help a correspondent with respect to diseased goldfish. I, of course, do not know what these fish are suffering from, as no details are given; but assuming that the trouble is fungoid growth on the fins and body, perhaps the following suggestions may be of interest. I have had a pair of fish (about 7 inches long) for over three years, and have at times had to give them attention, each time with the greatest success. My treatment is to catch them carefully and hold them lightly but firmly in my hand, and then smother the upper side of the fish with powdered sulphur (flowers of sulphur) and gently but firmly rub it on to the fins and scales in the direction of head to tail. Of course, this must be done quickly, as it is not good for the fish to remain out of water in a warm hand for more than a few seconds at a time. One side having been attended to, the fish is returned to the water for a few minutes, recaptured and the process repeated on the other side. The effect of the sulphur is to make the fungus come off in a coat of slime, and any sore patches soon heal. A teaspoonful of sulphur thrown on to the surface of the water always attracts my fish, and they swallow it with enjoyment; if only a small attack of fungus shows itself, this treatment at times is sufficient. The great thing to do when doctoring the fish is to keep calm; the fish then do not move about so much. If nervous, it would be best to catch them in a small net and apply the sulphur from a flour-dredger, but I think the handling rubs it in.—L. R. CRADDOCK.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

SUMMER-FLOWERING CHRYSANTHEMUMS.—These may now be planted out in their flowering quarters. They are very effective either in beds or borders. Some should be planted in the reserve garden for lifting later on to fill up blanks that occur in the herbaceous borders. When Delphiniums, Pæonies and various other earlier-flowering plants have finished, these Chrysanthemums will be found useful for giving a late summer display. Finish the planting of Sweet Williams, Violas, Pansies, Canterbury Bells and Carnations.

Polyanthus.—Seed should now be sown to obtain good flowering plants for next season. It can be sown in shallow boxes and placed in a cold frame. Keep a piece of glass over the box and cover with paper; this prevents undue evaporation until germination occurs. Spring bedding is now looking bright, and all decayed leaves must be cleared off to keep the beds tidy in appearance.

ROCK GARDEN.

This department is beginning to get more interesting, and various subjects are showing off their beauty. Should there be any length of dry weather, many plants will require water to keep them going. This must not be neglected, or the plants will suffer and their flowering period be considerably shortened if allowed to remain dry for any time. A sharp watch must be kept for slugs. The best plan to adopt is to make a regular inspection with a hand-lantern every evening and pick them off. One soon gets used to their favourite plants, and knows where to look for the slugs.

This is a good time to sow seeds for the raising of a batch of plants for next season. It is quite necessary in our climate to have a good reserve stock in pots to fall back upon to repair all losses. This may be kept up by propagation, either by seeds or cuttings. Campanulas, Dianthus, Silene, Aubrietia, Alyssum, Primula and Papaver, if sown now, will make nice plants for next year.

ROSE GARDEN.

Hybrid Teas, Teas and Chinas should be pruned. The same method of pruning applies (with the exception of Chinas) as advised in an earlier calendar for Hybrid Perpetuals. China Roses do not require such hard pruning. Climbing varieties that were pruned after flowering will need any growths that have been blown away from the supports retied. All beds and borders may be liberally top-dressed as soon as pruning is concluded.

KITCHEN GARDEN.

Celery.—Prepare the trenches for the planting of the earliest crop. If it is intended to grow the Celery in double rows, the trenches must be 2 feet wide and 3 feet between the trenches. If it is to be grown in single rows, the trenches may be 18 inches wide and 2 feet 6 inches apart. Take out the top spit to the depth of the spade and lay it on the space between the rows. Then give the trenches a liberal dressing of rich manure, and fork it in. The ridges may be utilised for growing Lettuces, Spinach or any small, quick-growing crop.

Celeriac.—If not already sown, the seed of this should be got in at once and treated much in the same way as Celery. Transplant the seedlings as soon as large enough to handle, and when ready put them out in trenches. They do not require such deep trenches as Celery. It is an excellent vegetable and deserves to be grown more than it is. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

CHRYSANTHEMUMS. — The bulk of the single-stemmed varieties will now be ready for large pots. If in 3-inch pots, the move should be into the 5½-inch size, while those in 4-inch should be placed in 6-inch pots. A good sound compost should be used, as the plants are now able to assimilate a stronger diet. At the same time, I think it is a mistake to give them very rich soil at this potting. Three parts good fibrous loam, used fairly rough, two parts rough leaf-mould and one part coarse sand is good. A 5-inch potful of bone-meal and the same of soot to each barrow-load of compost are excellent additions. Should the loam be of poor quality, half a part of horse-manure may with advantage be added. Otherwise it is better to leave out the manure. Use perfectly clean and well-crocked pots. Ram the soil quite firm, as the idea is to induce sturdy, short-jointed growth. If loose potting be practised, the plants will grow rapidly and strongly, but so soft and sappy that good flowers cannot be expected.

Bedding Plants.—The hardening off of all bedding plants that are in a forward condition must be attended to in good time. Where cold frames are rather limited in number, it will be necessary to resort to temporary expedients to protect some of the hardier kinds. Calceolarias can now be lifted from the frames and replanted in some sheltered spot, where mats can be easily put over them in the event of frost threatening. Very good temporary shelters can be made in the Celery trenches. If these are thrown out just now and a quantity of leaf-mould spread in the bottoms, the Calceolarias can quite safely be trusted to do well in these. This keeps them dwarf and sturdy, and at planting-out-time they can be lifted with splendid balls. If a few Dahlia stakes are placed across at intervals and mats thrown over these at night, they will be quite safe, and the frames will thus be cleared ready for more tender subjects.

Gloxinias.—The early batches will now be throwing up their flower-buds, and gentle feeding will be very beneficial. Weak liquid manure, made from sheep-manure and soot, given twice a week is excellent. So, too, is a tablespoonful of Ichthemic Guano in a gallon of water. This also should be given twice a week, but on alternate weeks with the other. The later plants will now be fit for the flowering pots. Use good rich compost, with a considerable amount of sweet leaf-mould in it. The Gloxinia responds readily to generous treatment, but the amount of chemical manure given in the soil must not be overdone, or the tender roots will suffer at once and the plants get such a check that the flowers and foliage will be small.

Begonia Gloire de Lorraine.—Where extra fine plants of a good size are wanted, those rooted last spring should now be repotted and well attended to from now onward. These also make far finer baskets than do the young plants rooted in the current year. Shake the plants quite free of soil, as with the constant watering and feeding necessary it has become quite sour and pasty. If the plants are rather small, two or three can be placed in each pot. Pot very lightly, shaking the soil well in among the roots. After many experiments I have found that equal parts of good fibrous loam and good fibrous peat, half the quantity of sweet leaf-mould and some coarse sand give the best results. A little dry horse-manure is admissible but not really essential, as all necessary feeding can be given in liquid form at a later period. After potting set in a moist, warm pit or stove, keep close and well shaded, and syringe twice a day. Keep all flower-buds picked off as they appear. Cuttings should not be taken from these plants, as it is best to give them no check. C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE ROSE GARDEN.

PERPETUAL-FLOWERING RAMBLERS AS STANDARDS.

WHILE fully appreciating the beauty of the wichuraiana Roses on stems, and being one of the first to recommend their culture in this form, I must utter a word of warning to those who may perhaps plant them extensively as to a possible disappointment at the dearth of flowers after the first week or two when they are at their best.

Such sorts as Réné André, Alberic Barbier and Gardenia are superb when in the zenith of their beauty, but in late July, August and September they are merely a weeping, pretty foliaged tree; therefore I would advise all planters to well distribute among such sorts the more perpetual-flowering kinds, of which we have now quite a number. They do not possess, perhaps, the same beautiful foliage or the pendulous growths to such a degree, but nevertheless they make fine spreading heads. First and foremost I would recommend

Trier as a standard; its immense panicles of buff-coloured blooms are very beautiful. Then we have the new

Flower of Fairfield or perpetual-flowering Crimson Rambler, which, if not quite so vigorous as the latter, flowers profusely and continuously throughout the season, and, moreover, the colour is brighter than Crimson Rambler. The pretty white variety named

Fairy possesses all the attractiveness of Rosa wichuraiana (the type), but with quite a perpetual habit of blooming. It blooms from June to September unceasingly; its pretty star-like, pure white single flowers have rich buttercup-coloured stamens. The trails stand out well from the growths, producing a graceful effect. I consider we may well place

Dorothy Perkins among our perpetual-flowering varieties, for although the later display is not profuse, yet it is continuous; and now that we have the White Dorothy, Christian Curle and Dorothy Dennison, which are other pretty sports, these four alone would be attractive in themselves, especially if two or more were budded on one stem.

Alister Stella Gray is a charming pale yellow Rose, forming a huge head of growth and constantly in bloom; so also is

Longworth Rambler with its lively cherry red blossoms, most lavishly produced.

Aimée Vibert is so well known as to need no praise from me; its dark shiny foliage, almost evergreen, is a charming set-off to the large clusters of snow white flowers. There is now a variety of this that bears yellow flowers, which I have, but it has not yet flowered. I hope to be able to make a note upon it during the summer.

Mme. Alfred Carrière makes such a fine head of growth that it should be included in every selection, and it is generally known now to be one of our freest and most perpetual bloomers.

Other good kinds for our purpose would be Climbing Captain Christy, Climbing Caroline Testout, Grüss an Teplitz, Gloire de Dijon, William Allen Richardson, Mme. Berard, Noella Nabonnand, Mrs. Paul and Mme. Isaac Pereire.

P.

ROSE MARECHAL NIEL.

FORTY-FIVE years' service, and still the best, if not the only clear yellow Rose for indoor culture, is a great deal to be able to say in favour of this variety. Vast improvements have been made in all sections or classes, but Maréchal Niel is still unsurpassed. Being rather tender and erratic in growth, it is seldom seen to advantage in the open, and probably quite three-fourths of the plants are grown under glass. More often than not we find it growing in a cool greenhouse or conservatory. This position, or in a well-lighted and slightly heated corridor, is just what it delights in. A great point in its successful culture depends upon securing well-matured rods of maiden growth, which can be induced to bloom from almost every eye or bud. Where many fail is in allowing the plant to grow at random after it has flowered. Like most of our very vigorous climbing Roses, it is better to prune them rather hard at that stage and induce better maiden growths from the base.

Prune gradually, or the plant is apt te develop canker as a result of far too much sap being supplied from the active roots. It is not advisable to have a lot of growth so much as a few rods or canes. These can be trained upon the wall or along the rafters, and are safer when fixed about 18 inches from the glass.

Some of the best results are obtained by planting a half-standard outside in a sheltered corner, and then carrying the rods under cover much after the way of Vines. This can be followed when an inside border does not exist, but we need to prepare and keep the outside border partly protected during growth, otherwise the difference from the roots being in cold soil and the top under warm treatment is too great.

Standards can also be placed so as to carry the Rose growth just above a stage or bench in the house, and so utilise the back wall of conservatories built on to the dwelling. Trained by the side and over the doorway this Rose is often most pleasing. It needs generous treatment and plenty of water when in full growth.

Maréchal Niel is subject to canker more than most Roses. There are many supposed causes for this, and all, to my mind, can be traced to extremes—too cold a soil, the growth unduly interfered with, constriction in any form around the growth and some drastic injury to the roots. I do not believe it is owing to soil alone, for we frequently find a second plant will thrive in the spot where another failed. A more certain bloomer, provided we secure ripened wood, does not exist; and if one does get a few failures, one success is so pleasing that we are sure to try again.

A. P.

CROCUS LÆVIGATUS VAR. FONTENAYI. (*See page 177.*)

FILLING UP GAPS IN ROSE-BEDS.

BY the time these lines are in print it will be too late to plant Roses grown in the open ground, and any gaps it is essential should be filled, or new beds formed, must be accomplished by means of pot-grown plants. By doing the work as speedily as possible much expense may be saved, for while the plants are in a somewhat dormant state they may be sent from the nursery without their pots if balled up in moss, hay, or some similar material. Most growers of pot Roses have pruned back the plants rather hard, which is much better than purchasing those long, slender-shooted specimens which at one time it was the practice to send out. What are known as hard plants should be purchased, for, of course, young grafted stuff can only be transplanted in June. Although more expensive, the plants grown in 7-inch or 8-inch pots are worth the extra money charged for them, as they have several growths and can be made to fill up rather a large gap. Plants potted from the open ground in the autumn are excellent for new plantations, but they must be sent in their pots, and need care in turning out. I have known hundreds of such plants to be sent to one buyer, the object being to make a Rose garden for providing a display the same summer.

In filling up gaps let the soil be deeply dug, throwing it out and mixing with it some bone-meal and well-decayed manure; then return to the same hole and press down firmly with the foot before planting the Roses. Arches and pergolas may be quickly furnished if pot-grown plants are set out now in well-prepared positions. Here, again, there are two examples available at most nurseries, namely, the long, slender-shooted specimens and the bushy type of plant obtained

by potting up field-grown plants. Although not looking so smart, these are much the better value, as they have more vigorous roots, so that subsequent growth is more satisfactory, especially if one or two growths are cut right down and the others retained their full length. In all cases, with the exception of the autumn-potted plants, the ball of earth should be well soaked in water before planting. P.

THE KITCHEN GARDEN.

TWO NEGLECTED SPRING VEGETABLES.

SALSIFY and Scorzonera occupy but a small space in many gardens, and in a larger number still are not grown at all. Some of our seedsmen do not describe them in their catalogues, and on the whole one may term them neglected vegetables. This should not be the case, as we have none too many really good vegetables from March to May, a period of the year when choice is more limited than at any other season. Both these vegetables are grown so easily that it is surprising that they do not find more favour; on the other hand, to get the best results they require a little extra care in cooking, and I fear owing to this they are not favourites in large houses. They are, however, well worth the trouble entailed. I also admit there are failures in culture, and to this point I will briefly refer, as both the Salsify and Scorzonera sown too early in a light, warm soil run to seed, and the roots in consequence are poor, tough and flavourless. This defect can readily be got over by sowing in May in deeply dug loamy soil, giving ample room and thinning early. In the South I have sown early in June, and had roots large enough for all purposes, as by securing a rapid growth the quality is superior.

There are not many varieties of these vegetables. Taking the first-named, there are several forms in this country grown under the names of The Giant and Mammoth, and these are vastly superior to the common form, being much better shaped and the roots more fleshy. On the Continent there are several others under distinct names; these are mostly dwarfer than our kinds and the roots are shorter. The difficulty with Salsify in too rich soil is its branching away at the roots, whereas to get the best results the roots should be thick, fleshy and free of side growths. This branching out also often occurs in poor gravelly soil or in land just the reverse—I mean land recently manured with fresh manure. Deeply dug soil, if manured heavily for a previous shallow-rooting crop, will grow excellent roots that will be available for use from December to May if given as cool storage as possible.

Scorzonera is a totally different root, being much longer, with a blackish outer skin. Given the same culture as advised for Salsify, this is splendid for use in early spring. The roots should have deeply dug land and be sown like the Salsify. The varieties are few, the one mostly grown in this country under the name of Large Russian being the best. On the Continent there are other varieties, and one I grew for several seasons, the Carter Improved, was a much superior form to the older variety. Both these vegetables are at this season imported into this country, and find a ready sale in Covent Garden Market, being sold in neat bundles. In the Northern part of the country I would not defer sowing after the middle of May; but so much depends upon the soil and culture. Both kinds require similar culture, and should be sown in drills 18 inches apart and the plants thinned to half that distance in the row. Once this work is done there is very little trouble afterwards, merely keeping the land clean being sufficient. G. Wythes.

THE FLOWER GARDEN.

THE FASCINATION OF THE CROCUS.

Autumn Croci.

(Continued from page 166.)

THE autumnal species from Greece are rather late to flower. Tournefortii appears first, and is very distinct in form and colour, opening out flat and starry, and never closing at night, so that unless the weather is favourable the blossoms soon get damaged. The colour is a peculiar lavender grey, and the white stamens add much to its beauty. It is said to be rather tender, so I always keep a stock in my cold frame; but here it increases well outside and only needs a hand-light or sheet of glass overhead to protect the purity of the ever-open flowers during their season. Its near relation, the creamy white Boryi, has succumbed whenever I have tried it outside, and is none too vigorous in the frame.

Marathonisius is a great beauty, very large and pure white, with rich scarlet stigma, and if only it could be induced to flower six weeks earlier than it does would be the finest white autumnal Crocus. As it is it needs a sheltered corner, and perhaps some overhead protection to get the best value from its handsome flowers, which come late in November.

Lævigatus, too, is one of the latest to flower, but the substance of its blossoms is so firm and strong that they battle with bad weather better than others. It is a very variable plant, and I have two quite distinct races—one with white ground, variously striped and feathered externally with crimson purple in most, but a few I collected near Eleusis, in a wood just before the road turns down to the shore, are pure white with a creamy yellow outer surface. I only found them by their leaves, as it was in spring when I was there, so doubtless anyone visiting Athens in late autumn could pick out many interesting forms. The other race has a pale lilac ground colouring, and these, too, vary much as to external feathering. The prettiest form is one sent to me by Herr Max Leichtlin as Crocus Fontenayi (Heldr.), but which I cannot distinguish by any character of specific value from lævigatus (see page 176). It is very late to flower, seldom appearing before December, and so not of great value for the open. In most seasons it continues flowering in the cold frame until the early vernal species have appeared, and I like it much for helping to brighten the dullest season of the floral year. It has a buff tint outside, finely feathered with purple, is clear lilac internally, and has a great look of Imperati or corsicus about it.

Waltham Cross. E. Augustus Bowles.

(To be continued.)

THE ALPINE HOUSE IN SPRING.

In the beginning of March the number of species of alpine plants and bulbs coming into flower increase rapidly and the house begins to be attractive. The cultivation of alpine plants in pans is a most attractive form of gardening, as was shown by the splendid exhibit of Sir Everard Hambro at the meeting of the Royal Horticultural Society on March 8. Anyone with a small garden may grow many interesting plants in this way, as the amount of accommodation required is not extensive, and the majority of the commoner as well as most beautiful kinds are easy to grow. Once potted up in suitable soil, many of the Saxifragas and Sempervivums, to mention only two families out of a great number, require little attention besides watering for two or three years. In the case of bulbs, however, it is always desirable to obtain a fresh supply each autumn.

A ROCK GARDEN AT AN EXHIBITION. (*See page 173.*)

With the advantage of a small greenhouse without artificial heat in which to place the pans when the plants are coming into flower their value is greatly enhanced, for then one can enjoy their full beauty unimpaired by unfavourable weather, to which they would be exposed if outside. A view of such a house at Kew is shown in the illustration on page 178, from a photograph taken during the second week in March. This house is unheated, and merely affords a shelter for the plants while in flower. During the rest of the year they are grown with the pans plunged to the rim in ashes in a frame or sheltered border outside. The principal families represented in flower are:

Anemone (Windflower).—This genus is represented by the early flowering A. blanda, from Asia Minor, with its lovely dark blue flowers; A. Hepatica, with shades of red, white and blue; and the South European A. hortensis, with lilac purple flowers, having a paler eye.

Crocus.—Most of the spring-flowering Croci were at their best during February, but several continued to display their attractive flowers well into the month of March, including the purple C. Sieberi, the white-striped C. versicolor and C. biflorus, with C. ærius, to mention only a few of the numerous worthy kinds.

Cyclamen.—These charming plants are suitable for pans, and usually open their flowers in February, but remain attractive for several weeks. There is C. ibericum, with its rosy purple flowers and faintly zoned leaves, and C. Coum, which differs from the other in having unspotted dark green leaves. There is also a white-flowered variety of the latter, a desirable plant. After flowering they should be placed outside to complete their growth, and the corms should then be well ripened off by exposing the pans to the full sun.

Narcissus.—The Narcissi form another valuable bulbous family, some of the smaller-growing kinds being well adapted for the alpine house. The earliest-flowering kind is the snowy white Hoop-Petticoat Daffodil from Algiers (N. Bulbocodium var. monophylla). Others are Angels' Tears (N. triandrus), with its two and three cream-coloured flowers on a stem, the Cyclamen-flowered Daffodil (N. cyclamineus), N. cernuus and N. minimus, one of the smallest in the family.

Primula.—This is represented by the Himalayan P. denticulata, with its dense heads of lilac purple and white flowers; P. Fortunei, closely allied to the Bird's-eye Primrose (P. farinosa); P. marginata, with its silvery margined leaves and pale lilac flowers; and P. verticillata, with mealy leaves and whorls of yellow flowers.

Saxifraga.—This is one of the most important families of spring-flowering plants, and the varieties in cultivation are numerous. The best-known are the various forms of S. burseriana, with large white flowers borne on slender stalks above a cushion of glaucous foliage. Other white-flowered kinds are S. scardica var. obtusa, S. Petraschii, S. Salomonii, S. rocheliana and S. Boydii alba. Yellow-flowered kinds are the lovely S. Boydii, S. Paulinæ, S. apiculata and S. sancta. Among those having red flowers is the Macedonian S. Grisebachii, S. Stribrnyi and S. Frederici Augusti, while for making a charming show in pans there is nothing to excel the purple-red S. oppositifolia and its variety grandiflora. The white variety of the last is also very pretty.

Tulipa.—The Cretan T. saxatilis, with its flesh pink flowers having a yellow base, which opened its flowers at the end of February, was still in full beauty the third week in March. One of the most beautiful members of the genus is T. kaufmanniana, with its variable flowers of cream and yellow with red stripes. Others in flower are the rose purple T. pulchella and the paler T. Lownei from Syria.

Other miscellaneous plants which contribute towards a display in spring include the well-known Arabis alpina; Adonis amurensis, with yellow flowers, with its later-flowering, curious and handsome double variety, with a green fringed centre; Chionodoxa (Glory of the Snow); Fritillaria aurea, with its large chequered bells of golden yellow and brown; and Hyacinthus azureus, which is undoubtedly the most charming little bulb of the genus for this purpose, with a Muscari-like spike of light blue flowers. Among the choicest plants are the Shortias, which include S. galacifolia, from North Carolina, with its white fringed, bell-like flowers; S. uniflora, from Japan, of dwarfer habit with large, pale pink flowers; and S. uniflora var. grandiflora, with larger foliage than the last and deep pink flowers of large size. Morisia hypogæa, with its rich yellow flowers, and the Draba of various kinds help, with others too numerous to mention, to make a pleasing display that is very welcome at this time of year.

THE ALPINE HOUSE AT KEW. IN THE FOREGROUND IS THE BEAUTIFUL TULIPA KAUFMANNIANA.

CULTIVATION.

Although some of the alpine plants from higher elevations require special conditions and soil, a great number are easily accommodated and will flourish freely in gritty or well-drained porous soil. The size of the pans in which the plants are to be grown is immaterial, but the most convenient for general purposes are those 6 inches or 7 inches in diameter and about 4 inches or 5 inches deep. For Saxifragas, Sedums, Androsaces and suchlike plants the pans should be about half filled with broken crocks to secure thorough drainage, but in the case of bulbs or stronger-growing plants less is needed. When in full growth and flowering abundance of water is necessary for nearly all alpine plants; but, at the same time, anything in the nature of stagnant moisture is injurious. The best time for potting up the perennial kinds is soon after they have done flowering for the season, when they can be divided up carefully, afterwards placing them in a frame where they can be kept close and shaded for a time. Bulbs should be potted up in September, or as soon after as they can be procured. After potting the bulbs plunge the pans to the rim in ashes outside; only bring them into the house when they show signs of flowering. After flowering replunge the pans and keep well supplied with plenty of water till the bulbs have matured their foliage, then withhold the water and allow them to be well ripened off.

W. IRVING.

SWEET PEA CHAT.

PLANTING OUT.—Although it is generally accepted that flowers of equal quality can be grown upon plants from seeds sown either in or out of doors, the fact that all our champions adopt the former system with its additional trouble goes to prove that they are not of this opinion. Experience has taught them that the superior rooting system of the plants tells in favour of the flowers when the hot season comes along, and, despite the prejudice that still exists against it in some directions, this will be the universal method before many years have passed.

Those who are not enamoured of pot-sowing assert that it is impossible to transplant without giving a more or less severe check; but this is quite a fallacy. If the management previously has been good, and proper care and intelligence are brought to bear upon the planting out, it is absolutely certain that the plants will not stop growing for more than three-quarters of a second, and one would not expect that such a lapse would throw the cultivator's timing seriously awry. To ensure success the plants must be hard and the soil ready for their reception directly the weather is favourable for carrying out the work.

In some instances, no doubt, the task will have been accomplished, but, generally speaking, the vast bulk of the stock will be transferred to the permanent positions within the coming week, provided, of course, that the climatic conditions are suitable. The top 10 inches of soil should be in a state of perfect friability, and it must be pleasantly moist; if it is light and sandy, then it should have been well consolidated by treading.

In planting, the question as to whether the mass of soil and roots should or should not be divided will almost assuredly crop up for decision. If the final word were with me I should say separate every time, and even when the plants have been singly grown in small pots I have little doubt that judicious loosening always does a decided amount of good. If the soil was dry at the time and the roots shaken almost free of soil were placed directly in it, the check would undoubtedly be severe, and it

PRIMULA OBCONICA SUTTON'S FIRE KING.

would be several weeks before the plants fully recovered; but with moist soil nothing of this occurs. Obviously it is essential that reasonable care shall be exercised, since the operation is something by way of being delicate, for it is most important that few, if any, of the roots shall be broken or injured; it will be found that, if the soil in the pots is just on the dry side when it is turned out, division without the slightest damage will be considerably facilitated.

Immediately the young plants are in their places, twiggy sticks must be placed to them, not only because they will afford the necessary support, but also because they will act as wind-breaks and thus give protection. As tendril development will be small, the young plants should be attached to these little sticks by carefully disposed ligatures. The distance of setting will vary with the ideas and objects of the grower, the minimum being usually 12 inches and the maximum just double as much. In the majority of instances and soils 15 inches or 18 inches are ideal for strong, healthy stock which is expected to produce abundance of splendid flowers over a very protracted period.

Apart from totally unexpected losses due to causes over which even the most skilful grower has no control, we expect that every plant will now make satisfactory progress; but it is wise to take preventive measures as far as slugs and birds are concerned. It is all very well to say that these visitors prefer younger food because it is more tender for them, but if they cannot secure precisely what they want they will not hesitate to take the next best thing, and this may be in the form of the newly planted rows and clumps. There ought to be frequent dredgings of lime in the immediate neighbourhood of the plants, as these will keep back the slugs and at the same time maintain the soil in a sweet condition. To a degree the lime will stop the birds; but in those gardens where these are more than ordinarily persistent it will be wise to utilise some mechanical protection. However, this is one of the many points the final decision in regard to which rests entirely in the hands of the grower. SPENCER.

COLOURED PLATE.

PLATE 1397.

PRIMULA OBCONICA.

THE coloured plate represents one of the most beautiful and interesting species of the Primula family—P. obconica. In recent years there has been a great improvement effected in P. obconica, and the fine varieties available at the present day bear little resemblance to the dull-coloured and comparatively small-flowered representative of the species some ten years ago. Messrs. Sutton's exhibit at the meeting of the Royal Horticultural Society on November 23 showed that the individual flowers have become nearly as large as the best forms of P. sinensis, and the range of colour has kept pace with the increasing size of the flowers.

The first break from the original lilac form was a good rose pink, followed by pure white and crimson. The latest additions in colour are a good clear mauve, and Fire King—the subject of our illustration—and there is reason to hope that a salmon scarlet variety will be obtained in the next few years. It is interesting to note that the whole of this advance is due only to selection with a definite object in view, P. obconica having persistently refused to cross with the other allied species, notwithstanding innumerable attempts in this direction.

In its improved form, P. obconica is certainly one of the most useful flowers for the conservatory; it is absolutely perpetual flowering, and from a sowing in the early months of the year, with a minimum of cultural attention, beautiful plants in full bloom may be had in autumn. These will continue to flower throughout the winter, when they are most wanted.

THE FRUIT GARDEN.

THE MYROBALAN OR CHERRY PLUM.

FRUITS of this tree find their way into our markets in July and August from France somewhat in advance of our earliest garden Plums. Trees in England sometimes mature a fair crop of the scarlet fruits, but no dependence can be placed on them, for frequently a large example may carry but a dozen Plums instead of a hamperful. This is probably due to its early flowering period and the prevalence of spring frosts in England during March and April. As a rule, the type, Prunus cerasifera, blossoms during March, and it is a conspicuous object, for every branch is laden with white flowers, and it rarely happens that a poor crop of bloom is matured. A fully grown tree may be 30 feet high with a large head, but more frequently it is met with under 20 feet with a wide, bushy head and a trunk a foot or more in diameter. The well-known and popular P. Pissardii is a variety of this species, and its correct name is P. cerasifera atropurpurea. It is conspicuous by reason of its purple leaves. Flowers are borne quite as freely as in the case of the type, while the fruits are rather darker in colour. It is not, however, as an ornamental tree alone that this Plum is grown, for it is an excellent hedge plant and thrives under varied conditions. When kept clipped it soon becomes dense, and as it is somewhat spiny an impenetrable fence is formed. P. divaricata is a closely allied tree with yellow fruits. D.

GOOSEBERRIES AND CURRANTS AS CORDONS.

I AM quite sure that these fruits are not grown as cordons so extensively as they deserve, especially in gardens where there is ample wall space. I also favour the growing of cordons in the open border in the same way as Raspberry canes are grown. In this note I will confine my remarks to the cultivation of cordons on walls. There are many gardens in which there is much wasted wall space owing to the large gaps between fruit trees and vacant buttresses. For upwards of ten years I had charge of gardens in which there were nearly 1¼ miles of garden walls, measuring both sides of each wall. These gardens had been justly famous for the quantity and the high-class of the fruit grown in them. But when I took charge I found the majority of the wall trees very old, too old to be profitable; furthermore, some of the varieties were obsolete, so I commenced the work of planting young trees. The principal walls were 10 feet and 12 feet high, and strong buttresses were prominent features. Of course, the digging out of old specimens and the planting of young trees left a certain amount of wall space that could not be covered permanently for some time, and I made good use of it for the accommodation of Tomato plants and cordon fruit trees.

A VIEW OF THE JUBILEE SHOW AT HAARLEM. (*See page 184.*)

I will give a few hints on the treatment of Gooseberries and Red and White Currants as cordons on walls. If the wall is of medium height the cordons may be trained upright; but if they are rather low, diagonal cordons will be most suitable. Until the tree has reached its allotted height the leading shoot should be carefully nailed to the wall or tied to the wires, as the case may be. It is very important that the trees be planted in deeply trenched borders and the soil made fairly rich. After the planting is done, surface mulchings must not be neglected.

Ripe wood is essential, and there will not be much difficulty in obtaining it if the trees are planted about 16 inches apart. Shoots which grow straight out from the wall will bear fruits in due course, but it is not advisable to allow such shoots to grow. They are best removed early in the season while young, and so rely upon the side shoots for the formation of spurs and fruit-buds. The finest fruits of Gooseberries are borne on the young wood. The greatest success is obtained by judicious summer pinching of young wood and autumn pruning of matured shoots; but great care should be taken to protect the buds on the trees from the attacks of birds during the winter months.

If fruits for exhibition are desired, the trees must be fed liberally with weak doses of manure-water during the early stages of the swelling of the fruits. The ripe berries are easily protected from birds by nets; and by planting in different aspects the supply of ripe fruits for dessert purposes may be lengthened considerably. AVON.

GARDENING FOR BEGINNERS.

THE RIGHT AND WRONG WAY TO SOW SEEDS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—The main crop of Potatoes may now be planted, and the particulars regarding the work which were given for early varieties in the issue for March 19 will apply with equal force to these later varieties. The rows for main-crop Potatoes will need to be 2 feet apart, and 15 inches

1.—THE RIGHT WAY TO MAKE A SEED-DRILL. NOTE THAT IT IS FLAT AT THE BOTTOM.

should be allowed between the sets in the rows. Make sowings of Brussels Sprouts, Cabbages and Cauliflowers in the open to succeed the earlier crops that were sown under glass. Frequently these outdoor-raised plants come in for use quite as early as those raised under glass, particularly if the latter have not had very careful treatment. The main sowings of Carrots should be attended to now, choosing an intermediate variety for this crop. The roots of these usually keep better during the winter than the Shorthorn varieties. Sow in flat-bottomed, shallow drills 1 foot apart, first raking the soil down finely. After sowing fill in the drills, tread rather firmly, and lightly rake over so as to give the beds a neat finish.

Flower Garden.—In the Southern and Midland Counties the present week will be a good one to get those annuals sown which are usually regarded as hardy, though in reality many of them are not so. Nasturtiums and Convolvulus major may be left for another fortnight before sowing them. In addition to the list of very hardy kinds given on March 19, and which were recommended to be sown then, such kinds as the Swan River Daisy, Malope grandiflora, Silene pendula, Phacelia campanularia, Calandrinia grandiflora, Clarkias, Helichrysum (Everlasting Flower), Godetias, Collinsia bicolor, Centaureas, Erysimum perowskianum, Love-lies-bleeding, Linum grandiflorum rubrum, Larkspurs and Viscarias may all be sown now. Usually annuals are used for growing in clumps towards the front part of the border, or for edging or carpeting beds of permanent plants. In any case, the soil should be made rather fine previous to sowing, and thin sowing must always be carried out. It is all very well to sow thickly and intend to thin the seedlings early, but frequently this thinning is needed at a very busy season and, consequently, is left until the seedlings are partially or totally ruined.

Room Plants.—In most localities, and speaking of the kinds of plants usually grown entirely in rooms, the present is a good time to do any repotting or top-dressing that may be required. It is well at the outset to make absolutely certain that the plants to be dealt with do really require repotting before doing so. Most amateurs are far too fond of giving their plants pots of too large a size. Unless a plant is very badly cramped for root room it will usually be best in a rather small pot, because it is more easily managed and more useful generally for decorative work. In any case where repotting is decided upon, the new pot ought not to be more than 2 inches more in diameter than the old one; and it frequently happens, especially in the case of unhealthy plants, that the plant will only need a pot of the same size as it previously occupied, removing some of the old soil to admit of its going into a pot of this size. In many cases a top-dressing is quite sufficient, and this consists of removing carefully an inch or more of the old surface soil and replacing it with new. A good potting soil for room plants of most kinds is composed of good fibrous loam two parts, well-decayed manure or leaf-soil half a part, and coarse sand half a part. For Cacti and other succulent plants replace the manure or leaf-soil with coarse peat, or leave out altogether and mix a good amount of old crushed brick and mortar with the soil.

Lawns and Verges.—These will need sweeping and mowing at frequent intervals now, and under no circumstances should mowing be done less than once a week; twice will be better if it can be done. In addition, all edges may be cut neatly for the summer, using a good line and a sharp edging-iron for the work. In cutting the edges of circular or oval beds it will be necessary to carefully peg the line firmly in position before commencing the work. When the edging is done at this season the newly cut surface usually dries quickly and remains firm and neat for the summer.

A. A.

THE ART OF MAKING SEED-DRILLS.

To the beginner in gardening it may seem but a trifling matter whether the drills wherein seeds are sown are properly made or not; but the professional man knows only too well that it is minute details of this description which frequently have considerable effect on the resultant crop. For this reason the two accompanying illustrations of Peas sown in drills or rows have been prepared. In Fig. 1 it will be noticed that the drill is broad and flat-bottomed, and this is how it should be. A careful inspection of it will reveal the Peas scattered moderately thinly all over the bottom of the drill, although at the far end they look rather crowded, but this is the fault of the camera. The important point to note is that two Peas do not touch each other in the row. For the purpose of illustrating the subject the Peas in this instance were coated with whiting to form a better contrast to the soil.

If we turn now to Fig. 2, we find there a drill such as is usually made by beginners and many amateurs who are not beginners. A line is put down and the drill usually made with the corner of a draw hoe, so that the sides slope sharply to an acute angle at the base. In such a drill the Peas all fall closely together at the bottom, and the result is that the plants are crowded from the start. In the drill shown in Fig. 1 each seedling has room to become sturdy before commencing to climb, and this may be regarded as almost half the battle won. Drills for Peas should be about 4 inches wide, and for Beans 6 inches is not too much. The above remarks apply with equal force to drills made for all kinds of seeds, the width, of course, depending upon the seeds to be sown.

H.

CELERY TRENCHES.

THE general idea of the inexperienced is that Celery plants must be grown in deep trenches in order to obtain the best specimens. The Celery plant is moisture-loving and always thrives best in a deeply tilled, moist soil, such as is found in some parts of Lancashire, the Midland and Eastern Counties. Celery must, however, be grown in nearly every garden where vegetables are appreciated, and as all soils are not just suitable for the plants, they must be improved.

It is a great mistake, however, for a novice to plant Celery in a deep trench where the subsoil is a cold, clayey one. The top 12 inches of soil in a garden is always better than the subsoil. It is so because of yearly tilling, manuring and hoeing. Water, warmth and air pass freely through the top portion, and so benefit the roots

2.—THE WRONG WAY TO MAKE A SEED-DRILL. NOTE THAT THE PEAS ARE ALL CROWDED TOGETHER.

of plants growing there. These facts being admitted, the beginner will at once realise the folly of putting his Celery plants in a cold, inert, lower medium. When I speak of the average Celery trench, I mean one that is about 7 inches to 9 inches deep, and in all cases I advise that some of the top soil, first removed, be put back in place of some of the subsoil brought to the

A CHESTNUT SHOOT THAT HAS BEEN SPROUTED IN WATER.

surface. In this way, and by judiciously mixing some well-rotted manure with the soil in the bottom of the trench, a good rooting medium may be provided for the Celery plants.

Making the Trenches.—As a rule the plot of ground on which the Celery crop is to be grown is allowed to remain uncropped until the plants are in fit condition to be put out. This is a decided waste of space and labour, as weeds will grow, and they must be kept down by hoeing. There should be some return for the labour bestowed on this particular plot prior to its occupancy by Celery. The wisest course is to make the trenches at once—it is not necessary to put in the manure at the same time—and grow early Spinach or Lettuces on the ridges between. We all know how well Lettuces will grow in the apparently dry ridges of soil; but there is a double depth of soil there, it is usually good loam and warm, consequently the Lettuces do well. Spinach would also. For single rows of Celery the trench should be 15 inches wide at the bottom, and the space between the trenches 18 inches wide. For two rows in a trench the latter must be 18 inches wide and the space between the trenches 30 inches wide. Allow a little more space for show specimens. SHAMROCK.

AN INTERESTING CHESTNUT SHOOT.

THE Chestnut shoot shown in the accompanying illustration has entirely developed from the bud in water on the dining-room chimney-piece. It, of course, owes its perfect beauty to being protected from wind and weather; but whence does it get the constituents that build up such a shoot from a single bud? Twigs of other trees and shrubs are similarly growing in water, but none of them is so striking in size and character.

MOLLY CUTTS.

[The new shoot is built up from reserve food that was stored in the shoot when the latter was cut from the tree. This food would be stored there last autumn, principally by the aid of the leaves.—ED.]

VIOLET LA FRANCE.

LA FRANCE is probably the largest of the single-flowered Violets—if not, indeed, *the* largest of all—its only competitor in this respect being the equally popular and also very large, single-flowered variety Princess of Wales, both of which are without equal among the singles. But quite apart from great size of blossom, La France is also possessed of a great length of stem, or stalk, an attribute which most eminently fits it for work of a decorative character on the dinner-table or in the sitting-room. Violets generally, however, are not suited for vases of any considerable size or depth unless arranged in bunches that almost invariably have about them an element of clumsiness, which is by no means desirable, while all such arrangements are inelegant to a degree. Where a larger bowl or vase of other flowers is being used on the dinner-table, Violets may be employed in crescent or other shaped receptacles around with excellent results, and, associated with a few of their own leaves, provide a pleasing and enjoyable feature. By far the better way when employing such long-stemmed flowers as La France is to use glass dishes or bowls of convenient size, such as that shown in the accompanying illustration, when, by the use of wet sand placed in the bowl, the blossoms can be arranged to advantage. There is also that convenient wire arrangement known as "Floral Aid," which, provided it is hidden from view, is of much service in supporting flowers like those of the Violet, and which are not strong enough to stand alone. With such an arrangement as this a margin of Violet leaves is of considerable importance, and by placing these in diverse directions and inserting the blossoms so that they stand out clearly above the leaves a good effect will be secured. A chief object of the illustration is to show one of the best ways of utilising these flowers as opposed to formal bunches.

THE TOWN GARDEN.

BEDDING PLANTS.—Where the autumn-rooted cuttings of such things as Zonal Pelargoniums—commonly, though erroneously, referred to as bedding Geraniums—were potted earlier in the year and have now become established, the plants may be transferred at any time from the greenhouse shelves to cold frames. In the latter a drier condition of the soil about the roots will be an advantage for a few days, and in any case for the present the water supply may be lessened. A frame having a sunny aspect should be selected so as to receive a moderate amount of sun-heat. In not a few instances the suggestions made to build a frame against the greenhouse wall have been followed, with excellent results, and the better in those instances where by means of box ventilators in the wall of the greenhouse the frame may be heated therefrom. Where such adjuncts to the greenhouse do not exist, it may be necessary to cover the frame with mats in case of frost.

TUBEROUS BEGONIAS.—As a bedding plant the tuberous Begonia outrivals the Pelargonium, more particularly in the matter of profuse flowering, though in fairness be it stated that the latter is not infrequently the first to flower, while it perhaps has no equal during a very hot summer. The Pelargonium, too, produces its blossoms with greater freedom when the plants are confined to their pots; that is to say, by plunging the plants in the beds in pots 5 inches in diameter instead of planting them out, a more compact growth and a greater freedom of flowering are ensured. One great drawback to the Pelargonium as a bedding plant is that cuttings must be taken each year in autumn; hence much of the display is lost. With the Begonia cuttings are not required, and the plants can therefore flower with their wonted freedom till the arrival of frosts. Where the Begonia tubers are not already secured, a supply should be obtained at once and the tubers set on soil in shallow boxes to commence growth.

TOMATOES FOR THE OPEN.—The plants of these should now be in 3-inch pots, the latter standing on a shelf near the glass where abundant air can reach them. Sturdy, short-jointed and hardily grown plants are most desirable for open-air planting, and the firmest potting, in conjunction with a rather poor soil and plenty of air, is the only way to obtain them. Rich soils, loose potting, a close, stuffy atmosphere and excessive supplies of root moisture—these are the things that promote grossness of growth, which is but another name for unfruitfulness, and must be avoided.

SOME EARLY FLOWERING ALPINES.—Those of my readers who take keen delight in the earliest flowers of the year should. if possible, pay a visit to the Alpine House at Kew, and obtain ocular demonstration of the wealth of beauty and charm that it is possible to obtain in one small and absolutely cold greenhouse. I lay considerable stress on the fact of the house being "absolutely cold," so that no erroneous idea of tender plants can possibly obtain a foothold. The Kew Alpine House, indeed, is but a glorified frame, a convenient-sized structure to be entered at will, and where the plants can be examined at leisure. Hence it will be seen that such a house is but a means of protection, such protection becoming more of a necessity each year, because of that greater host of choice early flowering alpines that have been gathered together from distant lands and whose flowers would be sadly marred by the vagaries of an English winter were they left unprotected. Protection, therefore,

A BOWL OF VIOLETS LA FRANCE.

is the great aim of the alpine house, and, judging by the ample ventilation afforded the plants, no nursing or coddling is ever dreamed of.

A Few Choice Spring Plants.—To attempt a list of the plants to be had in flower at this time is out of the question, so one must be content by giving a few. Of these, Adonis amurensis and its double-flowered form, Saxifraga Boydii (yellow), S. b. alba, S. burseriana, S. scardica, S. oppositifolia (in shades of rose, white and crimson), Shortias uniflora and galacifolia (white, pink-tinged flowers of exquisite beauty), early Coum Cyclamen, Irises of a bulbous character, with Squills, Chionodoxas and Dog's-tooth Violets make the alpine house at this season one of the most delightful of the many this famous botanic garden contains. E. H. Jenkins.

NEW PLANTS.

Cattleya Robert de Wavrin Westonbirt variety.—This is a very large-flowered variety of exquisite shape, and the colour is quite a soft and artistic blending of mauve and purple. The sepals and petals are bright rosy mauve, and the large, well-shaped labellum is rich purple, with deep yellow markings in the throat. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Tetbury, Gloucestershire. First-class certificate.

Houlletia Sanderi.—This is a new species from Bolivia, the flowers being borne at the apices of stout, upright stems some 12 inches in height. The blossoms are about 1½ inches in diameter, very hooded and dull primrose in colour. Shown by Messrs. Sander and Son, St. Albans. Award of merit.

Odontoglossum thompsonianum Gatton Park variety.—This is a very beautifully marked variety. The flowers are almost star-shaped, the segments reflexing to a great extent. The ground colour may be described as a sort of rosy mauve, and on each segment a large, regular-shaped blotch of rich plum colour is placed. The flowers are sparsely placed on a very long, arching stem. Shown by Sir Jeremiah Colman, Bart., Gatton Park, Reigate. Award of merit.

Lælio-Cattleya Trimyra.—This is the result of a cross between C. Trianæ and C. Myra, and partakes principally of the latter parent. The flowers are of medium size and rich golden yellow, no other colour being present in any of the segments. The labellum is, perhaps, of a rather deeper hue than the sepals and petals, but the flower may truly be termed a beautiful self. Shown by Sir Trevor Lawrence, Bart., Burford, Dorking. Award of merit.

Odontoglossum Gladys H. W. Cheal.—A very beautiful and attractive variety of exquisite markings. The sepals and petals are sharply pointed, the ground colour of these being rich cream. These are freely spotted with large circular dots and larger blotches of bright brown-red. The labellum is golden yellow and is also marked the same as the petals. The habit is similar to that of O. crispum. Shown by Messrs. J. and A. A. McBean, Cooksbridge, Sussex. Award of merit.

Calathea crocata.—A genus of stove foliage and flowering plants akin to Maranta, the leaves in not a few instances being of a very ornamental character. The species named is from Brazil, whence it was introduced in 1875. The club-shaped flower-masses are of a saffron colour and very striking. Shown by Sir Trevor Lawrence, Bart., Dorking. Award of merit.

Rhododendron primulinum.—A new hardy species from Western China having Box-like leaves and somewhat small campanulate pale primrose-coloured blossoms freely arranged on the sides of the erect branches or stems. The species is a very distinct one, and by reason of its proved hardy nature is calculated to be of much value to the hybridist. Shown by Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Carnation R. F. Felton.—A pink-flowered variety of great size and beauty, the largest of its kind yet seen. In colour it is much deeper than Enchantress, and quite surpasses this favourite in size. A great stride onward and, happily, of British origin. Shown by Mr. H. Burnett, Guernsey. Award of merit.

All the preceding were shown before the Royal Horticultural Society on the 22nd ult., when the awards were made.

BOOKS.

Some dainty booklets.—We have received from T. Werner Laurie, Clifford's Inn, a dainty little series of booklets written by Mrs. Davidson, one of our most valued contributors, with a coloured frontispiece to each by Mr. C. E. Dawson. The booklets will go comfortably into the waistcoat pocket; but no doubt there are many who would like to give the series as a present to gardening friends on the occasion of some festival or birthday. The little essays are reprinted from "Gardens, Past and Present," by Mrs. Davidson, and here are the notes—most instructive—on "The Rock Garden":

"'Clinkers,' in the words of an old dictionary of 1730 or thereabouts, 'are those bricks that, by having much nitre or saltpetre in them (and lying next the fire in the clamp or kiln), by the violence of the fire run and are glazed over.' How often, in the days of long ago, were these same clinkers employed, and even recommended, for the construction of rockeries, on the principle, perhaps, that there is a use for all things under the sun. Far be it from me to hint that clinkers are without a value of their own. As an aid to drainage, for example, they serve admirably, where they are out of sight; but they are taboo for the purpose of the simplest rockery, dear as they may be, even yet, to the heart of the suburban builder. Probably the early recollections of many a would-be gardener, besides the present writer, include a childish attempt, with the help of Stonecrops and London Pride, to make a thing of beauty out of these unsightly lumps of refuse from some convenient brickfield. But, after all, we need scoff as little at such poor beginnings as at the early attempts at fine art left by prehistoric bushmen on the cliff walls of some ancient fastness of a South African kloof. Who can foretell what fertile germ of inspiration may lie hid within such first essays? It is certain that the elemental idea of the rockery has fulfilled itself in a wonderful way in the modern rock garden.

"As far as memory serves, we need not search far behind the clinker age for the earliest beginnings of the rock garden; for it is more or less the outcome of modern travel. It is true that alpine plants were not altogether an unknown quantity to early British botanists, but they were not much meddled with by the gardeners of old time. A few Saxifrages, under the folk-name of Sengreene, are figured in the 'Paradisus Terrestris,' with some alpine Primulas or Beares-eares, another old English name which lingers still in the West Country for the Auricula. Ramondia is also classed by Parkinson, though under protest, among the Primulas as 'the blew Beares-eares with Borage leaves'; and of Soldanella he says: 'This groweth on the Alps which are covered with snow the greatest part of the yeare, and will hardly abide transplanting.' But among all the minute directions for his garden of pleasant flowers, there is no mention of rockwork as a mode of growing mountainous plants, though 'a rocke or mount with a fountaine in the midst thereof' may be a part of the garden's delight, 'according as every man's conceit alloweth of it and they will be at the charge.'

"The greatest impetus to real progress in this phase of English gardening was presumably given by Mr. Robinson when the earliest edition of the 'Alpine Garden' was brought out. From that moment the cult of the diminutive gems of mountain herbage was established, and we have been trying ever since, with varying measure of success, to bring the spoils of the high Alps to the level of the plains. In one famous garden now a good many years ago, there were in fact miniature mountains where the lower rocks and their vegetation gradually merged into snow-capped summits, simulated by the silvery growth of Antennaria and other minute hoary-leaved plants. But without aspiring to emulate Nature in these her grandest moods, we may venture to observe and follow her methods, and to adapt where we cannot imitate.

"One reason why rockwork of any kind appeals to us so strongly is, not only that it affords vantage ground for the smaller and more delicate plants, many of which are supremely beautiful, but also because it brings them closer to the eye where their perfections can be enjoyed with comfort. Strictly speaking, the rock garden is associated only with the cultivation of mountain plants. In common speech, however, the word 'alpine' is most frequently used, except by the expert, to mean any plant of moderate growth which is more suited by height and habit to a raised position than for the level border; and this definition may fairly stand in relation to the ordinary English garden. Few people, except the most ardent enthusiasts like Mr. Farrer, the owner of that delightful Yorkshire alpinery, of which he gives so charming a history in 'My Rock Garden,' could undertake or indeed find any inspiration in the minute and dazzling, but provokingly capricious, denizens of the highest rocks and moraines. Fortunately there are hosts of other plants of less difficulty which may be beloved of ordinary folk, with fair hope of success.

"My own lines, years ago, were laid on dry chalk hills where flints were plentiful—the last kind of stone, perhaps, which would suggest itself for rockwork of any sort. For flints have a certain smooth aggressive baldness that is provokingly obtrusive and difficult to veil. Yet in the clear air of those bleak uplands, and in an unpretending little alpine garden, consisting partly of narrow, stony borders on the level and bounded by a very primitive rockwork built up of those unpromising flints, many beautiful low-growing plants, some of them genuine mountaineers, were quite content and even happy. The vigorous blue flower-spikes of the Carinthian Wulfenia, at a time when its dislikes were less understood than now, used to excite the admiration and envy of less fortunate neighbours; and ah! how the lovely Rocky Mountain Aquilegia and the Siberian A. glandulosa used to thrive in that little garden, for it was possible then to obtain good seed and pure of the unmixed species of Columbine, which can hardly be said now, while Himalayan Primulas grew fat and flourishing in one of the shadier borders. The soil was naturally full of lime, which suited the lime-lovers like the encrusted Saxifrages. The drainage in a chalk district is always perfect as far as stagnant moisture is concerned. The flint held all humidity without absorbing it, and many a dainty little alpine flourished in that garden which I have not since found it, in more favoured places and at lower altitudes, so easy to cultivate.

"Before starting on the subject of the different types of rock garden, let me give a word of warning against 'rooteries,' which are only a shade less objectionable than clinkeries. A certain picturesqueness is the only advantage that can be conceded to rootwork, except that of cheapness, while the continual annoyances arising from the harbourage given, by decaying wood, to destructive fungi and noxious animals, to say nothing of prospective collapse of the whole structure, are too formidable to face for a temporary convenience.

"The Simplest Form, Perhaps, of Rockwork is the rock bed, where big boulders or blocks of stone of various shapes and sizes are so sunk as

appear to crop up naturally from the surface. Such a rock bed may be either on the flat or on the slope; but, in any case, the ground must be dug out to a depth of at least 2 feet, to make a solid foundation upon which the stones can rest without fear of being undermined by frost or superabundant rain. Into this hollow suitable soil must be thoroughly well packed after the stones are carefully placed. These arranged at irregular heights and in groups as much as possible according to nature, should give the effect of a bit of rock-strewn moor or hillside adapted to a garden. Such a rock bed with suitable planting of low-growing shrubs, like the prostrate Savin (Juniper) or some of the dwarfer Brooms, Cistus or Heaths on the higher parts, and spreading drifts of Aubrietias, Mossy Phloxes, or other creeping plants towards the edge, with here and there, to make a few suggestions, groups of taller growth—some of the hybrid Columbines or Anemones, perhaps, or the fine sorts of Pentstemon or scarlet Lobelia—would be a source of continual pleasure, and might be varied indefinitely. A crowning of some of the higher points with one or other of the Yuccas—the dwarfer Y. flaccida seems to flower every season without fail—would in some positions of the kind be very effective. In a dry soil some of the hardy Opuntias would thrive and be very distinctive.

"Another simple form of rockery is the hillock or mound, which may be large or small according to the space at disposal. The height above the ground line may, in this case, rise to about 4 feet, while the sloping sides would allow of varied aspects, sunny and shady, to suit plants of different character. Experts insist, for this type of rockwork, on the importance of forming in the first instance a strong and stable skeleton of stonework, the blocks or slabs resting firmly each upon each, but with as many angles and spaces and pockets as possible. This done, the prepared loam, peat and leaf-mould, well amalgamated and intermixed with chips and nodules of stone, which constitutes a likely compost for most alpines, must be filled in with the utmost care. Loose packing, with the ultimate result of settlement of soil and dangerous hollows, is fatal to the well-doing of delicate plants. Externally the stones should jut out irregularly to form little shelters or caves and chinks, into which plants will cuddle themselves according to their nature in the most bewitching way. In early days a rockery of the hillock form was sometimes parcelled out, regardless of appearance, into little square pens surrounded by slabs of half-sunk stone. It answered admirably—for the alpines. They settled themselves snugly into their separate compartments, and hugely enjoyed the protection of the sheets of glass with which it was quite easy to shield them from the fatal damp of our English winter when it arrived. But the effect! It suggested nothing so much as an overcrowded cemetery, and the mimic tombstones failed to carry conviction even to the least æsthetic of alpine growers. The genus 'gardener' may be roughly divided into lovers of plants and lovers of pictorial effect; and happy is he who can reconcile the opposing loves.

"The Sunk Rock Garden,

with a broad pathway running through it, is a more ambitious structure, and is often built with facing blocks of sand or limestone according to natural stratification, with bays and hollows for the accommodation of plants of varied requirements. A rock garden somewhat of this character is well known to the frequenters of Kew.

"Happy are they who, in planning a rock garden, can combine both rock and water. An open meadow with a tinkling brook running through it is as favourable a site as could well be desired, for it may be transformed, by efficient generalship and adequate material, into an ideal spot. Ideal, too, for this practical reason among others, that only a few plants, comparatively, prefer the shade of trees, and for the class of which we are treating there is nothing more essential than free circulation of air with unimpeded light as well as security from damp and drip. Whatever form, therefore, a rock garden may take, the site should be open and free from overhanging verdure. This general principle does not apply, of course, to a screen of trees at some little distance to serve as a windbreak." Then follow other useful hints on this delightful subject of rock gardens. The price of these charming little books is not given.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor of The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Seedling Carnations failing (*H. E. C.*).—Your non-success with seedling Carnations is undoubtedly owing to the plants being absolutely starved. You did quite right in sowing the seed in March and potting the young plants into 3-inch pots when they were sufficiently advanced. After that the treatment was all wrong, and to keep the plants in these pots till the following spring, allowing them to get parched up during the summer, was simply courting disaster. The fact that any survived this treatment shows the accommodating nature of the Carnation. The young plants should have well furnished the 3-inch pots with roots by the end of May, and then have been planted in the open border. It is very necessary that the ground be dug deeply, and some well-decayed manure ought to be incorporated with the soil. It is very necessary to plant firmly, and to water thoroughly providing the weather is dry. Carnations under these conditions will grow freely and form good plants by the autumn. Treated in this way they will, unless exceptional circumstances prevail, pass through the winter with little, if any, loss, and during the flowering season a wealth of blossoms may reasonably be anticipated.

Pruning Solanum jasminoides (*G.*).—This ought to be pruned at once; it may be cut in moderately hard to within two or three buds of the base of last season's growth. If it is outgrowing its position, the main branches also may be shortened. The plants on the wall with a south aspect ought to thrive, but the northerly position is a bad one. In County Kerry it ought to thrive over a bush or on Pea-sticks in the open border. It is sometimes used effectively in herbaceous borders in Devonshire and Cornwall.

Information about Violets (*Argentine*).—All that you have to do to ensure a reply being given in the "Answers to Correspondents" columns of The Garden is to conform to the simple rules given in each issue and to put your questions as briefly and clearly as possible. No charge is made. With regard to the Violets, the plants may be removed from the frame at any time when their flowering is no longer considered serviceable. The end of September is a good time to frame the plants. To your enquiry, "Where should they be put till returned to frame?" the answer will depend on circumstances. If you have young stock, the old plants should be thrown away; if not, the youngest pieces of the plants should be replanted in well-dug garden ground. Where the best results are looked for, cuttings of unflowered runners should be inserted in frames in October or November and planted out early in April. A border having a western exposure is suitable; a dry, hot position should be avoided. Several notes concerning Violets have been given in "The Town Garden" column of late. See the issues for January 29 and February 5 for particulars.

TREES AND SHRUBS.

Magnolia grandiflora (*K. R. Image*). It is not unusual with Magnolia grandiflora growing against a wall to produce flowers on the upper part and not on the lower, or very rarely so. We are afraid that there is nothing that you can do to induce it to produce blossoms about the base, for the upper part always produces the best flowering wood, possibly on account of getting more sun or of being more exposed. It will be rather difficult to get it back to the wall, as you say that the branches stand out to a distance of 4 feet. Your best plan will be to prune it at once. Commence by thinning out the branches, and such pieces should be cut as far back as possible. Then tie a number of the other branches back to the wall as well as you can, and shorten the remaining branches. The pruning will have to be attended to for two or three years before the plant is got back to its right place. If you cut it hard back all over it will look very bad for some time, and the plant may not stand the shock, while by such treatment you would obtain no flowers for some time. If you adopt the method advised, blossoms ought to appear next summer as usual. Be careful to protect all wounds with a coating of tar as soon as the pruning is done.

Magnolias dying (*Lady R.*).—The unsatisfactory condition of your Magnolia may be due to any one of three causes. First, it may have grown very late last year and the points of the shoots have been badly ripened through the wet and dull weather, hence their inability to withstand the winter; secondly, the ground in which it is growing may have been water-logged at some time within the last few months, which would cause the tree to act as it is now doing; or, thirdly, the roots may have got into the subsoil, which may be of a sour character. We advise you to open a small hole at a distance of 3 feet or 4 feet from the trunk and examine the roots. If they appear healthy, cut away the points of the shoots which have lost their leaves, and the plant will recover as the weather becomes warmer. Should you find that the roots are in a bad state and the soil sour, carefully fork away the soil from the feeding roots and fill up again with a compost of light loam and peat in equal proportions, with some soil of a sandy character. It is not wise, however, to meddle much with the roots unless it is absolutely necessary, for Magnolias in general are very impatient of root injury. If you injure any roots in your examination, be careful to cut off the ends clean with a sharp knife before again filling in the hole. Should the roots be in a very bad condition, it will be almost impossible to save the tree.

Diseased Larch bark (*J. G. B.*).—The larger of the holes in the Larch bark have certainly been made by a woodpecker or enlarged by one in its efforts to reach some insect inside the tree. What that insect is is not clear, however, as the material is not sufficient to show the nature of the burrows. It is very doubtful whether spraying would have any effect upon the pest, whatever it may be; but perhaps you could get a specimen for us to see. You might try what thrusting a sharpened wire into the tunnels will do, and then paint the affected part with a mixture of clay, soft soap and paraffin, but do not use too much of the last.

ROSE GARDEN.

Rose Cloth of Gold budded upon a Hybrid Perpetual (*R. M. M.*).—Some twenty-five years ago the writer of this note budded a Cloth of Gold upon a plant of Cheshunt Hybrid, this latter being budded upon the De la Grifferaie stock. All the growths of Cheshunt Hybrid that appeared above the inserted bud were in due course cut quite away close up to the Cloth of Gold bud. In this manner, of course, no growths of Cheshunt Hybrid appeared above the Cloth of Gold, but shoots springing from beneath bore Cheshunt Hybrid blooms. The plant was dug up and planted in a large tub under glass, where eventually it bore a fine crop of Cloth of Gold blooms, and then was sold. In

your case, we take it that the Cloth of Gold was budded in two places, one about 2 feet above the ground and the other 4 feet to 6 feet from the base. These buds would in due course shoot out and bear Cloth of Gold blooms, but dormant eyes from the Hybrid Perpetual stem would also in course of time break out unless suppressed, and would, of course, produce crimson blooms. This is the only way we can account for the crimson blooms. If this theory is not correct, we should be pleased to hear further from you.

Pot Roses failing (*Rose Lover*).—You did wrong in putting the plants in your greenhouse so soon after potting them up. Roses when potted from the open ground should either be plunged in ashes and allowed to remain outdoors until new roots are formed, or else placed in a cold pit for a few weeks. We should say the cause of the foliage falling off is owing to too much moisture at the roots, and also because the plants have not been pruned sufficiently hard. We advise you to cut them back now to good dormant buds and at the time of pruning paint the ends of the shoots with some painter's knotting, which will prevent them "bleeding," a term applied when the sap is shed following the cutting. If you could possibly give the plants some bottom-heat they would be much helped. A bed of fresh long stable manure with fresh leaves added produces a steady warmth which the plants much appreciate. Failing the manure, you could arrange some boxes of Cocoanut fibre to be placed on hot-water pipes, and the pots could be plunged in the boxes up to their rims.

FRUIT GARDEN.

Peach and Nectarine trees dropping their buds (*P. H. R.*).—We cannot find a trace of mildew or any other fungus to account for the serious damage done to your trees. We believe that something has gone wrong with the roots. Not only do the points of the young shoots flag badly (being the most tender they naturally flag first), but the hard wood you sent is dry and practically sapless, showing that the sap circulation of the trees has been disorganised through some cause or other; hence buds dropping. Our advice to you, under the circumstances, is not to over-force the trees, but give them time to develop their growth, that it may be all the stronger for next year. We should take a few inches of the surface soil from over the roots, without unduly disturbing them, replacing the soil taken away with a top-dressing of the following: To a barrow-load of turfy loam add a quarter of a barrow-load of fresh horse-manure, half a gallon of bone-meal and one peck of quicklime, pressing the compost down firmly. You will find that masses of new roots will soon be formed. The next watering you give your trees let it be of clear lime-water (without any sediment), a handful of lime to one gallon of water. As soon as the leaves have fallen in autumn we should replant the trees if not too old. If too old to replant, get well at the roots and apply the above compost freely to them. Be careful in the use of artificial manures.

Shoots of Apple tree for inspection (*Assistance*).—The shoot is very badly infested with the troublesome mussel scale. The trees ought to have been sprayed thoroughly before the buds burst with caustic alkali wash, made by dissolving 2lb. of caustic soda (98 per cent.) and three-quarters of a pound of treacle in ten gallons of water. It will be too late to do this now. It will be necessary to spray the trees after the eggs are hatched (in June), and then a nicotine wash or paraffin emulsion should be used. The tree should be carefully examined in June to discover traces of the living insects.

MISCELLANEOUS.

Diseased Tomato plant (*Waterloo*).—The Tomato plant appears to have been attacked by the canker fungus, Mycosphærella citrullina, which has caused the death of the base of the stem. This fungus is apparently encouraged by the moist, hot conditions obtaining in the house where the plants are grown. It is possible that thorough spraying with Bordeaux mixture might check the spread of the disease.

Tomato culture (*W. R. E.*).—We think the application of permanganate of potash to the soil in which Tomatoes are to be grown would be of no benefit. Sulphate of potash would be the best artificial manure to mix with the soil if it is devoid of potash, but even that is perhaps better applied when the plant is in growth as a liquid manure. Half a pound of superphosphate and half a pound of wood-ashes may be added to the bushel of soil with advantage as a manure for Tomatoes.

Names of plants.—*E. Lindsell.*—Berberis Darwinii. —*D. Culross.*—Both forms of Picea excelsa.——*F. R. Clarke.*—Daphne pontica. Will grow anywhere in sheltered positions among other shrubs.——*Miss Jebb.*—1, Narcissus Tazetta var.; 2, Salvia Grahamii; 3, Mimulus glutinosus.——*Corylus.*—Cestrum rubrum.——*Pan.*—Amaryllis Belladonna. This should be allowed to grow as much as possible. It will dry off naturally in the summer, and if the position is warm and well drained will not require covering at all. If at all cold and wet, covering with a light would be an advantage as soon as the leaves begin to turn yellow. The Pancratium should also be kept growing. It flowers while in leaf, and the foliage will dry off naturally in the autumn, when the plants might be covered to ripen them off.

SOCIETIES.

HAARLEM JUBILEE SHOW.

A GREAT DISPLAY.

THE great Jubilee Show of the National Bulb Growers' Association began at Haarlem on March 23, when it was officially opened by H.R.H. the Prince of the Netherlands. It is held in part of the famous "wood" and close to the region of those historical "bloemistries," of which, perhaps, the most celebrated in their day were the "Hof van Flora" of Van Eeden and the nursery of Voorhelm, a name which, 150 to 200 years ago, was as much connected with the Hyacinth as that of Barr is to-day with the Daffodil. It is bounded on one side by the Kleine Houtweg, in which are the small show grounds of E. H. Krelage and Son, and at No. 12, a larger garden, which is peculiarly interesting as being the exact spot where, 120 years ago, there used to be an old "tea garden," and which before that time was a sort of recreation ground for the Haarlem weavers, who used to grow Tulips and other plants there. The visitor to-day will find it planted with upwards of a quarter of a million different kinds of bulbs.

Not far away, but in an opposite direction, are the celebrated Zwanenburg Nurseries, where there is always something interesting to see. The area covered by the exhibition is, roughly speaking, about one-third of a mile long and about 150 yards wide. It consists of a long central avenue of trees with the old palace of Louis Buonaparte (now the Colonial Museum) at one end, and a pretty temporary building in which is housed a small collection of modern flower paintings at the other. The ground underneath the trees is planted with different kinds of bulbs, such as Hyacinths, Tulips and Narcissi. At the time of my visit the only ones that were in flower were some Crocus; but in a fortnight's time, and thence right on to the closing day, which is May 29, there will be a continuous display of all the best varieties. This alone will be a glorious sight, and if the visitor arranges his visit so as to see one of the special temporary shows, which are to be held on April 15 to 24, May 4 to 12 and May 20 to 22, and also allows himself time to see some of the nursery gardens in the immediate neighbourhood or, say, at Lisse and Hillegom, he will, if he cares for flowers at all, have a most enjoyable holiday and see sights of gorgeous colour that cannot be seen elsewhere.

On the occasion of the opening, the large parterre at the north end of the ground and immediately in front of the old palace and the chief temporary hall was filled with a delightful arrangement of purple, mauve and white Crocí, which was relieved with a few dashes of golden yellow. Great care had been taken to protect the flowers; in fact, when I arrived on the ground, two hours before the Prince was to walk round, the last coverings were being removed. The result quite justified all the care and labour that had been expended, for the width of expanse of purple and mauve was something that appealed to one, not only on account of its novelty, but for its own intrinsic beauty. The cut Box cannon-balls and obelisks and the stone vases and pedestals were placed in exactly the right positions to give the necessary relief to the flat expanse of green. Mr. E. H. Krelage, who is the official head of the committee of management, and to whom my personal thanks are due for the facilities for seeing which were accorded to me, said that the beds in this parterre would be kept bright all the time the show is open, and that Hyacinths, Tulips and herbaceous plants would succeed each other in due rotation. Before we enter the exhibition buildings I must mention one or two interesting side shows in the open. Here was a semi-circle of Irish Yews with the space inside filled with Box trees cut into various shapes, such as cocks, pheasants, peacocks, frogs, geese, &c., and in front, so as to be quite up to date, a scroll with a groundwork of red brick with the famous word "Chantecler" formed in low-clipped Box. In another part there is a small formal garden with the pattern of the beds traced in a similar way. Then there is a rockery which forms one bank beside a long, narrow stretch of water, while in various places in the grounds there are small plantations of ornamental trees and shrubs, all of which are legibly named. There are also a bandstand, a restaurant and several small kiosks, where sundry small articles are offered for sale. As the visitor enters the fine temporary building to the east of the large parterre he sees what is undoubtedly a great feature of the show (see illustration on page 179). Spread out at his feet and occupying the whole of the centre there is a flat lawn, in which are cut geometrical beds filled with perfectly grown Hyacinths. At the corners there are large beds of the beautiful blue Enchantress, while between these at the ends there are club-shaped masses of the delicate pink Lady Derby, and at the sides semi-circular beds of L'Innocence and Yellowhammer, with the rich reddish purple Sir W. Mansfield in a diamond between. In t centre of the lawn there was a vase on a tall pedes filled with a Palm and Asparagus Sprengeri.

The colours were matched to perfection, and many we the encomiums passed on the *tout ensemble*. On eith side of the door was an apse, both of which were fill with beautiful groups of flowering shrubs and out plants. That on the left put up by the Firma Wezelenbu was exceptionally good; half was composed mainly such things as Prunus triloba and P. Malus in variety, a the other of Azaleas and Rhododendrons. Azalea ponti Fanny, A. mollis J. C. van Tol (orange red) a A. Maxwellii (rose) were noticeable among the othe The sides of this hall were lined with flowering shru and trees, among others masses of pale purple Lil and the pure white Marie Legraye, beautiful whi Azalea hybrids, a bank of Rhododendron Cynthi while the space in front had Cinerarias, Deutzias, sing and double Tulips, Polyanthus Narcissi, &c. At t end facing the door was a huge mass of White Pearl a Princess Juliana Rhododendrons, edged with Azal Hinodigin. Princess Juliana is a new hybrid which w raised by the exhibitors, Messrs. C. B. van Ness and So It is a lovely blush pink and is distinguished by t delightful wavy edges of its petals. It is a splendid varie for forcing. In the inner hall the general arrangeme was similar. The large pans of Hyacinths in the cent were well grown, and included many very good kinds, su as La Victoire (long spike, rosy crimson), Ivanhoe (a da sport from King of the Blues), Queen of the Pinks, Et Pineman, &c. There was an interesting group of Darw Tulips from van Meerbeck and Son at one end. contained several little-known varieties, such as Centena (rose, with blush edge), Claude Monet (a greyish purpl Princess Elizabeth and Mattia (two pretty pinks) a Princess Amalia (deep rose).

Lilacs and other flowers from Boskoop occupied t greater part of the side borders, with Cinerarias, Funki &c., in front of them. The strip of grass which ca between the broad walk and this border was broken twenty oblong beds containing single and double Tulip Rose de Holland (white with slight pink edge), Ros perfecta (a double Cottage Maid), Cullinan (a rosy spo from White Hawk), Flamingo (deep rose and blush wi curiously crinkled petals) and President Taft (a long whi with a deep rose edge) were among the newest and be A large round bed at the exit end was filled with Azale Clivias, Solomon's Seal, Arums and Primula obconic There were several very good strains of this variety different parts of the exhibition, distinguished by lar flowers and bright colours; the rose red colour of tho on this round bed was equal to that found in P. chinens Here, too, was also a large mass of the new bedding Tul Brilliant Star. It comes very near Vermilion Brilliant colour and is a remarkable laster. Two exhibits of Azal hybrids by Messrs. Felix and Dykhuis and Messrs. Koster and Son filled the corners of the hall on either si of the exit. Among those of the latter was an almo white Azalea occidentalis hybrid, which is very swe scented. It opens a pale lemon.

The third large hall, which is used for these spec exhibitions, is situated to the left of the entrance gat On this occasion it was for the most part filled wi Hyacinths and Tulips in pots, cut Lilacs and Amaryllis pots. There were also two exhibits which claim spec mention, viz., the large collection of new Freesia hybri (shown by Mr. C. G. van Tubergen, jun.) and a large yell Daffodil called Golden Giant. It has a perianth 5½ inch across and a trumpet 2½ inches long. It is a pleasi shade of soft yellow, and was exhibited by Warnaar Sassenheim. Among the Freesias, L'Apogée (yello Contrast (like an orange-tipped butterfly), Luncino (clear pale rose), Le Rêve (deep mauve) and Dainty (purp mark in the centre of each petal, which gives a strip appearance to the inflorescence) were some of the best.

The exhibits of Hyacinths were most interesting. The were a fair number of new or little-known sorts, such Princess Juliana (palest blush with very large bell Marconi (pink, with a deeper stripe in the middle of ea petal), Orange Brilliant (orange red after Solfaterr Louis Pasteur (pale purple with a mauve centre), Myoso (long even spike with bells of a beautiful pale blu Enchantress (light blue) and Excelsior (large blush). The was an interesting exhibit of double Tulips in pa Several of the varieties were sports from Murillo, *e.g.*, M Vander Hoef (pale double yellow), Schoonoord (a dou white), Harlequin (a striped variety) and Saffrano (b yellow). Two other good things were Electra, a n double Tulip, bright crimson with pink edges, and Gene de Wet, a fine orange sport from Prince of Austria.

There were some handsome vases of cut Lilacs, staged tall glasses and baskets in the centre. The new variet Gloire de Lorraine, with large, pale purple flowers, w very effective. It was shown by D. J. Tas and Son. T Amaryllis of M. Warmenhoven and Sons made a fine a distinct group. At one end we noted Prins Hendrik (r self), Tenor Dister (salmon pink), Minister Asquith (de crimson) and Germania (orange). It only remains to added that the competition was entirely confined to Dut growers; that there were very few novelties in any secti except the Hyacinths; that there were only two sm exhibits of Daffodils—that of Golden Giant previous mentioned and a few pots of seedlings by Mr. Polm Mooy; that the collection of paintings includes a go many by the celebrated A. L. Koster of Haarlem; that t English members of the jury were Messrs. G. H. Cuthbe W. T. Ware, J. Duncan Pearson, G. Gordon, V.M.H Charles Pearson and J. W. McHattie; that it is well remember that there is an excellent service of trains a boats between London and Haarlem; and that a visit the show, especially at the time of a special exhibitio will well repay the trouble entailed. JOSEPH JACOB.

THE GARDEN.

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CONTENTS.

THE PROPOSED INTERNATIONAL HORTICULTURAL EXHIBITION 185
Revival of the Hyacinth 185
NOTES OF THE WEEK 186
CORRESPONDENCE
The suggested exhibition of pot Roses 186
The best twelve Sweet Peas 187
GARDENING OF THE WEEK
For the South and South Midlands .. 187
For the North and North Midlands .. 187
FRUIT GARDEN
On the care and management of orchards.—IV. .. 188
FLOWER GARDEN
Rock walls 188
The fascination of the Crocus 189
A new early Narcissus 190
KITCHEN GARDEN
Vegetable notes .. 190
The culture of Runner Beans .. 190
KITCHEN GARDEN
Sowing Parsnips for flavour 191
GARDENING FOR BEGINNERS
Garden work week by week.. 192
Culture of Lilium auratum in pots .. 192
Planting the Gladiolus outdoors 193
Sowing seeds of Chinese Primulas 193
Planting Tropæolum tuberosum 193
THE TOWN GARDEN .. 193
New plants 194
GREENHOUSE
The potting of Hippeastrums 194
ROSE GARDEN
An Australian analysis of Roses 194
Daffodils at Vincent Square on April 5 .. 195
ANSWERS TO CORRESPONDENTS
Flower garden .. 195
Rose garden 195
Miscellaneous 195
SOCIETIES 196

ILLUSTRATIONS.

Crocus hyemalis variety Foxii 188
"Dry walls" 189, 190
The new early Narcissus Fire Dome 191
Culture of Lilium auratum in pots 192
Planting the Gladiolus 193
Planting Tropæolum tuberosum 193

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE PROPOSED INTERNATIONAL HORTICULTURAL EXHIBITION.

AFTER the lapse of over forty years we are to have an International horticultural exhibition in London in 1912. The importance of such an exhibition cannot be over-estimated. Not only should it prove a great stimulus to trade, but it should also do a very great deal towards the advancement of horticulture, not only in the British Isles, but also in other countries, and create good feeling among the various nations taking part in it.

It must have been gratifying to the promoters of the public meeting held at Vincent Square on the 5th inst., and which was previously announced in our columns, to find it so splendidly supported by the attendance of the leading horticulturists in the country, both trade and private growers being represented. Sir Trevor Lawrence, Bart., K.C.V.O., who presided, was supported on the platform by Lieutenant-Colonel Holford, C.I.E., K.C.V.O., Sir Albert Rollit (chairman of the National Chrysanthemum Society), Mr. Harry J. Veitch, Mr. James Hudson, Mr. J. Gurney Fowler and others. In an excellent speech towards the end of the meeting, Mr. Veitch referred to the fact that he was the only member of the committee of 1866 present.

As Sir Trevor Lawrence said in his opening remarks, we in this country have received the hospitality of horticulturists in Belgium, Holland, Italy, France and Germany since 1866, and in some of these countries the hospitality has been extended to us on more than one occasion. This and the fact that horticulture has made such prodigious strides since the last exhibition he thought were sufficient reasons why we should hold an exhibition in London, and thus show that while other countries have been advancing we have not stood still.

Referring to the financial aspect of the 1866 exhibition, Sir Trevor said there was a profit of £3,500, some of which was allocated to the Gardeners' Royal Benevolent Institution and some of which went to the funds of the Royal Horticultural Society, which was not then in so flourishing a condition as it is at the present time. Although the Council of the Royal Horticultural Society were the prime movers of the project, and they would be pleased to give a substantial donation to the funds, they wished for the exhibition to be carried out on the broadest possible lines, and for that reason they must enlist the sympathies of a large number of ladies and gentlemen who are prominently associated with horticulture throughout the United Kingdom. A list of names whom it was thought might be invited to form a committee was read out, but it must be distinctly understood that this was only suggestive, and, of course, many more names will be added before a general committee is formed. This, we think, will be pleasant news to those who wish to see the exhibition an unqualified success. To ensure this the arrangements must be carried out on the broadest possible lines and the exhibition be thoroughly characteristic of modern horticulture.

It was pleasing to learn from Sir Trevor's remarks that a site was available in London, and we earnestly hope that this will be sufficiently large to enable all those who desire to exhibit to do so under favourable conditions and without the overcrowding that usually seems inseparable from horticultural exhibitions in this country. It augurs well for the exhibition that Mr. Edward White has kindly offered to act as provisional secretary, and the offices for the time being will be at the Horticultural Hall, Vincent Square, Westminster. As Sir Albert Rollit pointed out in an excellent speech, an exhibition of this kind should do much to cement the good friendship of nations, and anything that can be promoted towards this end should, as a duty, be supported by all.

REVIVAL OF THE HYACINTH.

ONE of the most fragrant flowers of spring is the Hyacinth, which seems to have, through the dictates of Fashion, lost hold on those who love their gardens. The Daffodil reigns supreme, and beautiful though the flower is, there should be always, one thinks, some regard for the other spring plants that give fragrance and colour to the garden and greenhouse at this season of the year. These remarks are prompted by an exhibit that was staged by Messrs. Sutton and Sons recently in the hall of the Royal Horticultural Society, and the group then displayed seemed to give the keynote to the revival of the Hyacinth. The flowers were grouped in a way to set forth not only beauty of spike, but beauty of colouring—an object-lesson that should be followed in the home itself. No matter whether one is considering the mixed border or the greenhouse, grouping colours together or setting them forth by themselves brings out the full value of the flowers. That was the reason why the Hyacinth display from Reading was a delight—simply exquisite associations of tints, or the tint by itself, to tell, as it were, its own tale.

Colour schemes are in our thoughts, and nothing can give richer effects than the Hyacinth with its infinite variety of shades—deep blue, red, purple, white and blush. And Messrs. Sutton recognised the great possibilities of the Hyacinth for colour in their grouping, bringing

together in perfect harmony some of the best-known named sorts—pale blue and pink, the former called Enchantress and the latter Jaques; then pink and white, dark blue and cream, and delightful shades of blue. This simple and effective way of staging flowers has a great teaching value, and should inculcate lessons in outdoor gardening, because it shows the principle of grouping. Recently Messrs. Sutton showed the Tulip in the same way, *i.e.*, in masses of colour, and these displayed no set form. The old rigid standard of what should constitute "perfection" has disappeared; we desire the natural beauty of the flower. The Daffodil is queen of the early shows, a position it has gained, if one may so express it, by its grace and usefulness; but the Hyacinth brings the breath of spring. It is a plant for the greenhouse and the garden, dashing in colour, yet representing many tender shades—a flower for all gardens. As we have mentioned before, the crowded mixture is a loss and waste in every way. No doubt it requires some self-restraint on the part of the exhibitor to consent to show the few better articles only, but the same restraint has to be practised in all matters where arrangements of flowers or plants are made with the desire of showing their utmost grace or dignity. Grouping is the correct principle, and it is an intense satisfaction to know that Messrs. Sutton and others are carrying it out with the happiest results, interesting to the exhibitor and good for the show.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 15 to 24.—Haarlem Jubilee Show.

April 19.—Royal Horticultural Society's Exhibition of Flowers, Fruit, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. R. Lloyd Praeger, B.A., B.E., on "The Wild Flowers of the West of Ireland." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster. Devon Daffodil Society's Spring Show at Barnstaple (two days).

April 20.—Royal Horticultural Society's General Examination.

April 21.—Ipswich and East of England Spring Flower Show. Falmouth Spring Flower Show (two days).

April 22.—Devon and Exeter Horticultural Society's Spring Flower Show.

National Vegetable Society.—The treasurer of this society, Mr. George Wythes, V.M.H., has removed from Brentford, and requests that all communications shall be sent to his new address, which is Bovington, Hertfordshire. All who are in any way interested in vegetables should secure a copy of the society's schedule. As we have previously announced, a grand exhibition is to be held in London in September next. The hon. secretary is Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow.

Swanley Horticultural College. The annual report just published is a satisfactory one from every standpoint. Many applications for teachers of gardening, head-gardeners, and companion and other gardeners have been received at the college during the past year, and a number of these have been filled with students from the college. Nine students have started market gardens of their own in England, one in Ireland and two in California.

National Auricula and Primula Society (Midland Section).—The tenth annual report and the schedule of prizes for the eleventh annual show is now being issued by the above society. The balance in hand on the year's working is £4 12s. 7d. as compared with £7 3s. 1d. on that of the previous year. The donors of special prizes have all again offered their assistance in this respect. This year's show, which is to be held, as usual, in the Edgbaston Botanic Gardens, Birmingham, on May 4, will be opened by Miss Violet Vanbrugh. In addition to the usual classes, one has been arranged for children under the age of fifteen. It is hoped by this means to secure new members. The hon. secretary is Mr. Tom J. Stevens, 77, Jakeman Road, Cannon Hill, who will be pleased to furnish full particulars.

Edinburgh Chrysanthemum Show.—The schedules for the annual Chrysanthemum show of the Scottish Horticultural Association, to be held in the Waverley Market, Edinburgh, on November 16, 17 and 18, have just been issued by the association, and may be had on application to the secretary, Mr. A. D. Richardson, 19, Waverley Market, Edinburgh. The prize-list of this great show has evidently been very carefully drawn up after revision, and it includes classes for autumn flowers, fruit and vegetables in addition to the Chrysanthemums. Liberal prizes are provided in all the classes, and the spirited management of the association should ensure a successful show with full competition. A new feature this year will be that the competitive exhibits will be removed on the evening of Friday, November 18, and that on the Saturday there will be not only music, but other attractions. Last year's show led to a loss of about £140, but there is every probability of a great improvement in the takings this time and of a highly successful show being held.

Scottish Horticultural Association.—The annual volume of "Transactions" of the Scottish Horticultural Association for the Session 1909 has just been issued, and its contents will be found highly interesting and useful to Scottish and other horticulturists. It contains the text of the ten papers given to the association during the session, together with the leading address of Mr. G. P. Berry and a condensation of the arguments of Mr. D. Storrie in the debate on the question, "Is Frost Beneficial to the Soil?" The papers will be found useful and interesting, and the debate throws some light upon the arguments on the question of the beneficial effects of frost. A report of the session, minutes of the meetings, awards made, and a considerable amount of other matter are also given, together with abstracts of the accounts, lists of members, &c. From the report we learn that the net membership has increased to 1,342, being a net addition of thirty-eight during the year, this being a considerable improvement over the increase in the former year. Through the loss on the Chrysanthemum show and minor causes, the funds, however, show a decrease, these standing at £736 17s. 9d. against £902 5s. 8d., a decrease of £165 7s. 11d. The syllabus of the meetings for 1910 is appended, and this gives an attractive programme of papers for the various meetings. It may be added that the annual membership is only 2s. 6d., and that the price of the "Transactions" to non-members is 1s.

Dunfermline Children's Bulb Show.—This annual event, which is held under the auspices of the Carnegie Dunfermline Trust, was a pronounced success this year, the number of exhibits being close on 2,000, and there were upwards of 1,000 competitors. These numbers were a considerable increase on those of any former year. Upwards of 33,000 bulbs were supplied at a nominal cost and the soil was given free, while, to encourage new competitors, the flower-pots were also presented to first exhibitors without charge. Much credit is due to Mr. Dunagan, the superintendent of the Dunfermline Parks, for his labours and for the interest he takes in the scheme. The exhibits were all of high quality, and many of them would not have disgraced a professional gardener. Hyacinths were perhaps the finest classes, but Crocuses were very fine and Daffodils were good. Tulips were also finer than they have been, and show that the youthful competitors are now mastering their requirements better than before. The supplementary classes for Primulas, Cinerarias, bulbs and other plants, open to gardeners and others, also included some very fine exhibits, and the Carnegie Trust is to be congratulated on the success of this show.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Quinces.—Having read "E. M.'s" letter in THE GARDEN for March 26, I think it may be of interest to your readers to know that damp ground cannot disagree with Quinces. I have three old trees planted on the bank of a pond in my garden. The water in winter is quite up to their trunks, and their roots are always under water, but they bear an enormous crop of fruit every other autumn, sufficient to supply the household with jam and jelly for two years and to give away to our friends as well. The alternate years the crop is smaller, but enough for flavouring tarts, &c. Our only difficulty is in gathering the fruit, for we have no boat and the boughs hang right down to the water, so we have to make use of a landing net from the bank. The trees are as healthy as can be, and make such a pretty picture in spring when they are covered with their pale pink blossoms. I will try and obtain a photograph this year and send it to THE GARDEN.—G. F. SIDGWICK, *The Old Rectory, Ingatestone.* [We shall be very pleased to receive a photograph of the Quince trees.—ED.]

The Greek Windflower (Anemone blanda).—One is rather sorry that "A. D." has used the name of "alpine Anemones" in referring to A. blanda as seen at Hampton Court Palace (page 138). There is, of course, a true A. alpina, which should have the term of alpine Anemone applied to it alone for convenience. The usual name of A. blanda is the Greek Windflower, or Smooth Anemone; but the former, like many other popular names, is rather inexact, as A. blanda is widely distributed in the Mediterranean region and in Asia Minor. It is probable that the varieties seen at Hampton Court are imported tubers, as this Windflower is rather variable, and there are to be found among the plants flowers from white to deepest blue. The carmine pink, specially noticed by your correspondent, is worth saving, and the responsible parties should take care of it, as this is a colour long desired among the varieties of A. blanda. I have in my garden one of this colour, sent to me by the late Mr. James Allen, and I believe that Mr. W. H. Divers has one at Belvoir of much the same tint. A. blanda is very beautiful indeed, and a few tubers kindly sent to me by Mr. Edward Whittall are giving me beautiful flowers. It is not, however, such a reliable plant as A. apennina, and the latter will flourish and increase where A. blanda will not do well. I believe that A. blanda does better in a stiffer soil than A. apennina, which, by the way, is later. I have had A. blanda in bloom some years in January, but this season it was the end of February almost before the first flowers opened. A. b. scythinica, which has white flowers, blue on the outside, is a beautiful variety. A. b. Florizel is a very fine variety with deep flowers, raised or selected by Mr. James Allen. Seeds should be saved and sown as soon as they are ripe.—S. ARNOTT, *Sunnymead, Dumfries.*

The suggested exhibition of pot Roses.—In THE GARDEN for March 19 "P." has a suggestion respecting an exhibition of pot Roses by the National Rose Society. The idea commends itself to me very strongly, and more than one friend of mine who has, like myself, been a member of the National Rose Society from its foundation are of the same opinion as your correspondent. When we call to mind the beautiful plants and groups brought to the

Temple Show annually, also how frequently one sees a few at other early exhibitions, I think there need be little doubt that a good show could be got together. True, as "P." remarks, the bulk have come from trade growers; but the Rose is quite as easily grown in pots as many other subjects taken up by amateurs. Of late years, too, the advent of Rambler Roses and a far better selection of Teas and their hybrids give a much wider scope than formerly. Classes for pot Roses have been a feature for many years in several provincial shows I am acquainted with, and if an exhibition could be arranged by our energetic committee, it might be the means of bringing the beauties of our national flower before the public during the spring months, and not leave the only show to a few weeks in July, followed by one in autumn. At the time of summer exhibitions pot Roses are over, and I cannot help thinking your correspondent's suggestion is well worth the consideration of the National Rose Society. Of course, cut flowers could also be staged, and many old favourites among the Damask and others might be seen once more. "W. P. Wood" gives an excellent selection of six Roses for general use, but I do not think La France a particularly good variety for wet weather, and, as he includes a good pink in Mme. Abel Chatenay, should have selected Frau Karl Druschki, because no Rose opens in wet weather better than this/or keeps so clean, although it is a spotless white.—A. P.

—— Whatever may be possible to the National Rose Society in promoting a great exhibition of Roses in pots early in the month of May, it is certain that much in relation to making such an exhibition would depend on the Rose trade, and probably the members of that trade would feel that such a show would seriously conflict with their displays in the Temple Gardens, which would be to them, from a trade point of view, of far greater importance; otherwise a special show at the Horticultural Hall such as is suggested should be one of exceptional richness and beauty. But fine specimen Roses in pots are not made in a day or in a year; hence, except where some good provision in the way of plants has already been made, a really fine show could not be held before 1911. But were it proposed to repeat in the production of Rose specimens those marvellous triumphs of Charles Turner and the Pauls of 1866, and which constituted such grand features at the International show of that year, so as to present them at the proposed International exhibition of 1912, they should be at once taken in hand. We never now see such specimens as were then existing, which were indeed cultural triumphs.—D.

The best twelve Sweet Peas.—I have been very interested in the recent letters that have appeared in The Garden. I think it is a very hard task to select a dozen varieties of Sweet Peas that would meet with general approval, and I have also noticed that some of the recent letters on the subject have included novelties which I doubt if anyone who wanted them could obtain at the present moment. I will give a dozen which, in my humble opinion, I do not think can very well be beaten: White, Etta Dyke; primrose, Clara Curtis; lavender, Mrs. C. Foster; rose, Marjorie Willis; pink, Constance Oliver; fancy, Mrs. Routzahn Spencer; magenta, Menie Christie; picotee, Evelyn Hemus; maroon, Prince of Asturias; blue-edged picotee, Mrs. Townsend; crimson, Sunproof Crimson; orange rose, Helen Lewis. For a dozen of the very newest, which I do not think are known well enough for everyone to give an opinion on, I give the following: White, Snowflake; wine colour, Charles Hemus; orange scarlet flake, Mrs. W. J. Unwin; rose, Mary Vipan; lavender, Masterpiece; pink, Mrs. Hugh Dickson; flame colour, Dazzler; orange scarlet, Nancy Perkin; rose pink, Gladys Burt; apricot and pink, Miriam Beaver; picotee, Eric Harvey; bronze, Bronze Paradise.—H. H. Knight, *Seematon, Dawlish, Devon.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

Vines.—When the Grapes in early houses are commencing to colour, the atmosphere must be kept more buoyant, less moisture sprinkled about the floors, and air admitted at every opportunity. At the same time, it is very important that the border should not be allowed to get dry. Examine it with a rod, and if found to be at all dry give a thorough soaking with tepid water. Vines that are coming into flower will require a drier atmosphere, and the night temperature of the house may be raised 5°. As they advance in bloom a slight tap with the hand helps to distribute the pollen. In the case of Muscats a little assistance with a camel-hair brush or rabbit's tail is necessary. If possible to obtain, the pollen from Black Hamburghs is very helpful in fertilising these bunches. The night temperature of the Muscat house should be 65° to 70° when the Vines are flowering.

Peaches and Nectarines.—Use the syringe freely and fumigate occasionally, where possible, to keep the trees clean. Keep all shoots tied in before they get too far advanced.

Plants Under Glass.

Poinsettias that have been resting in a cool house should be placed in a warmer temperature to induce them to make growth for cuttings.

Begonia Gloire de Lorraine.—When large specimen plants are required, the growths should be left on and the plants shaken out and repotted. A suitable compost consists of one-third loam, one-third leaf-soil and one-third cow manure, with a good sprinkling of sharp sand added. These plants, if kept growing in a temperature of 65° through the season, make very fine specimens for conservatory decorations next winter. They are also excellent subjects for basket-work.

Kitchen Garden.

Onions.—Providing those plants that were raised under glass are quite hardened off, they should be planted out at once. The ground they are to occupy should have been dug some time previously and had a little bone-meal added. Give a dressing of soot, and make the ground firm by treading. Plant in rows 18 inches apart and 12 inches between the plants.

Leeks.—These may also be planted, and if exhibition roots are required trenches are best for them. Throw out a trench about 20 inches wide and the depth of the spade. Give a dressing of rotten manure and fork it in. Put the plants in a single row, about 12 inches apart, and give them a watering.

Hardy Fruit Garden.

Peaches and Nectarines.—Disbudding is the next operation to demand attention, and as soon as the shoots are large enough a start may be made. The work should be done gradually and extend over a considerable period, going over the trees every few days. An experienced man should be allotted to this task, for much damage can soon be done by one who does not understand the work. First, a few of the front and back shoots should be rubbed out, then more, following with the side shoots till the work is completed. The shoot nearest the base of the bearing growth is the one to look after and the one to depend upon to provide next year's crop. A growth on the top side of the shoot is the best, where possible, to retain. The leader, or shoot at the extreme end of the growth, should be left. E. C. Pooley.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

Broccoli.—In most Northern gardens it is useless to attempt to grow winter Broccoli, as not once in ten years would it be possible to cut this useful vegetable in December, January and February. Even the earlier spring sorts are a very precarious crop at all times. It is best, therefore, to restrict our Broccoli to late spring varieties. Now is a good time to sow these, and after many years' experience with the majority of the varieties to be found offered in the different seed-lists, I find that only about three are worth troubling with in late, cold districts. The surest is Methven's June, which is a really good table sort, besides being the hardiest of all that have come under my notice. Sutton's Late Queen is a fine sort, being of nice dwarf habit, and the curd is nearly as white as good Cauliflower. Lauder's Late is the other that I have found fairly reliable.

Asparagus Kale.—This is a very hardy early spring vegetable which is seldom seen in gardens. It comes in when vegetables are scarce, and is one of the most economical of green crops. Only a small breadth should be planted, as it is important to keep the Kale well cut, or it will get coarse and stringy. Some prefer to use the leaves only; but most people find the tender shoots delicious if cooked like Asparagus, and use these in preference to the leaves. Sow the seed now, and plant out when ready on only moderately rich ground.

Carrots.—The main crop of this very useful vegetable should now be sown. Unfortunately, the Carrot is by no means a certain crop in most gardens. While the wireworm attacks this crop and does much damage, it is the grub of the Carrot fly that is most to be feared. Many are the "sure" cures for this trouble, but up to the present time I have failed to find one that is certain every time. If properly applied, one of the soil insecticides should be found useful.

Salsify and Scorzonera.—Sow in drills on deeply worked ground. It is not everyone who cares for these two winter roots, which is a pity, as they make a nice change at a time when it is often difficult to give variety.

Fruit Garden.

Strawberries.—A slight dressing of some good fertiliser scattered between the rows and then well hoed in will greatly help the plants to send up strong flower-spikes. Even where there is no need for any stimulant, a thorough breaking up of the surface with the hoe or digging-fork is very beneficial, and will also keep down weeds.

Any arrears in nailing or tying of wall trees must now be overtaken, or much damage will be done. The protection of the flowers of Peach, Apricot and Plum trees must be attended to as necessity arises.

Rock Garden.

Planting.—Unless the plants are in pots, it is getting just late enough now for this work. Still, if the new plants are well attended to with water, there is no reason why planting should not be undertaken at the present time. Frequent systematic weeding and general attention to tidiness are imperative in this department, for a neglected rock garden is hideous indeed. If time permits, it is a good plan to pick all the seed-pods from Scillas, Chionodoxas and Winter Aconites, as they have a nasty trick of distributing their ripe seeds all over and among the other choice plants, which next year will cause a great amount of trouble. While plants are in flower is the best time to mark those that are to be dispensed with, as it is so difficult to remember at the proper time just what it was intended to dig out. Also, any particular favourites that it may be desirable to duplicate should be noted down, so that they may not be forgotten at propagating-time. C. Blair.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE FRUIT GARDEN.

ON THE CARE AND MANAGEMENT OF ORCHARDS.—IV.

(Continued from page 126.)

BEFORE concluding my remarks on the care and management of young orchard fruit trees after planting, I should like to say that one of the greatest helps to the well-being of the trees afterwards is to bind the whole of their stems with hay-bands, coiling them neatly and firmly round so that no portion of the bark is exposed for the time being. These bands are easily and cheaply made, and anyone can put them on. Naturally, after the injury caused to the roots by the lifting and replanting of the trees, sap movement in spring is more or less disorganised and growth thereby retarded. Should the spring prove hot and dry after the trees are planted, the bark of the trees (especially when they happen to be standard trees) through the retarded activity of the sap becomes more or less dry, and its tissues in consequence warped; and should these conditions prevail for a considerable time, there would be serious danger of the young trees being permanently injured. The banding of the stems as recommended will effectually prevent this, especially if a little water is occasionally poured over the bands.

THE RENOVATION OF OLD AND PARTLY WORN-OUT ORCHARD TREES.

One of the most interesting and instructive facts in relation to the management of trees which experience teaches is the marvellous recuperative power possessed by old ones. I know of an old giant Cedar of Lebanon, certainly not far short of 100 years old, which some years since showed unmistakable traces of decay by the tips of its branches dying off wholesale, a sure sign of a Cedar tree going wrong. An expert in tree management was consulted. He advised that a trench 3 feet deep and 2 feet wide should be cut round it at a slightly less distance from its stem than the spread of its branches extended. This was done and the trench refilled with the best fibrous turfy loam procurable, adding to each cartload of turf a quarter of a load of well-decayed farmyard manure and a bushel of bone-dust. The result of this treatment is that to-day that tree is restored to a perfect condition of health. Take, again, the old Hampton Court Vine (now about 150 years old), to which was given, a few years since, a new border of the best Vine soil. The result in this case is equally patent and favourable. Bunches of Grapes cut from this old Vine were exhibited in London last year of so high an excellence in every respect that the produce from few young Vines could approach and none excel. After two such striking cases of recuperation in old trees, who can say but that, under favourable conditions and good management, such old trees would, like the song of "The Brook," "go on for ever"?

It is the same with old, seemingly worn-out orchard trees, whether of Apple, Pear, Plum or Cherry, so long as their debilitated condition is not the result of advanced decay in the trunk or main branches, when the chance of recuperation would, of course, be hopeless.

The cause of the worn-out and profitless condition of so many trees in our orchards may, I think, be justly attributed to neglect and starvation, consequent upon the exhaustion of the soil by continuous growth, and cropping of the trees for a series of years without the application of restoratives to the soil. Let me urge those who may possess such trees (if they attach any value to them) to clear the ground over their roots as far as the branches extend of weeds, grass or anything else by which it may be encumbered without loss of time. Give the ground a sprinkling of bone-meal (two good handfuls to the square yard), and fork lightly in, adding afterwards a dressing of well-decayed farmyard manure 4 inches deep over the same ground, giving the trees, if possible, a good soaking of water over the manure, thereby washing down some of its virtues for the immediate benefit of the trees. In the case of valuable and cherished old trees it would pay well in the long run to treat them as the old Cedar and the old Vine were treated, as previously mentioned.

DRYNESS AT THE ROOT.

This cause alone is responsible for more damage to old trees than many people are aware of, especially when the trees are growing on light or moderately light, well-drained soil. In such cases it is an excellent plan to form a ridge of soil or clay about 7 inches or 8 inches high all round the tree at a distance from the stem of from 6 feet to 8 feet, filling the receptacle thus formed several times over with water in order to thoroughly saturate all the roots. It will, no doubt, be pleaded by many owners of orchards that they have not the time to devote to the work in the summer when the ground is dry. It so happens, however, that the winter-time is really the best time to give the trees this heavy and thorough watering. The dressing of rotten manure recommended to be applied to the surface of the so over the roots would afterwards serve the pu pose of conserving the moisture in the soil durin the summer.

OWEN THOMAS.

CROCUS HYEMALIS VARIETY FOXII. (*See page 189.*)

THE FLOWER GARDEN

ROCK WALLS

(COMMONLY KNOWN AS "DRY WALLS").

IN every type of garden there is generall abundant scope for the expression of i dividual taste, yet this latitude is nev greater than in gardens where rock an alpine plants are cultivated, for, apa from the orthodox rock garden, endle opportunities present themselves to the enth siast wherein the charming individuality, it ma be, of some capricious or even commo place subject will acquire a fres interest from meeting it under le stereotyped conditions. In this respe the growing interest in dry walls cal for attention, for, while these embod the principles of rock gardens, ofte indeed, in charming miniature, al presenting characters entirely the own, their ultimate success will, as matter of course, largely depend upo the knowledge and taste of the perso who designs or plants them.

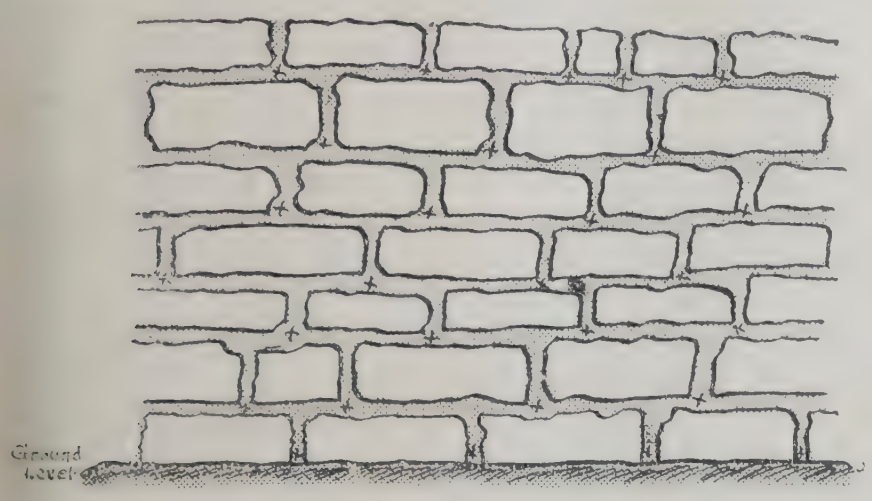
I would strongly insist upon carefu study being given to the positio where dry walling is intended to b introduced, as it is difficult to ha monise it with formal or geometric features; further, the method an materials employed in this form building are quite the opposite that present in "finished" architectur

Simplicity is a safe principle in dr wall construction, and it is wis economy to use the best material o can command. Stone may always b recommended, as, apart from its decor tive effect, in itself it favours th maximum development of plan growth. The portions should be use as they arrive from the quarry, irr gular in shape and size, and varyin in thickness from 2 inches to 6 inche

The practical work in building dr walls is comparatively simple, th main principles of which I hav attempted to make clear in the accom panying diagrams. Fig. 1 shows th face of the wall as it appears whe finished, the plants being indicated b a cross. The method of "bonding the stones must also be observed, as thi renders the wall more permanent Fig. 2 shows the way in which th face of the wall inclines backward while the individual stones dip in th same direction. To proceed in build ing, the ground-line is first marked ou and made quite firm by thorough ramming. Th largest stones are then placed in position, keepin the joints fairly close when the stone is in smal pieces, while a 3-inch or 4-inch joint will no endanger the structure when the stone is of goo size. Whenever a course is laid, the joints an crevices behind are filled with good soil and th whole made perfectly firm. The first layer of ston is then covered to the depth of an inch with soil and the second course laid in a similar manner t that already described, each subsequent cours being similarly treated until the requisite heigh is gained. The inclination or "batter" given t the wall is readily measured by driving in on or more stakes perpendicular with the front pro jection of the bottom course; then, by placing set-square to these stakes at intervals of a foot one can measure to a nicety the inclinatio obtained. The brick wall illustrated is buil with 1-inch batter to every foot of heigh

obtained, and while the results have been quite good, yet, regarded from the standpoint of the practical cultivator, I put this as the extreme minimum, and would double this batter when at all possible.

The planting of dry walls should take place concurrently with building, as this admits of larger plants being employed, and, the roots being



I.—ELEVATION OF A "DRY WALL." SHADED PORTION IS SOIL. POSITIONS MARKED BY A CROSS ARE FOR PLANTS.

spread out into the soil behind, lay hold and the plants become established in a very short time. It is also a good system to have a rough plan prepared of the main groupings contemplated, particularly with reference to the colours, as then mistakes are less likely to occur; moreover, a well-thought-out system of planting, in which due recognition is given to the diversity of plant growth, is always more satisfactory as a composition than that obtained by haphazard planting. Rooted cuttings and seedlings are the most suitable methods for planting dry walls already in existence, while a large number of plants may be introduced by means of seed.

The best time to make and plant a dry wall is during early spring, as then growth is most active, and the plants having a full season before them become thoroughly established and capable of withstanding the utmost rigours of winter. It is always in terrace gardens where dry walls reach their highest; in such they may be interpolated so as to overcome the most awkward slope. There is also the question of suitable plants for dry walls; but as this naturally divides itself into subjects that are most effective in sunny walls and those succeeding best in shade, the subject really merits treating somewhat in detail, and this I hope to do later.

Thomas Smith.

Walmsgate Gardens, Louth.

THE FASCINATION OF THE CROCUS.

Autumn Croci.

(Continued from page 177.)

Next we must deal with a group of species from Spain or thereabouts. Nudiflorus is plentiful both sides of the Pyrenees; in fact, I believe it would be hard to collect plants from certain districts round Bayonne without introducing unintentionally small corms of nudiflorus. It is a fine rich purple species, and not very often seen in English gardens, though it was at one time abundantly naturalised near Nottingham, and seems a very good doer; so any Crocus corms found by collectors of Daffodils or Hepaticas in Pyrenean hunting grounds are worth sending home.

I have never seen the white form of either this or the closely allied asturicus, but both have been found wild. Asturicus is smaller than nudiflorus, does not produce the peculiar underground runners by which nudiflorus propagates, and can also be distinguished by frequently showing the tips of its leaves at flowering-time, and lacking the deep purple outline of the lower half of the outer segments, which I find very constant in nudiflorus. The variety known as atropurpureus is the best form, but even this is not so handsome as nudiflorus.

Salzmanni is a robust fellow, producing plenty of leaves with its flowers, increases rapidly and flowers freely if lifted and replanted every three years; yet with all these virtues to its credit I do not care much for it. It is not of good substance, being thin and reminding one of a certain cheap ribbon that one's female relations refer to as sarsenet, and its colour is a washy lilac. It makes a pleasant show in a good clump in the rock garden, but is not a species to take in the hand and enjoy at close quarters. It is the only autumnal Crocus found both in Europe and Africa, being common near Tangier.

Clusii is mainly a Portuguese species and closely resembles asturicus in appearance, but has well-developed leaves when flowering, and is the only one of this group of Western Croci with a reticulated corm tunic. It always reminds me of a conflict I had with my conscience. A right good friend of mine, with an artist's and, moreover, a gardener's eye for a plant, was going to Cintra, so I told him of the habitat of Crocus Clusii near by, and begged him to find me the white form of it which I had never then heard of, but strongly suspected might exist. He later sent me the purple form, writing that it was very plentiful, but so far no white had appeared, and if anyone else had bidden him look for it he would have felt certain it did not exist. However, at my word he would hunt again. Then my conscience began, and I was about to write and confess when a blessed post-card informed me the pure white treasures had been found and were to be brought to me in a pot. Now I fear I glory in my wickedness.

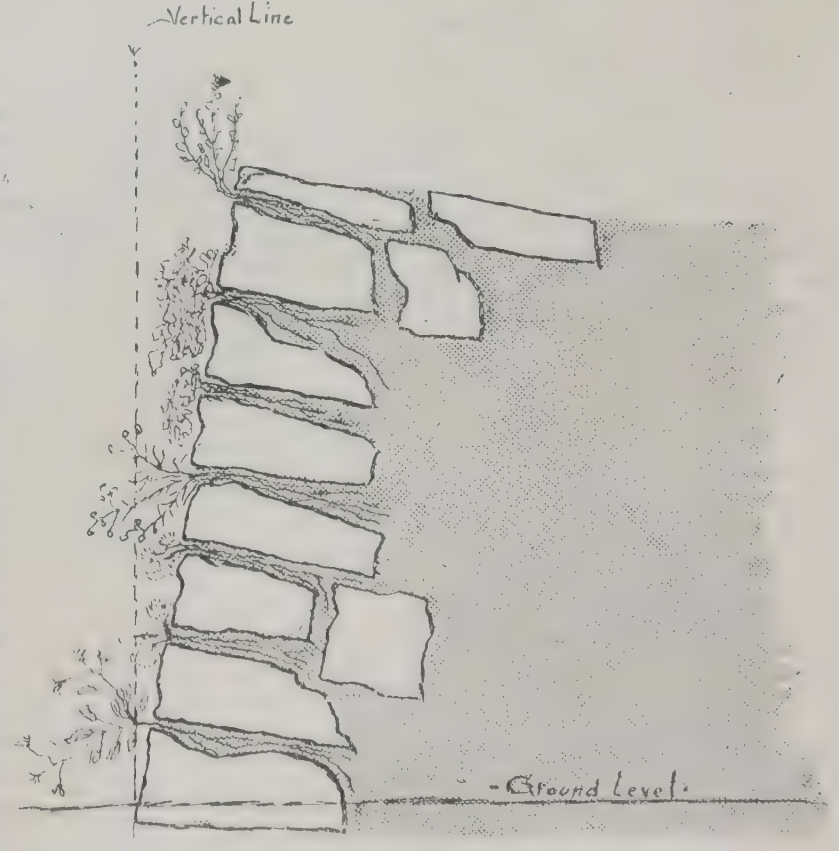
Serotinus is a mysterious creature. It was once a fairly common species in gardens, but now has almost disappeared. Its native home is quite unknown, for Maw states that all the herbarium specimens from wild sources that he examined proved to be either asturicus, Clusii or nudiflorus. Dean Herbert wrote of it in his monograph of the genus: "This is a hardy species, but apt to flower with us in November when sunshine is scarce." Salisbury, in the "Paradisus Londinensis" of 1805, gives a charming figure of it and speaks of it as "the latest of the autumnal Crocusses," and "flowering close under a south wall till the beginning of December." I cannot make it comfortable here, however I try. I hope someone who reads this will write and tell me it is a weed with him, and teach me how to grow so desirable a treasure.

Medius, from the French and Italian Riviera, is yet quite hardy here. It wears the smartest feather in its bonnet of all, and is thereby easily recognised, after the manner of the newly introduced partner at a dance entered on the mere man's programme as "white, blue bows"; by which I mean the branches of its stigma are cut up into fine divisions and are of a glorious deep scarlet. It also has some delicate lines of deep purple in the throat which form a star, somewhat after the manner of sativus. A most beautiful white form has appeared lately in Mr. A. C. Bartholomew's interesting and richly stored garden at Reading. The scarlet feather and purple star on the white ground make it one of the loveliest of Croci. It gained its name from being considered a link between nudiflorus and sativus.

Sativus is interesting as the Crocus that produces the saffron of commerce, and was once largely cultivated at Saffron Walden. When I think of the number of stigmas it must have taken to weigh a pound, and of the shyness with which this Crocus flowers in our climate, I marvel how it could ever have paid to grow it.

The saffron-producing cultivated form is perfectly sterile, but increases quickly by offsets. It requires a very sunny, well-drained position to produce flowers, and even then is not a free bloomer. They are very beautiful, with long, undivided stigmata of crimson-scarlet, but, as once opened they do not close as thoroughly as the flowers of other species, they soon get damaged by dew or rain. The small-flowered variety from Greece, var. cartwrightianus, is a free bloomer and very pretty, and varies with pale and white forms. Var. Thomassii, from Italy, is a handsome form and is giving me some nicely striped seedlings. Var. Pallasii, the more Eastern form of this last, also varies with white and striped forms. Var. Haussknechtii is the freest bloomer of all the forms, but is rather thin in texture and pale in colour.

Hadriaticus is closely related to sativus, but is generally pure white and is more inclined to have a certain amount of yellow in the throat. The variety peloponnesiacus generally flowers before the appearance of the leaves. Longiflorus is very fragrant, and the name of odorus has been given it and would be very well applied. It is of a charming rosy shade of lilac, with rich orange throat, and flowers very freely and increases rapidly, so that a year or two after planting a few bulbs will produce a dense mass of lovely flowers from the end of October well into November. I strongly recommend it for sheltered nooks in the rock garden. The Malta



2.—SECTION SHOWING THE PRINCIPLE OF ARRANGING STONES IN "DRY WALLS." NOTE HOW THE STONES DIP BACKWARDS AND THE "FACE" IS PUSHED BACK FROM THE VERTICAL.

form is richly feathered with purple and known as var. melitensis, and there is a pale form with a varying amount of purple markings outside near the throat known as var. Wilhelmi. It is not so robust as the type.

Cancellatus is a fine species and very variable, the Western forms from Greece having a white ground variously striped with purple; those from further East mostly have a lilac ground and are known as var. cilicicus. It is common in Palestine, and is one of the species of which the corms are gathered and sold for food in the markets of Damascus, under the name of Hursinein, at about twopence halfpenny a pint. It is said that C. Gaillardotii is often mixed with it, but so far our efforts to get corms of this rarer species sent heme for cultivation have failed. They could easily be distinguished, as cancellatus has a very coarsely reticulated tunic, and that of Gaillardotii is of fine, tow-like texture, with remarkably long pointed brown sheaths growing from the top of the corm. Here is a useful work for an intelligent traveller should he find himself in Damascus in the season for Hursinein, which I suppose would be when the corms have ripened, and therefore from April perhaps until the autumn growth begins. Although it has a small flower, I believe it would prove a pretty addition to our gardens. It is very plentiful round Bethlehem, I believe, and so would most probably have beautified the meadows at the first Christmas if tradition is correct in placing it in December.

Waltham Cross. E. AUGUSTUS BOWLES.

(To be continued.)

A NEW EARLY NARCISSUS.

MESSRS. BARR AND SONS, King Street, Covent Garden, send us blooms of an excellent early Daffodil belonging to the incomparabilis section. This has a large, spreading cup 1½ inches in diameter, the colour of which is very bright orange scarlet. The perianth segments are of medium width and of rich primrose colour. At the time the flowers were photographed they had been cut ten days and the perianth had commenced to shrivel, but the broad character of the cup is shown. Messrs. Barr write: "We send you herewith a very early variety of Daffodil called Fire Dome. It has been flowering out of doors in Wiltshire for more than a week. As you will observe, it is a Giant Incomparabilis, and has one of the largest and showiest crowns of any Daffodil we know. It is far superior to Will Scarlett. The flowers we send you have been picked for more than a week."

3.—A "DRY WALL" BUILT FIVE YEARS AGO. (*See page 188.*)

Caspius, from the south-western shore of the Caspian, is a lovely white species, but varying with a rosy pink tint on some flowers. I separated from the collected corms some that bore lilac flowers and that I call var. lilacinus. It has settled down to our climate better than I at first suspected it would, seeing it came from so far South. It is perhaps at its best in a cold frame, but has done very well here in the rock garden. It was only introduced to cultivation in 1902. An account of it will be found in the *Gardeners' Chronicle* for December 26, 1903, page 443, and another in *Flora and Sylva*, Vol. III., page 115. There are other beautiful species that flower in autumn that are too tender or rare to be suitable for long description in these notes. Of such is hyemalis var. Foxii, alas (see page 188)! for if only we could get it to grow and produce its sweet-scented flowers, with curious black anthers, throughout December in the open ground, it would indeed be a treasure. The type form, with yellow anthers, has not been seen in cultivation since Mr. Maw had it sent to him from Palestine, and kind friends who have looked for it out there for me have only found the black-anthered variety.

THE KITCHEN GARDEN.

VEGETABLE NOTES.

PEAS AND ONIONS IN BOXES.—Strong, sturdy plants of Peas raised from seeds sown in shallow boxes in January and February, if planted out in thoroughly prepared soil now, will yield pickings several days in advance of spring sowings made out of doors as early as it was possible to get the seeds in. The planting out must be carefully done so as not to seriously injure the roots, and the soil must be made firm about them. As soon as the work is done, put twiggy sticks to the plants as well for protection as for support. Onions, too, must be dealt with, and it is surely unnecessary to emphasise the importance of firm planting on deep, thoroughly worked, rich soil. These plants will give larger bulbs than those from seeds sown out of doors; but a greater advantage still is that they h some immunity from the attacks of the On fly. Unfortunately, it cannot be said that t will entirely escape, but if the grower takes p ventive measures in addition to early raising should not lose many plants. In some distri this is a terrible pest.

PLANTING POTATOES.—This work should pushed on with all speed, and the sooner, in majority of gardens, that it can be completed better. Those who are so fortunate as to h an abundant supply of wood-ashes might much worse than put a layer in each drill bef the sets are placed in position. In light s the depth of planting may be 6 inches, but those of a stronger nature 4 inches will suffi and in both instances earthing will have to done. For culture on the flat the sets should a little deeper; but the system, although it fi marked favour in some districts where the soi extremely light and sandy, is not recommend for general adoption, since the results are likely to be very satisfactory.

CELERY.—The earliest-sown seeds will ha germinated and the plants will now be big a strong enough for pricking out, and as soon as th reach this stage they should have attention, as delays are prejudicial to ultimate success. Provid good soil containing plenty of flaky, sweet le mould or refuse manure, since the roots will cli closely to these materials and enable the grow to lift the plants later on with a splendid b of soil attached to the roots. More seeds shou be sown for later plants. Dustings with mixture of soot and wood-ashes from the ea stages onwards will do much good.

SEED-SOWING.—Seeds of many kinds of ve tables will have to be sown during the next th or four weeks; but in this paragraph it is p posed to call special attention to one class on the Winter Greens. It is essential to our g health that we shall have fresh green food the winter, and we look to Savoys, Bruss Sprouts, Kales and Broccoli to supply material, and it is necessary to lay the foun tion now. A bed must be made up on a c venient border, and into the top soil should incorporated a little leaf-mould or refuse manu then cut shallow drills and distribute the se thinly and evenly. Commence thinning out im diately the seedlings are large enough to hand since sturdy progress is imperative; and if the c ditions are not favourable for permanent plant when the young plants are ready, move them to another bed rather than allow them to beco in the slightest degree crowded. This m sound a lot of trouble, but the crop is so valua that the step is fully justified. Early sowing these plants are commonly made, but they neither necessary nor desirable in the sm gardens of cottagers and the majority amateurs.

EARLY LEEKS.—This splendid winter ve table appears to be steadily growing in gen esteem, but it is not cultivated or consumed half the quantities that it ought to be consid ing its undoubted excellence for use in winter. Those who desire early produce sho plant out in trenches as soon as possible. large plants manure must be put in in the s manner as is done for Celery, but for ordin size it will amply suffice to plant on dee worked, generously enriched ground. M growers simply make a hole 10 inches or so depth with a blunt-ended dibber and d in the plant; immediately afterwards the h is filled with water, and no further attent is given beyond keeping the bed scrupulou clean and giving water now and again in weather. H. J

THE CULTURE OF RUNNER BEA

THIS vegetable when produced at its best is of, or, with a great many, the most popular our summer crops, and a well-prepared dish the young succulent Beans is eagerly await

therefore it behoves the grower to aim at producing these at the earliest possible date and under the best conditions. A well-kept row of Runner Beans is, perhaps, the most beautiful of all crops in a garden, and here let me emphasise the fact that one row, or a similar quantity, perhaps, if grown in clumps (the latter a very suitable method for small gardens), will produce, if liberally treated and cared for, as much produce as three times the quantity of plants grown in a haphazard manner.

Preparation of the Ground.

No vegetable responds to deep cultivation more readily; therefore do the best with the means at your disposal to well prepare and enrich the soil for this crop. I have found the best way is to prepare trenches as one would do for Celery, and these should be got out in the early spring months, when the ground is in a suitable condition for this work. When it has been settled where the crop is to be grown, a trench 2 feet wide and the same depth should be taken out, the bottom well forked up, and then refilled to within a third of the top with well-decayed farmyard manure and allowed to remain until the time arrives for seed-sowing or planting, as I shall particularly recommend later. Before leaving this part of the subject, I would like to mention one point worth considering where more than one row is grown, and that is to allow ample room between them, for not only is this conducive to the well-being of the plants, but it also allows of another crop being grown between to benefit from the shade afforded by their extreme height.

Raising the Plants.

For several reasons I would advocate the sowing of the seed, especially for an early crop, in boxes, and this is quite a simple course to adopt where the convenience of a cold frame is at hand. By this means an earlier picking is assured. The newly germinated plants, while enjoying the full amount of air and light whenever the weather is genial, may also be protected from cutting winds and frosts and the ravages of slugs, which frequently play sad havoc with them when sown in the open ground. Sow the seed about the end of April, and allow a distance of 2 inches to 3 inches between the seeds. These must germinate under quite normal conditions and be grown on as sturdily as possible, removing the lights entirely whenever the weather allows. Place the plants as near to the glass as possible to prevent them becoming drawn. About the first week in June these should be thoroughly fit, if previously well hardened, for planting out. Well cover the manure with the soil taken out, which will have become well pulverised in the meantime, and plant with a trowel a double row, allowing a foot between the plants and the same distance between the rows. When completed, as a preventive place a ring of finely sifted sharp cinder-ashes round each plant. For sowing out of doors, the last week in May I would suggest as a guide, a little earlier or later according to position and locality. Cover the manure in the same manner as advised for planting out, and make the soil as fine and even in surface as possible. Sow in double rows and allow from 6 inches to 8 inches between the seeds, and adopt the same method for protecting the plants. Give occasional dustings of soot and lime when the foliage is moist in the early morning or evening.

Staking.

This is one of the most important factors in the culture of Runner Beans, and upon which much of the after-success depends; therefore place strong supports to enable them to make uninterrupted growth and be positively safe from being blown about. New stakes should be used, and those in the nature of Pea-sticks, but longer. Thrust them well into the ground with occasional stout poles, and two or three rows of thick tar cord; these will make effective and thoroughly strong supports. Stake the rows as soon as planted, or when the seedlings reach that stage with open-sown seeds.

At the time of planting, or when the seedlings appear, if the weather be dry a good watering with clear water and a sprinkling each evening if the weather is warm will greatly assist a quick growth. Difficulty is sometimes experienced in getting the earliest flowers to set properly. This can be greatly assisted if the plants are sprayed over in the forenoon with tepid water from a syringe. By this I mean in the form of dew, and not heavy to swamp the flowers. A mulching of long litter or other material, especially if applied in hot and dry weather after a good watering, will be found most helpful, and when producing pods freely a good watering of properly diluted manure-water will assist the plants; but never use this when the ground is dry, or more harm than good will result as well as the waste of good material. During showery weather a sprinkling of artificial manure, as directed by the vendors, will be found nutritious to the plants. Pick the pods as soon as these are ready and carefully go over the rows. Remove all old Beans unless particularly wanted for seed. As the growths reach the top of the sticks these should be stopped; this will induce them to break back and produce a greater yield. If grown under the best conditions it is surprising what a quantity of material these will produce, as well as making them less susceptible to the attack of insect pests. Dryness at the roots is one of the chief causes of this, and the best and only reliable means of defeating this in a dry season is deep cultivation. Though this at the time may appear to some to entail a great amount of labour, it is well repaid, not only by the one but by subsequent crops, as with a deep root-run and protection by a good mulch from the sun there is more sustaining power than all the artificial waterings on a shallow, hungry soil.

THE NEW EARLY NARCISSUS FIRE DOME. (*See page 190.*)
(*The flowers had been cut ten days when photographed, but the broad cup is well shown.*)

Varieties.

This is an important point to consider, for unless a good variety is grown the best results cannot be expected. There are many excellent sorts I could recommend of both scarlet and white flowering varieties, and a few of each in however small a garden make a pleasing contrast. Of scarlet varieties I would mention Scarlet Emperor, renowned for its cropping powers and length and shape of Bean, so valuable for exhibition purposes; Prizewinner though older, a most reliable and free variety of great merit; and Hackwood Success, all desirable sorts. White-flowering varieties are Jubilee, which produces large pods; and another I have been successful in raising, and which will shortly be placed upon the market, is White Emperor, a counterpart with the one exception of Scarlet Emperor.

Edwin Beckett.
Aldenham House Gardens.

SOWING PARSNIPS FOR FLAVOUR.

The usual advice is to sow Parsnips as early in the year as possible—if the ground permits in February—and to get large, long, straight roots it is advisable to sow early. On the other hand, the Parsnip is not a great favourite with many, as they object to the strong or peculiar flavour of the root. Much of this can be remedied by later sowings and by leaving the roots in their growing quarters, lifting them as required for use. The best-flavoured roots I have grown were from late sowings, and in the first place were the result of the land not being available till June. The seed sown early in June gave us splendid roots as regards quality, small, certainly, when compared with the huge roots a yard long one sees at exhibitions, but large enough for all purposes. Small roots have an absence of hard core, which is the strong-flavoured portion and is not so easily digested.

G. W. B.

GARDENING FOR BEGINNERS.

HOW TO GROW LILIES IN POTS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—The bulb-beds at this season usually require some attention, and just now it will, in many cases, be found necessary to give the flower-spikes of Hyacinths some support. These are usually very heavy, and when soaked with rain quickly fall over and present a soiled and bruised appearance. Short stakes, about 1 foot long, are the best supports, and these should be painted a dull green colour. Each one should be thrust well into the soil, but so that it does not injure the bulb. When in position the top of the stake should be just below the bottom flowers on the spike. Two ties with green raffia will complete the work. If care is taken to place the stakes at the back of the stems and neat ties are made, the supports will scarcely be noticeable. Beds of Tulips, Daffodils and other spring flowering plants should be kept free from weeds, and where it can be done without injuring or soiling the flowers, the Dutch hoe should be run between the plants once a week. This will greatly assist growth, and at the same time improve the appearance of the beds.

Vegetable Garden.—The present is a good time to sow seeds of Vegetable Marrows and Ridge Cucumbers under glass to provide plants for placing outside about the middle of May. A cool greenhouse or even a cold frame may be utilised for raising the plants in. A good plan is to well drain the required number of 3-inch pots, then fill them with a soil mixture composed of good loam two parts, leaf-soil or well-decayed, flaky manure one part, and sand one part, the whole to be well mixed and passed through a half-inch mesh sieve. One seed should be placed in the centre of each pot and covered with half an inch of the soil. It is well to place the seeds with the sharpest end pointing downwards. After watering with a fine-rosed can, stand the pots in the greenhouse or frame, and if they can be covered with panes of glass or sheets of brown paper germination will be materially assisted. These aids, however, must be removed as soon as the seedlings appear above the soil. If grown on under cool conditions and kept near the glass, the young plants ought not to require moving on into larger pots, and should be sturdy specimens by planting-out-time, when they will probably be referred to again.

Greenhouses and Frames.—Many of the Cyclamen which have given us their flowers so freely during the past winter have now finished their display, and their owners must decide whether or not the roots shall be retained for flowering another year. Many growers like to have fresh seedlings each year, but the old plants can, with care, be successfully grown for a number of years. When it is decided to keep them, the supplies of water must be gradually diminished, and in the course of a few weeks the foliage will assume a yellow hue and subsequently fall away. The pots may then be laid on their sides under the stage in the cool greenhouse, taking care to prevent injury by dripping water, or in a cold frame, where they may remain until the end of July or early in August. At that time new growth will commence, and the roots will need to be shaken out of the old soil and repotted ready for flowering during the winter. It is well to make sure that insect pests are not lurking in the crowns of the plants at the time they are stored away, and to obviate this it is advisable to give them a spraying with a good nicotine insecticide.

Fruit Garden.—At this season we sometimes get a week or two of warm, dry weather, and should this occur it is well to keep an eye on newly planted trees, and particularly those that were planted only a few weeks ago. These latter will be greatly assisted by light overhead syringings daily. Trees that are growing against walls also frequently suffer from drought at this time, as it is possible in some cases that very little rain is able to reach the roots owing to surrounding buildings or other obstacles. Where this is the case, the first spell of warm weather, coupled with active growth, makes itself felt to the detriment of the tree or trees. In all such instances, or wherever there is the least doubt about the matter, it is safe to give a thorough soaking with water, repeating it at an interval of two or three days. A. A.

1.—METHOD OF ADJUSTING A BULB OF LILIUM AURATUM IN A POT.

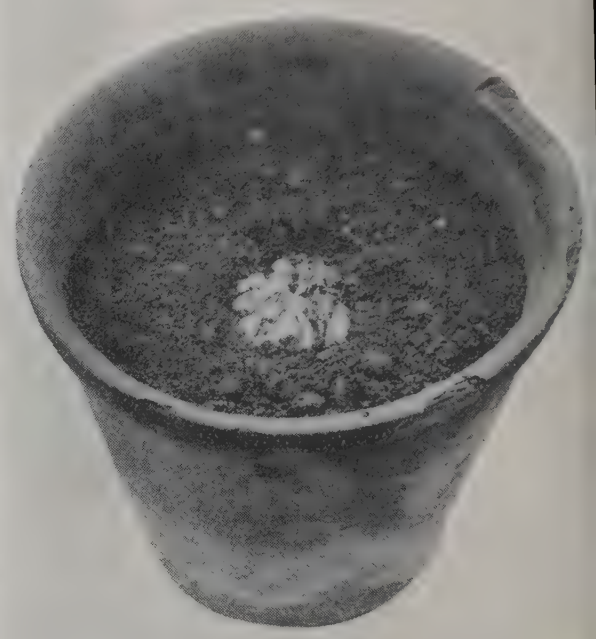
CULTURE OF LILIUM AURATUM IN POTS.

OF the numerous hardy species of Lilium, I doubt whether there is one that is better known or more popular than Lilium auratum, the golden-rayed Lily of Japan as it is so frequently and aptly described. It is a most noble-looking flower, well-grown specimens often yielding handsome blooms quite 1 foot across.

As a plant suitable for pot culture the writer is concerned at the moment, however, and as there are many readers of THE GARDEN who may have the necessary facilities for growing this subject well, it is proposed to show how this may be done. The period during which the actual potting may be done extends from September to March, although a slight variation either earlier or later does not matter very much. What is of the highest importance is to have good plump bulbs, and on no account should they be potted up until they are in this condition. The treatment imported bulbs should receive on arrival should be to remove injured scales, and then to place the bulbs in shallow boxes, surrounding them with a thin layer of Cocoanut fibre refuse, and afterwards to give them a cool position until they have become plump. As a rule, the bulbs can be purchased in fit condition to pot up right away.

Some growers recommend the placing of one bulb in a 5-inch or 6-inch pot, or three bulbs in an 8-inch or 10-inch pot. Good results undoubtedly achieved in this way; but I pre to place one bulb of fair dimensions in an 8-i pot and to grow on the plant to its flower stage in this. For pot culture the comp should comprise equal parts of loam, peat, le mould, thoroughly decayed manure and sa Successful results have been obtained, howev without either leaf-mould or decayed manu The compost should be carefully mixed bef use.

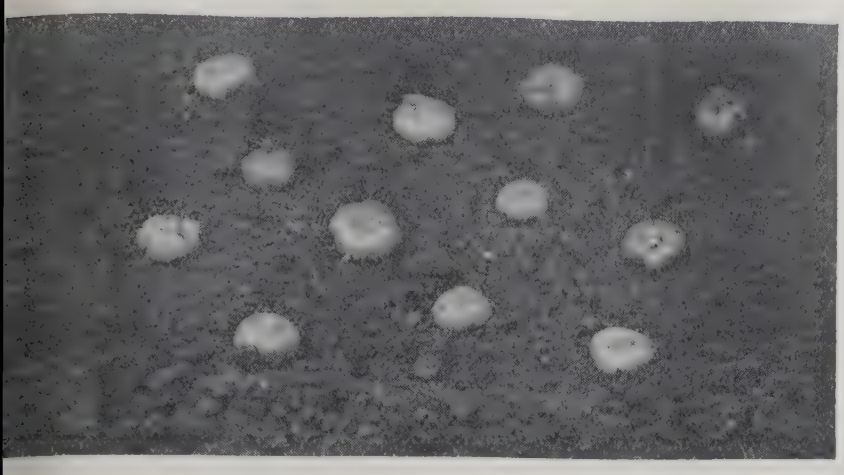
Proceed then to crock the pots, placing pieces of potsherd in such a fashion as



2.—THE INITIAL WORK IS COMPLETED B FILLING IN THE PREPARED COMPOS ROUND THE BULB AND SLIGHTLY COVER ING THE LATTER.

ensure a good and efficient drainage, coveri the crocks with some of the rougher portions the soil. A few handfuls of the prepared s should in turn be placed over the latter and t bulb placed in position on this. In Fig. 1 t method of adjusting the bulb in the pot is show It will be observed that the bulb is placed w down in the lower half of the pot, and this is, course, done with an object. Fig. 2 serves indicate how the work should proceed. T reader will note that the compost has been fill in well round the bulb and, for the purpose illustration, just the crown of the latter h been made visible by removing the small quanti of soil by which it was covered. The beginn will from this understand that it is only at th early period necessary slightly to cover the cro of the bulb. In a comparatively short time t bulb will emit roots from the base and grow from the crown. Subsequently, and as soon the growth is about 3 inches to 6 inches hig the space left in the pots should be filled in wi top-dressing material to within about half inch of the rim. By these means stem roots a induced to push freely into the soil and th give a helpful stimulus to the growth of t plant.

After the bulbs are first potted up the po should be placed in a cold frame, greenhouse any other convenient position, and be cover with a few inches of Cocoanut fibre or cind ashes until growth has commenced, as previous mentioned. Subsequently give the plants a lig and airy position in the greenhouse or windo



3.—CORMS OF THE GLADIOLUS PLANTED IN AN IRREGULAR GROUP IN THE OUTDOOR BORDER. MUCH THE BEST EFFECTS ARE OBTAINED BY GROUPING OR MASSING THE CORMS OF THIS SUBJECT.

applying weak liquid manure twice weekly until the plants attain full growth. By August next the plants should come into flower.

PLANTING THE GLADIOLUS OUTDOORS.

The Sword Lily, the common name of this well-known subject, claims distinction as one of the most showy of our hardy bulbous subjects, more especially the popular brilliant scarlet hybrid G. brenchleyensis, and G. gandavensis. The best period for planting the above-mentioned kinds is March and April, and the writer favours the latter month. The flowering quarters should be deeply dug and well-decayed manure incorporated at the time. I would also add leaf-mould to the soil, as the Gladiolus appears to revel in it. The corms should be planted about 4 inches deep and about 1 foot apart, and should rest on and be surrounded by a small quantity of coarse silver sand. Mistakes in planting are sometimes made by placing the corms in rows in a border or, possibly, three corms in a group. This subject never looks better than when planted in bold and effective groups, and if a number of corms are grouped in a fashion somewhat similar to that illustrated in Fig. 3, the result will be far more satisfactory than in any other way. Irregular groups of ten to a dozen corms in each make a fine show in the flowering season. When growth is well advanced, each one should be staked and the surface be given a good mulching with decayed manure. Freely water in dry weather.

SOWING SEEDS OF CHINESE PRIMULAS.

It is always an anxious time when the raising of seedlings of these plants has to be done. If a gardener can grow Primulas to perfection, he need not be afraid of attempting the cultivation of any other kind of plant. Through ignorance of the germinating powers of the seeds, thousands of plants are lost to cultivators every year.

Some seeds—though all may be sown at the same time and given exactly the same treatment—may germinate in the course of about eighteen days, while others will remain dormant for nearly six weeks and then germinate. Now, in such circumstances, it is necessary to be able to remove the early seedlings from the soil without in any way disturbing the seeds just beginning to germinate. To accomplish this, the seeds must be dropped on the surface of the soil about 1 inch apart. This will mean the use of several more pots or pans, but the advantage gained is well worth the trouble entailed in preparing and afterwards dealing with them. Plants raised now will, if properly treated, flower from next December to the April following.

Any frame will be suitable for raising the seedlings in; until germination takes place the glass lights must be kept closed and both squares of glass and sheets of paper put on the seed-pans. As the young plants appear they should have light but not exposure to sunshine; also a little air will be necessary.

It is essential to success that the plants be grown on steadily throughout the summer and not be allowed to bear any flowers. Moreover, the plants should be placed in a frame facing north, so that the interior can be kept as cool as possible; to this end a slight permanent shading on the glass is necessary.

The collar of the plant must not be buried below the level of the surface soil in the pot, and when the young plants are well established abundance of air must be admitted to them night and day. Fibrous loam and leaf-soil in equal proportions, with a 6-inch potful each of sand and old mortar rubble to a bushel of the combined parts, will form a suitable compost.

Shamrock.

PLANTING TROPÆOLUM TUBEROSUM.

This tuberous Tropæolum is a beautiful and very distinct climbing plant, and is not seen in our gardens as often as it deserves to be. It yields a profuse display of lovely scarlet and yellow blossoms in late summer and early autumn. It is a native of Peru, and has curiously shaped tubers, as will be observed in Fig. 4. Now is the best time to plant this showy climber, and it should be planted in open, sunny situations in poor soil. In any case the soil should not be over-rich. The growth of this plant is represented by slender stems that attain a height of from 2 feet to 4 feet, which should be supported by branching stakes or allowed to trail along the ground. The tubers ought to be planted 4 inches to 6 inches deep at convenient distances apart, and at the conclusion of their flowering season they should be lifted and stored in sand where frost cannot reach them. There are many bulbous subjects which are well suited to culture in our British gardens, and with which comparatively few growers are well acquainted; more intimate knowledge of these would lead to their extended culture.

D. B. C.

THE TOWN GARDEN.

The Daffodil Season.—The season of the Daffodil is now at its height, and there is much to be done in those gardens where only a moderately large collection is grown. Quite one of the more important of the many operations calling for attention now is to see that the soil about the plants or clumps is not permitted to become caked either by drying winds or heavy, pelting rains; hence a light pricking up of the surface soil with a small handfork will render good service. Advice to water these bulbous plants when growing in the open beds or borders is rarely given, and probably the flowers of not a few varieties growing in light, sandy or gravelly soils appear decidedly inferior in size in consequence of the dryness of the soil. A thorough soaking of water, then, in the case of soils that overlie a gravel subsoil will be of much advantage, a similar remark applying to times of long-continued drought in spring, when, in addition, dry, harsh winds prevail that keep the growth practically at a standstill. At such a time water may be given without stint, the moisture not only greatly improving the flowering of the moment, but by encouraging a better development of leaf and bulb materially enhance the prospects of any future growth or flowering.

Moisture-loving Daffodils. — Not a few kinds and such as the Poeticus race, Emperor, Sir Watkin and, indeed, a large number of the incomparabilis group are never so happy as when growing in a deep rich soil that is uniformly moist or even wet at all seasons, though they are not usually grown in such soils commercially because of the cost and inconvenience of working them. As some sort of substitute, therefore, liberal field cultivation is indulged in. Thus the amateur must judge for himself which is best in the circumstances in which he is placed. Liberal cultivation is of great importance if the finest flowers are to result, while an occasional soaking of water or weak liquid manure or soot-water will not be given in vain.

Red-hot Pokers.—These are known botanically as Kniphofias and also as Tritomas, the former being the accepted modern name for the group. I refer to these showy subjects now because no season of the year is so well suited to dividing and transplanting them should this be necessary. The Pampas Grass (Gynerium argenteum) may also receive similar thought and treatment if needs be. The stout and densely packed rootstocks of these plants require a good deal of force to separate them, the operation being best performed by placing two garden forks back to back into the clump and wrenching both outwardly in opposite directions.

Thinning the Shoots of Hardy Plants.—The value of the timely thinning of Grapes or the disbudding of Carnations or Chrysanthemums is everywhere known, practised and recognised where good gardening is done, though the value of the same principle is, I fear, either overlooked or quite ignored in the case of hardy perennial border plants. Too frequently the old-established clumps of herbaceous Phloxes, Michaelmas Daisies and other things which have not received seasonable attention in the matter of division and replanting are seen to be a thicket of shoots, and for all of which complete development is an impossible thing. To allow the whole of these to struggle on to the period of flowering would mean failure; hence a large number of the weaker shoots should be cut or pulled out at once. In the case of a Phlox a dozen or so flower-panicles spread over 2 feet or 3 feet are capable of giving a fine display; whereas a large number of weakly flowering shoots are altogether uninviting and unattractive. The work of thinning out the shoots of

4.—TUBERS OF THE SHOWY TROPÆOLUM TUBEROSUM. THIS IS A CLIMBER, AND ITS GROWTHS MAY BE SUPPORTED BY BRANCHING STAKES OR BE ALLOWED TO TRAIL ALONG THE GROUND. PLANT THE TUBERS 6 INCHES DEEP IN THE OPEN BORDER IN A SUNNY POSITION IN APRIL.

such a plant should not be undertaken in any half-hearted sort of way, but rather with a desire to improve matters generally, and any amateur will realise at once that fifty stems all crowding from a rootstock of, say, 12 inches across have but little chance of giving a good flowering. In the process of thinning regulate the position of the shoots as much as possible, remembering always that those on the outer portion of a clump are of a vigour superior to the rest. E. H. JENKINS.

NEW PLANTS.

ODONTOGLOSSUM ARDENTISSIMUM NORMAN COOKSON. — This is a very beautiful variety indeed, and may be regarded as the most beautiful of all the newer Odontoglossums. The flowers are very large, in shape somewhat resembling those of O. crispum, except that the petals are broader. Both sepals and petals have a large blotch of brownish crimson in the centre of each, this being slightly mottled and very daintily edged with white. The labellum is the same, except that the white margin is broader and the crest rich yellow in colour. Shown by Mrs. Norman Cookson, Oakwood, Wylam-on-Tyne. First-class certificate.

Phalænopsis casta superbissima.—This is a very handsome plant, the specimen shown having a large pendulous raceme of flowers. These were of the usual shape, large and of a delicate blush pink colour, the curiously shaped labellum being marked with a number of small crimson dots. Shown by Messrs. Sander and Sons, St. Albans. First-class certificate.

Lycaste Skinneri Hellemen's variety.—A very striking variety, the flower being crimson and deep rose. The colour of the sepals is very deep rose, but the petals are rich crimson. The labellum is white mottled with crimson. In addition to its unique colour the flower is of very regular outline, and altogether is a most remarkable addition to existing sorts. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Tetbury, Gloucester. First-class certificate.

Odontoglossum Ceres Goodson's variety.—A very prettily marked variety with good-sized flowers. The white ground of the petals and sepals is in places slightly tinged with rose pink, and each is heavily mottled with dull brownish crimson. The rather large labellum is pure white with a yellow crest, the conspicuous column being rosy purple in colour. Award of merit.

Odontioda Goodsoniæ.—A very pretty variety, not unlike some forms of O. Bradshawiæ in the shape and ground colour, the latter being a sort of orange scarlet. The flowers, however, are freely mottled with creamy white, this adding considerably to their attractiveness. Both were shown by H. S. Goodson, Esq., Fairlawn, Putney. Award of merit.

Sophro-Lælio-Cattleya The Hon. Mrs. Barbara Wilson.—A flower of medium size and very bright colour. The sepals are rather narrow and almost lanceolate, the colour of these and the broader petals being bright rose crimson. The comparatively large labellum is of rich crimson hue, with the usual yellow markings in the throat. Shown by Messrs. Charlesworth and Co., Hayward's Heath. Award of merit.

Auricula Phyllis Douglas.—An alpine Auricula of much merit; indeed, the veteran exhibitor and raiser, Mr. Douglas, considers it the best he has himself raised. The handsome pips are exceptionally well formed and the colour shading is well defined. It is a purple-shaded variety, with clear white centre or "paste." Shown by Mr. James Douglas, Great Bookham, Surrey. Award of merit.

Lonicera pileata.—A new species from China said to be both hardy and evergreen, though in certain districts there may be doubt as to the latter. The species is of spreading bush-like habit, the nearly horizontally-disposed or sub-erect branches being furnished with small Box-like leaves, the creamy-coloured flowers depending from the under sides of the branches. In the small state the newcomer should not prove unwelcome in the rock garden. Shown by Messrs. Paul and Son, The Old Nurseries, Cheshunt. Award of merit.

Cineraria Feltham Beauty.—In this case an award of merit was given for the strain, the latter being represented by shades of blue, pink, white, crimson, violet and others. The Feltham Beauty strain is fully representative of the stellate forms of these flowers, and in the model character of their growth and freedom of flowering there is indicated much excellence. Shown by Messrs. James Veitch and Sons, Limited, Chelsea.

All the preceding were shown before the Royal Horticultural Society on the 5th inst., when the awards were made.

THE GREENHOUSE.

THE POTTING OF HIPPEASTRUMS.

THE advice given in a gardening contemporary that March is a good time for potting Hippeastrums reminds one of the widely different opinions that prevail on the subject. Personally, I look upon it as one of the worst months for the purpose, as the plants are then just showing their flower-spikes or are almost ready to do so, and the weakening effects of disturbing the roots at such a time should be fully understood by all cultivators. Far and away the best time to repot the bulbs, when such a course is necessary, is, in my opinion, directly the flowers fade, for the roots are then active and quickly take possession of the new soil; whereas if repotting is done just as the flower-spikes are on the point of developing there is not time for the roots to become established, and consequently the flowers are smaller and do not remain fresh as long as those borne by established bulbs.

After being potted the plants should be encouraged to make strong growth by being given a good position in a warm house and kept well supplied with water. A fair amount of atmospheric moisture is also very necessary. When growth is completed the plants should be removed to a cooler and lighter structure in order to ripen the bulbs; indeed, during the latter part of the summer full exposure to sun and air will be very beneficial.

At one time the repotting of Hippeastrums was carried out in January or early in February, and this practice still prevails in some establishments. It is certainly a better time than the month of March; but still, it seems to me unreasonable to disturb the roots even then, provided always that they are in good condition. The better plan is early in the year to carefully examine the bulbs, and if the pots are well furnished with healthy roots to leave them alone. At the same time, any that are not in a satisfactory state should be shaken quite clear of the old soil, any decayed roots cut off and the bulbs be again repotted, taking care that very little water is given till the new roots are active.

This brings one to the question whether annual repotting of Hippeastrums is necessary. I say most emphatically, no. When the plants have flowered, far better than repotting in many instances is to take away some of the surface soil and top-dress with good rich compost. Afterwards the plants may be fed with occasional doses of weak liquid manure. For plants that are intended to remain two or three years in the same pot it is very essential that the drainage be thorough, and also that the original compost be such as will remain sweet and good for that lengthened period. Fibrous loam of a fairly holding nature, lightened by a little leaf-mould or peat and a liberal sprinkling of silver sand, will form a good and lasting compost for Hippeastrums. H. P.

THE ROSE GARDEN.

AN AUSTRALIAN ANALYSIS OF ROSES.

THE following list was compiled by Mr. F. W. Handasyde, secretary of the National Rose Society of Victoria, Australia, an excellent society of enthusiastic Rose-growers, and shows the positions occupied by the various blooms in contrast with those staged last season.

Present Position.	*Variety.*	*Stagings at Spring Show in 1909.*	*Stagings in 1908.*
1	William Shean	42	6
2	Mildred Grant	34	29
2	Kaiserin Augusta Victoria	34	22
3	Bessie Brown	32	22
4	White Maman Cochet	30	24
4	Dean Hole	30	30
5	Mrs. E. Mawley	26	32
5	Belle Siebrecht	26	7
5	Frau Karl Druschki	26	64
6	Maman Cochet	23	32
6	Mrs. David M'Kee	23	4
7	Lady Ashtown	20	5
7	Maréchal Niel	20	15
8	Mrs. J. Bateman	19	20
9	La France	18	9
10	Souvenir de Pierre Notting	17	3
11	Lyon Rose	12	2
11	Marquise Litta	12	8
12	Muriel Grahame	11	12
12	Mme. Jules Gravereaux	11	2
12	Medea	11	9
12	Oberhofgärtner Terks	11	6
12	Queen of Spain	11	2
13	Frau Lilla Rautenstrauch	10	4
13	Joseph Hill	10	5
14	Yvonne Vacherot	9	6
14	Duchess of Portland	9	11
15	Königin Carola	8	—
15	Prince Camille de Rohan	8	14
15	Mme. Jules Grolez	8	1
16	Alliance Franco-Russe	7	8
16	Souvenir de Elise Vardon	7	1
17	The Bride	6	3
17	Exquisite	6	—
18	Mrs. Myles Kennedy	5	—
18	Charles J. Grahame	5	—
18	Hugh Watson	5	3
18	Killarney	5	9
18	Pharisaer	5	—
18	Caroline Testout	5	8
18	Hugh Dickson	5	—
18	Florence Pemberton	5	11
18	Richmond	5	3
19	Countess of Derby	4	2
19	Cleopatra	4	—
19	Mme. Maria de Zayas	4	3
19	Dr. Rushpler	4	8
19	Ernest Metz	4	3
20	Farbenkönigin	3	7
20	J. B. Clark	3	11
20	Mme. Abel Chatenay	3	2
20	Duke of Edinburgh	3	2
20	Clara Watson	3	1
20	Boadicea	3	—
20	Perle von Godesberg	3	1
20	Ulster	3	2
20	Lady Moyra Beauclerc	3	4
20	Bridesmaid	3	2
20	Lady Helen Vincent	3	—
20	Mrs. Theodore Roosevelt	3	4
20	Rose de Evian	3	3
20	Earl of Pembroke	3	9
20	Comtesse de Nadaillac	3	3
20	Princess Beatrice	3	1
20	Lady Mary Fitzwilliam	3	4
21	Mme. Louis Laurens	2	—
21	Lady Faire	2	—
21	White Lady	2	2
21	Lady Stewart	2	—
21	Robert Duncan	2	7
21	Gustav Grunerwald	2	—
21	Prince Arthur	2	—
21	Lady Ursula	2	—
21	Etoile de France	2	8
21	Grüss an Sangerhausen	2	—
21	Jubilee	2	2
21	Mamie	2	1
21	Mme. Constant Soupert	2	5
21	Liberty	2	5
21	Mrs. John Laing	2	4
21	Rev. T. C. Cole	2	—

DAFFODILS AT VINCENT SQUARE ON APRIL 5.

A GOLD MEDAL EXHIBIT.

THAT *rara avis* a gold medal exhibit of Daffodils appeared for the first time since 1908 at Vincent Square at the last meeting. Everyone was very sorry to learn that the owner was ill and unable to be present, and many were the good wishes I heard expressed for his speedy recovery. Personally, I heartily congratulate Mr. A. M. Wilson on the display of magnificent flowers which charmed and attracted a good many others besides "Daffodil people" all day long. The only adverse criticism that anyone could make was that the flower-vases were too much crowded together; in fact, had the group occupied double the space it did, it would have gained immensely in importance and the individual varieties which composed it would have stood out more effectively. As for the individual blooms, there was not a poor one to be found; and when I say that Incognita was one of the commonest varieties (if I may use the word with a strictly relative meaning), I think it will convey an idea of the excellence of the collection. In all there were about eighty different kinds, and they comprised pretty well every section of the genus Narcissus as we know it on the show table to-day. Two small flowers represented the novelties. One was Sunflower, a flower of a rich deep yellow, 2¾ inches across the perianth and with a deep-toned, flat, widely expanded cup, which was 1¾ inches in diameter, the whole conveying the idea of the sun which, as children, we knew so well in our "Struwwelpeter." The other flower was a lovely cyclamineus hybrid, with (compared with the type) a broad, reflexed perianth, reminding one of a butterfly at rest. It, too, was very appropriately named and was called Sulphur, which I think is the name given to one of our British varieties. I thought it would be the very thing for small vases on such places as curio tables.

There was one particular place in the top row that attracted me very much. It was where Bernardino, Countess of Stamford and No. 532 stood side by side. Bernardino is the charming Lulworth seedling that I think one of the most exquisite of all Daffodils, with its grand white perianth surrounding one of the most dainty of soft red cups, although it is large; Countess of Stamford, the Queen of Daffodils, stately, shapely and so pure in texture and shade, in my opinion the most lovely of all Mr. E. M. Crosfield's white trumpets; No. 532, an ideal flower, which a dreamer might see in his dreams after a day among the Leedsiis, with much of the Minnie Hume look in its cup and perianth. I saw late in the day that it had changed hands, and that it belonged to Messrs. Barr and Sons.

Among the other beautiful sorts I must mention Empire, a large giant Leedsii with peculiarly broad and flat perianth segments, and for the type rather a deeper-toned citron yellow cup than usual. It is a bloom that must be very nearly "the last word"—an imperial flower in every way. Then there was Michael, a large, rich yellow Magni, a perfect self. It has the square-shouldered-shaped perianth that we get in Peter Barr. A third large flower, and the largest of all the three, was Conqueror, a pale bicolor Magni, with the colouring of Weardale Perfection. It had a very distinct trumpet; seldom have I seen a more broadly recurving brim in any flower.

Two fiery, red-eyed flowers in close juxtaposition were Gadfly and Cossack. They were interesting, being fairly close together, as one was able to compare the two types of perianth—the very much reflexed and the moderately reflexed. I must say the former seemed to me the more attractive. Gadfly is noteworthy because of the red which suffuses the whole of its eye and keeps a deeper shade up to the very middle. Tennyson is one of the most refined Poets, and is distinguished by the wine red edge to its cup and the roundness of the flower as a whole. Orange Queen was, as its name suggests, a beautiful harmony in orange, the richer colour of its large, flat eye being beautifully set off by the lighter perianth.

OTHER EXHIBITS.

I have only left myself room to refer to that of Sir Josslyn Gore-Booth, Bart., from Lissadell, Ireland. It is the first time this season that he has sent flowers. I do not expect many know on what a large scale he has been raising seedlings. Practically speaking, he has unlimited land to devote to them, and as he works in a strictly methodical manner I anticipate his giving us some very fine things. We had some *hors-d'œuvre* on the 5th. Putting on one side the immense yellow trumpet Sir Horace Plunkett, the shapely, large-cupped bicolor Joseph Sangster and the wonderfully grown Incognita, the collection included some very beautiful flowers that had been created at home.

No. 488–05A was a delightful large trumpet, distinguished by the graceful twisting of the perianth segments. Each one seemed to twist in the same direction, and gave a character of its own to the whole flower. The trumpet was rather narrow, with an elegant recurving brim, and the harmony between the two was perfect. Both perianth and trumpet were a nearly uniform rich yellow.

No. 488—05X was a magnificent self yellow Magni. If the blooms improve with age, Sir Horace Plunkett will have to look to his laurels. Dolly, a small, round, flat-eyed flower, and Muriel, a nice even Poet, showed, along with two handsome Leedsii seedlings, that the seedlings will not all be of one type. Messrs. Barr and Sons, Messrs. Cartwright and Goodwin, Messrs. R. H. Bath, Messrs. F. Lilley, Messrs. Carter and Mr. J. Pope also had exhibits; but I will deal with these next week. JOSEPH JACOB.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Garden improvement (*Rural*).—The three banks of the very small plot to which you refer might well be transformed into a miniature rock garden, while the low-lying central part could easily be converted into a spot for the cultivation of either bog plants or a set of the moisture-loving Primulas, Trilliums and Lilies. The banks as existing should be dug over and cleared of weeds, and then, by procuring sandstone rocks, introduce these in their most natural manner into the banks, when, with the addition of better soil, such things as Saxifrages, Aubrietias, alpine Phloxes, Silenes and others could be planted. The lower portion should also be dug up, and, with the rough stones and weeds cleared away, you might introduce some very short manure and a few barrowfuls of loam and peat in about equal parts; or, should the latter be scarce in your district, good leaf-soil might be substituted. Into this Primula rosea, P. cashmiriana, P. c. alba, P. Sieboldii, Trillium grandiflorum, Hepatica angulosa, Anemone robinsoniana and a host of other interesting plants might be introduced. By arranging stepping-stones on the ground level on the bank sides the plants could be examined or attended to at will, and by directing the water from the rainfall into the lower portion the plants we have named would be greatly assisted.

Violets in sandy soil (*X.*).—It is quite impossible to grow robust and first-class Violet plants in soil so poor, but quite possible to do so by the application of plenty of well-decayed farmyard manure to the soil. If available, it would be better if you could apply half the quantity of manure and half decayed leaf-mould. To a border of the length given half a cartload of the manure or of both combined would not be too much. The ground should be trenched 2½ feet deep and the manure thoroughly mixed and incorporated with the soil as the trenching proceeds. It is a good plan to take small slips off the old plants now with pieces of roots attached and pot them in small pots in light soil, placing the pots afterwards in a moderately warm and shaded frame until a good lot of roots have been formed, then putting them out of doors in a sheltered place to harden, not forgetting to give them plenty of water until they are planted in the border early in May. The Neapolitan varieties should be planted in soil so rich at least 15 inches apart, and the larger-growing ones, such as Princess of Wales, 18 inches. Water should be given fairly frequently until the young plants have taken good hold of the soil. Use the hoe for stirring the ground among the plants as frequently as possible, and about the end of July place a mulch of well-decayed manure on the surface of the soil between the plants 2 inches or 3 inches deep. This you will find will strengthen the plants and greatly help to plump up the flowering crown and buds.

ROSE GARDEN.

Pruning various Roses (*A. Percy Sharp*).—The following climbing varieties of those planted last autumn need not be pruned this season, except to remove a few inches of their growths that may be somewhat soft and pithy: Lady Gay, Dorothy Perkins, Hiawatha, Evergreen Gem and Sweet Briars. These Roses break so well naturally from their base that it is not essential that they be cut back the first year. The Crimson Rambler, A. S. Gray, Aimée Vibert, Félicité Perpétue, Electra, Carmine Pillar, Gloire de Dijon and Ards Pillar would be best cut back at once to about 2 feet from their base. The Hybrid Perpetuals, Hybrid Teas and Teas which you planted in autumn should be hard pruned at once. Cut them down to within 3 inches or 4 inches of their base, and dwarf, stumpy sorts, such as Mildred Grant, cut back to 1 inch or 2 inches. The standards need not be pruned quite so severely. We usually prefer to leave the growths about 5 inches or 6 inches long of such sorts as you name; but if the pith looks at all brown when you cut the shoot, you must cut back until you come to sound white pith, even if you have to cut back to 2 inches or 3 inches. Be careful to cut back the shoots to an eye pointing outward rather than to the centre of the head; then you obtain a nice-balanced growth. Very thin, twiggy shoots are cut back quite hard, even to one eye. The Grüss an Teplitz, if it has good long shoots, may be treated as a semi-weeper by tying over the shoots like an umbrella, securing them to the stem of the tree by means of string.

Pruning Climbing Roses planted last autumn (*J. W. S.*).—If the plants of Climbing Mrs. W. J. Grant, Climbing Liberty and varieties of that type were on their own roots, *i.e.*, raised from cuttings, we should recommend you not to prune them the first year; but we presume they are budded plants with two or three long growths about 5 feet to 6 feet in length. It will be best, keeping in mind the future well-being of the plants to prune back all growths but one to 2 feet from the ground-line. The growth retained almost its full length will give you a few blooms, and, as soon as it has done so, cut it down to its base. The object is to induce the plant to break into growth from its base and thus form a handsome, well-balanced plant instead of a lanky one, which happens when such Roses are not pruned the first year. An alternative plan would be to spread out the most pliable growths in a fan-like manner, which has the tendency to ensure a breaking out of basal growths; but some of the kinds you name have growths rather too rigid for this plan.

MISCELLANEOUS.

Names of plants.—*Miss P. W.*—Azara microphylla.——*H. M. T.*—1, Narcissus Leedsii variety; 2, N. Tazetta variety. The rest are nameless seedlings.——*Miss*

North.—Chionodoxa Luciliæ Tmolusii.—*Subscriber.* Boronia heterophylla—*R. Taylor.*—1, Juniperus chinensis; 2, Abies Pinsapo; 3, Picea orientalis; 4, Cupressus lawsoniana Alumii; 5, Cedrus Libanii; 6, Thuya plicata; 7, Cupressus lawsoniana variety; 8, Abies lowieana; 9, A. nobilis; 10, Thuya occidentalis ericoides; 11, Cupressus lawsoniana; 12, C. obtusa; 13, Pinus Cembra; 14, Forsythia viridissima.

SOCIETIES.

BOURNEMOUTH HORTICULTURAL SOCIETY'S SPRING SHOW.

A VERY fine exhibition of spring flowers and plants was held in the Winter Gardens Pavilion on the 5th and 6th inst. Very fine weather marked the event this year, and the show in every respect appears to have been a decided success. This year marked a new and extremely popular feature, namely, the inauguration of a children's section. Only a small schedule of prizes—eight classes in the spring and a similar number in the autumn schedules—had been formed for this year, but the response of the coming gardeners and artists has been a noble one, as 212 entries were made. Baskets of cut flowers, baskets confined to Daffodils and their own foliage, vases of hardy flowers, pot plants, button-holes, pots of Mustard and Cress, coloured drawings of Daffodils and foliage, and black and white sketches of Lily of the Valley and one leaf composed the classes for the spring show.

The groups of miscellaneous plants arranged in a space measuring 12 feet by 8 feet formed a very attractive feature of the show. Messrs. G. Watts and Sons, nurserymen, Bournemouth, won premier honours in this class. A fine Palm and some climbing Roses filled the centre. Roses, Fuchsias, Liliums, Lilacs, Magnolias, Hydrangeas, Azaleas and Ferns were the other principal plants used. It was a good group of plants, but too much crowded. Mr. Slark, gardener to G. J. Fenwick, Esq., was a close second with a bold group of plants well arranged. The Bamboos at the corners and the Palm in the centre showed to advantage. Mr. T. K. Ingram, Parkstone Nurseries, Dorset, had a very pretty group indeed, well and lightly arranged, and was awarded third honours.

In several classes a duel existed between Mr. Ingram and Messrs. G. Watts and Sons. In the classes for six Azalea mollis and Azalea indica, the first-named won, second place being given to Messrs. Watts. The last-named were successful in the classes for twelve pots of Hyacinths and six pots of Lily of the Valley, Mr. Welch, Park Nurseries, being second-prize winner in the former and Mr. Ingram in the latter.

Mr. Usher, gardener to Sir Randolf Baker, Bart., Ranstone House, Blandford, had the best twelve pots of Narcissi in not fewer than eight varieties, and Messrs. Watts obtained second place. Some excellent blooms were staged in the class for eighteen varieties, distinct, of Narcissi, where Mr. Usher was again the premier prize-winner. Golden Spur, Mme. de Graaff, Victory, Emperor, Glory of Leiden and maximus were the best varieties staged. Messrs. Watts and Sons were placed second, Emperor, Empress, Mrs. Thompson and maximus being the best flowers. Mr. C. Wadey, Wimborne, was a good third. Mr. Usher was also successful in the two classes for five blooms of Narcissus Magni-Coronati and Parvi-Coronati respectively; also for a collection of Carnations, staging in grand form Britannia, Harlowarden, Victory and Mrs. Burnett. Messrs. Ingram and Watts were second and third respectively.

In another division Mr. Pearce, gardener to Mrs. Ormond, was a successful exhibitor, also Mr. Heath, gardener to G. G. Russell, Esq. Mr. Heath had the best six pots of Narcissus and six pots of Hyacinths, Mr. Pearce being second in each class. The last-named exhibitor had the best three pots of Polyanthus Narcissus, and Mr. Heath was second.

Tulips were well staged; the six pots which won the first prize for Mr. Pearce were superb. Spiræas were not extensively shown, but were of high quality. Here, again, Mr. Heath was first, followed by Mr. Slark for second position. For three large-flowered Cinerarias Mr. Heath was easily first, also in the classes for Cineraria stellata, Chinese Primulas and Cyclamen respectively. Mr. Slark had superb specimens of Schizanthus and easily gained the premier award. He had also the best pots of Mignonette and Mr. Heath the best Deutzias. Mr. Usher gained first position for a dinner-table decoration, Mr. W. Shave, gardener to the Dowager-Lady de Tabley, being a very close second, and Miss Taylor of Salisbury third. Any kind of foliage was allowed, but only Narcissus blooms in these decorations. Mrs. Shave was a very successful exhibitor in the classes for bouquets and epergnes. Her son, in the children's section, entered in five classes and won three firsts and two seconds.

NON-COMPETITIVE EXHIBITS.

These were numerous and of very high merit. The chairman of the committee, G. H. Rolls, Esq., J.P., staged a grand collection of Orchids, but did not wish for any award to be made. Mr. Robert Chamberlain, the vice-chairman and treasurer, was awarded a gold medal for exquisite floral designs. Gold medals were also awarded to Messrs. Cypher, Cheltenham, for Orchids; Sutton and Sons, Reading, for Cinerarias; Maurice Prichard, Christchurch, for rockery and alpine plants; and Mr. Pursglove, head-gardener at the Winter Gardens, for a fine collection of miscellaneous plants. Silver medals were awarded to Messrs. Heath and Sons, for rockery and alpine plants; Robert Sydenham, Limited, Birmingham, for plants in fibre and cut flowers; Young and Co., Cheltenham, for Carnations; and Miss Howes, for rockery and alpine plants.

LIVERPOOL HORTICULTURAL ASSOCIATION'S SPRING SHOW.

THIS society held its twenty-second spring show in the Corn Exchange on the 6th and 7th inst., and, so far as light and finance were concerned, this proved infinitely better than the handsome St. George's Hall. The entries were slightly below the average, but were more than compensated by the sixteen non-competitive exhibits. Owing to the length of the schedule, only the first-prize winners can be given.

For six pots of hardy herbaceous plants, Mr. E. R. Finch, gardener to W. J. Lockett, Esq., had excellent Liliums, Spiræas and similar plants. For twelve Hyacinths, Mr. T. Hitchman, gardener to A. Earle, Esq., was first, and for six pots, Mr. J. V. Thompson, gardener to Mrs. W. P. Sinclair, was champion. For six pots, three bulbs in each pot, Mr. J. Nisbet, gardener to Miss Robinson, was the winner.

First prizes for six pots of single Tulips and six pots of doubles went to Mr. J. V. Thompson, who had good examples. For twelve vases of cut Narcissi, Mr. G. Osborne, gardener to Drs. Tisball and Ingall, was first. For six Amaryllis, Mr. Thomas Rigg, gardener to Miss MacKean, was the winner with good types. First prize for one stove plant in bloom went to Mr. E. R. Finch, who had a good specimen of Anthurium andreanum. Mr. B. Cromwell was first for one greenhouse plant in bloom with Imantophyllum princeps.

For two Orchids, Mr. W. Hignett, gardener to C. W. Carver, Esq., won with grand specimens of Dendrobium Ainsworthii and D. nobile, both being well flowered. For two cool Orchids, Mr. J. Frith, gardener to T. Hignett, Esq., was the leading winner. For one Orchid, Mr. George Eaton, gardener to W. Todd, Esq., was first with Cymbidium lowianum, which had fifteen grand spikes.

In the class for three hardy forced plants, Mr. T. Hitchman won with large and well-flowered climbing Roses, and for three exotic Ferns Mr. G. Eaton was first with grand plants. Mr. E. R. Finch had the best single plant. For three Azaleas, Mr. B. Cromwell won with well-flowered specimens, and he was also first for the single specimen and for one Rhododendron, the latter being Pink Pearl. For six hardy forced plants, Mr. E. R. Finch was the leading winner with large specimens.

In the minor classes the results were as follows: Mr. F. C. Keightley, gardener to Mrs. Duncan, for Cinerarias; Mr. F. Atken, Cinerarias; Mr. B. Cromwell, Primulas and hardy Azaleas; Mr. E. R. Finch, Mignonette and table plants; Mr. J. Nisbett, Carnations; Mr. T. Wilson, Lily of the Valley; and Mr. T. Hitchman, Cyclamen and Callas.

As already mentioned, the trade were in strong force, Messrs. Mansell and Hatcher being awarded a gold medal for an admirable display of Orchids, including many choice varieties. Medals were awarded to the following: Messrs. C. A. Young, for Carnations; Lissadell Farm, for Narcissus; R. P. Ker and Sons, for Amaryllis; W. Rowlands, for Roses in pots and cut; Barr and Sons, for Daffodils; Hogg and Robertson, for bulbs; and Cartwright and Goodwin, for Daffodils. Certificates of merit went to Bees, Limited, for rock plants; Messrs. S. Mortimer, for Carnations; H. Middlehurst, for miscellaneous plants; Woodward and Co., for Calceolarias; T. Davies and Co., for Lily of the Valley, &c.; the Liverpool Orchid Company, for Orchids; and Baker's, for alpines. Messrs. Barr and Sons received a certificate for Narcissus Bedouin.

OBITUARY.

WILLIAM DENNING.

IT is our painful duty to record the death of this excellent and well-known gardener, on the 2nd inst., at his residence, Oak Avenue, Hampton, following upon a paralytic seizure about a month previously. Mr. Denning, who was one of the most energetic members of the Urban District Council of Hampton, had been speaking at a meeting on the evening of March 8, when he somewhat abruptly resumed his seat, and a little later it was seen that he was unwell. Medical aid being summoned, the doctors found that he had had a seizure, as above stated, and so serious was his condition that it was deemed advisable not to remove him to his house till the following day, when he was still in an unconscious state. Subsequently Mr. Denning regained consciousness, though he never recovered his speech. Mr. Denning will be best known to the older school of gardeners, and though his palmy days were spent in the service of the Londesborough family, first at Grimston Park, Tadcaster, and subsequently at Kingston Hill, his first important position as head-gardener was with the late Lord Bolton, Bolton Hall, Bedale, Yorkshire.

Mr. Denning was well known as an excellent plant and fruit grower and exhibitor, and there are many gardeners to-day holding good positions who can testify to the fact. Mr. Denning started his gardening career at Grimston Park, the then seat of the Earl of Londesborough, in 1849 or 1850 as an apprentice, indeed, to this day the inscription "W.D. 1850," cut by him on a young Lime tree in the park is to be found more conspicuous than formerly. For many years he was a member of the fruit committee of the Royal Horticultural Society, about which time he contributed to the calendarial literature of THE GARDEN. As an old Kewite, Mr. Denning was also well known, his interest in the Kew Guild remaining to the end. He was also a member of the committee of the Gardeners' Royal Benevolent Institution, and on its formation took a keen interest in the Gardeners' Orphan Fund. About the year 1887 Mr. Denning settled in Hampton, where he started in business as a market florist. A year or two later his aspirations led him to successfully compete for a seat on the Urban District Council, a seat to which he was repeatedly re-elected as his term of office expired. Some three years or so ago Mr. Denning was elected chairman of the Council; indeed, he has filled almost every office in connection with that body. Mr. Denning attained his seventy-third year on April 1, and leaves a wife and several sons and daughters.

Under gloomy skies and in the presence of a large gathering of relatives, friends and neighbours, all that was mortal of the late William Denning was laid to rest in the pretty cemetery at Hampton on Thursday of last week. It was a fitting burial-place for the old gardener, for not only was he, by a singular coincidence, as a valued member of the District Council chairman of the Cemetery Committee, but the very neat, pleasing aspect of the enclosure indicated the care and oversight of a lover of the beautiful. Those present included all the other members of the District Council, the Council employés, the local Fire Brigade, many of the schoolboys and several local horticulturists, including Messrs. W. H. Page and Sons, E. H. Jenkins, W. Tayler, H. T. Mason, W. Bowell, Archibald Graham, formerly of Hampton Court Gardens; A. Dean of Kingston and F. Lindsay of Richmond. It was a matter for deep regret that no one was present to represent the committee of the Royal Gardeners' Benevolent Institution. Numerous very beautiful floral wreaths covered the deceased's coffin and the hearse.

"Country Life" for April 16 contains among other articles, an illustrated account of "Hengrave Hall, Suffolk"; "Tale of Country Life: The Surprise-Officers," by Tickner Edwardes; "Wild Country Life" (illustrated) by Seton Gordon; "How to Choose Old Furniture" (illustrated), by Basil Oxenden; "Spring Salmon-fishing."

Gardening appointment and presentation.—Mr. W. B. Clark, who has for about two years been the foreman at Coltness, Wishaw, Lanarkshire, has been appointed gardener to Mrs. Crombie, Balgownie Lodge, Aberdeen, in whose service he formerly was. He entered upon his duties on April 1. Prior to Mr. Clark leaving Coltness, he was presented by his friends there with a gold albert and pendant as a mark of their esteem and their good wishes for his success in his new appointment.

TRADE NOTE.

ALPINE AND HERBACEOUS PLANTS FROM SLIGO.

MR. J. A. COOPER, Lissadell, Sligo, Ireland, sends us his excellent little catalogue of alpines, hardy herbaceous plants, shrubs, &c., and this we heartily commend to the notice of those of our readers who appreciate all that is best among such plants. The catalogue is arranged alphabetically, and copious descriptions of all the plants mentioned are given. In addition, there are some good full-page illustrations in black and white. The catalogue is neatly bound and of a convenient size to carry in the pocket.

*** *The Yearly Subscription to* THE GARDEN *is: Inland, 6s. 6d.; Foreign, 8s. 9d.*

THE GARDEN.

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CONTENTS.

SPRING LESSONS FROM THE PARKS 197
NOTES OF THE WEEK
Forthcoming events 197
CORRESPONDENCE
The proposed International horticultural exhibition .. 198
Poisonous plants in the conservatory .. 199
GARDENING OF THE WEEK
For the South and South Midlands .. 199
For the North and North Midlands .. 199
A famous Primula .. 200
ROSE GARDEN
Bedded Roses planted in conjunction with summer bedding plants 200
FLOWER GARDEN
A tangled rockery .. 201
The fascination of the Crocus 201
Plants to use with Sweet Peas 201
Sweet Pea chat .. 201
Auricula Phyllis Douglas 202
Daffodils and Tulips at Vincent Square on April 5 202
FLOWER GARDEN
A useful hardy annual 203
COLOURED PLATE
Hardy hybrid Rhododendron Dr. Stocker 203
TREES AND SHRUBS
The double-flowered Blackthorn 203
A rare hardy shrub.. 203
GARDENING FOR BEGINNERS
Garden work week by week.. 204
Transplanting Cabbages and Onions.. 204
The treatment of Gloxinias 205
THE TOWN GARDEN .. 205
GREENHOUSE
A plant for a cool greenhouse 206
Fuchsias as pillar plants 206
BOOKS 206
ANSWERS TO CORRESPONDENTS
Flower garden 206
Trees and shrubs .. 207
Greenhouse 207
Fruit garden 207
Miscellaneous 208
OBITUARY 208
SOCIETIES 208

ILLUSTRATIONS.

Primula obconica gigantea 200
A tangled rock garden 201
The new alpine Auricula Phyllis Douglas 202
A useful hardy annual: Linaria bipartita alba 203
Rhododendron Dr. Stocker .. .. Coloured plate.
The way to plant summer Cabbages 204
The way to transplant autumn-sown Onions 205

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

SPRING LESSONS FROM THE PARKS.

MANY are the lessons that may be gathered from the spring flowers in the parks of London and surrounding the great cities of this country. It is a positive delight at this season, when we bear in mind the pleasure grounds of this country a few years ago, to find the beautiful features of the country home brought under the observation of the poorest in the surroundings of large cities. There is that thought, the beneficent influence of flowers shown in the way that Nature does in mead and copse. It must have an influence on the minds of young and old, and also is a lesson for those who have not yet grasped the great and beautiful possibilities of outdoor gardening when freed from an over-conventionality. When even in these days of gardening enthusiasm one travels through the country, it is astonishing to discover dreary places that might be made beautiful; but a gradual awakening has come. It began with the work, in a sense, of Mr. Ingram, the late Duke of Rutland's gardener at Belvoir, of Mr. William Robinson in his beautiful home at Gravetye Manor, and of Miss Jekyll at Munstead. These were, in a large measure, the leaders, and at that period, too, came a gradual improving taste all round—in the home, in architecture, and in everything that permeates the national life. We do not want a slavish adherence to Nature. A garden is a garden and not a meadow. The wild flowers belong to the wayside bank, the woodland and the streamside; but from these lovely pictures of flower life, precious to us from childhood days, may we not learn something of the way to plant the bulbs, perennials, or whatever the kinds may be, in our own gardens?

Drifts of Daffodils shed a golden gleam in many a park; the Chionodoxas are oases of blue, and soon the Tulips will burst out into resplendent colouring. Spring and early summer, once so desolate save for the flowers that Nature gave us, are the most enjoyable seasons of the year. The rock garden is smothered with flowers, blue from the Aubrietia, yellow from the Alyssum and purest white from the Arabis, with a hundred alpine gems to bear them company; and a visit to the London parks, Regent's Park and the beautiful public domains in or near the great metropolis is a perfect holiday to those who cherish their gardens. No matter whether it is the botanic gardens of Kew, of Birmingham, of Cambridge, or of any of our great public parks, there are lessons to be learnt and notes to be made of colour contrasts that, though not always correct according to our conception, are worthy of consideration and attention, and the individual can devise something more approaching his or her ideal to surround the home.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 27.—Herefordshire Spring Flower Show, in the Shire Hall, Hereford. Darlington Horticultural Society's Spring Flower Show, Drill Hall, Darlington. Royal Horticultural Society's School Teachers' Examination.

April 28.—Midland Daffodil Society's Exhibition, Edgbaston Botanic Gardens, Birmingham (two days).

April 30.—Horticultural Show at Brussels Exhibition (five days).

Two-day fortnightly Royal Horticultural Society's meetings.

Before taking any action in relation to the proposal for extending all the ordinary fortnightly meetings at Vincent Square during the four months of March, April, May and June to a second day, the Council of the Royal Horticultural Society has done wisely to invite the opinion of the regular exhibitors at these meetings on the matter. So far as relates to the Fellows generally, the committees and the Press, the proposal can hardly meet with objection. So far as the general body of Fellows are concerned, many of them probably would welcome the opportunity to revisit the meeting on a second day with, perhaps, some other friends, or specially so if unable to visit the meeting on the first day. But at least one great encouragement should be offered to the public who are not Fellows, and that is the reduction of the charge for admission from 2s. 6d. on the first day to the popular 1s. on the second day. Not only would such a charge be in great favour with the public, but, by bringing in great numbers of lovers of flowers not habitual frequenters of the meetings, the horticultural trade, which chiefly make these fortnightly shows—and as a rule, especially during the months named, wonderfully varied and beautiful shows they are—would probably, in the additional business done by them, recoup themselves the extra expense incurred in allowing their collections and attendants to remain over two days instead of one. Assuming the trade exhibitors could see such prospect before them, no doubt where their exhibits could remain over a second day without coming to harm, they will readily consent. It has often been observed that so much labour and expense are involved in the creation of some of the exhibits that it is to be regretted that they should endure for one day only. If by having a cheap admission the Council could recuperate itself from any possible loss through not being able to let the hall on the second day, then, financially, nothing would be lost.

The Cacti plague in Queensland.

Professor Henslow sent the following communication which he had received from Surgeon-General

George Henderson, M.D., F.L.S., formerly Director of the Royal Botanic Gardens, Calcutta, to a recent meeting of the scientific committee of the Royal Horticultural Society: "In a communication to the Royal Horticultural Society's Journal for March, 1910, at page 350, I see you notice the Prickly Pear in Queensland. In the Punjab, India, before annexation, about 1849, this plant was a pest, and covered many miles of country. Ringret Singh is said to have had out some of his regiments to cut it down; but that did no good, unless it was burned, for every bit of it rooted and produced more plants; but about 1845 the wild cochineal insect was introduced (by mistake, it is supposed, for the cultivated or domesticated one), and, as if by magic, it spread all over the province and destroyed the Prickly Pear, which has never given any trouble since. I can find few references to this matter in any books, but I find one letter from Sir Donald McLeod, then Mr. McLeod, Commissioner of Lucknow, at page 265 of "Select Papers" of Agri-Horticultural Society of Punjab, 1868. The letter is dated December, 1852, and merely mentions the fact that 'an extraordinary influx of this insect (cochineal) almost exterminated the plant.' I lately wrote to Sir William MacGregor, Governor of Queensland, and told him about this. The cochineal would be easily introduced, for I took two pieces of Prickly Pear covered with the insect from Teneriffe to New Zealand in 1883, simply stuck on to two nails in my cabin wall, and delivered them to Dr. Hector when I arrived. I find in the book referred to a few casual references to the disappearance of the plant from the Punjab, but nothing very definite. I know for certain that the plant had never given any trouble up to 1889, for I lived much in the Punjab."

Scottish Horticultural Association.—The usual monthly meeting of this association was held in the Goold Hall, St. Andrew Square, Edinburgh, on the evening of Tuesday, April 5, when there was a large attendance, presided over by Mr. James Whytock, Dalkeith Palace Gardens, president of the association. The room presented quite a gay appearance from the number and quality of the exhibits on the table. A fine display was made by the exhibit from the chairman, which comprised some very fine Cinerarias and about fifty varieties of Apples. Messrs. Dobbie and Co. made a good exhibit with their Violas, Primroses and Polyanthuses; and the other exhibits included Cinerarias from Mr. R. M'Andie, Inveresk Gate, Musselburgh; Chrysanthemums from Mr. J. Hamilton, Eskhill Gardens, Musselburgh; Primulas from Mr. W. Robertson, Pilrig House Gardens, Leith; and several others of excellence. The paper of the evening was on "Comments on the Introduction to M'Intosh's 'Book of the Garden.'" The author and reader, Mr. James Grieve, Redbraes Nurseries, Edinburgh, is peculiarly qualified to discuss this subject in view of his long experience, and his comments were of a valuable and instructive kind, pointing out, among other things, the improvements in horticulture and the increased assistance given to the gardener in the way of appliances and remedies since M'Intosh's book appeared. The whole paper was full of valuable matter, and was treated in the characteristic manner which renders Mr. Grieve's papers and addresses so highly appreciated. Mr. Grieve was warmly thanked.

The late Mr. Denning and the Gardeners' Royal Benevolent Institution.—We omitted to mention that this institution was represented at the funeral of the late Mr. Denning, who had been a member of the committee for twenty-eight years. A beautiful wreath was sent in the name of the committee with a suitable inscription. Mr. Ingram, the esteemed secretary, though practically restored to health, was medically advised not to be present.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose M. Paul Lede in Scotland. In a recent number of THE GARDEN I stated that Rose M. Paul Ledé had come through the winter badly. This is wrong, as every plant of this fine Rose is alive and healthy. I meant to write Mme. Melanie Soupert, and regret having made the mistake.—C. BLAIR, *Preston House Gardens, Linlithgow.*

Alpine flowers under glass.—It is somewhat difficult to fully understand your correspondent "A Lover of Alpines," who, on page 174, first protests against the above idea, deprecating generally the necessity or desirability of a glass structure for these plants, and finally appears to be possessed of a lingering desire to know "which alpines thrive best under glass" and to learn something "as to their cost of management." There is, of a surety, a little inconsistency here, and a house that is not "necessary or desirable" is but a delusion and a snare. That I do not share the view taken by your correspondent may be gathered from my remarks on page 181, where I not only speak encouragingly of cold-house protection for the earliest flowers of the year, but also give some of the obvious reasons why such protection is both necessary and desirable. In this matter of affording protection to the earliest of alpine flowers, I am bound to confess to being an old sinner, for it was in 1877, I believe, that I first conceived and carried into effect an idea which I had not seen or heard of elsewhere. A year or two later, however, I gathered from one of the gardening journals—I believe it was THE GARDEN—that the late Mr. Joad was contemplating the erection of a house having a portable roof for alpine plants in his Wimbledon garden, the idea being protection merely from wet and the vicissitudes of our English climate. In doing this Mr. Joad and myself had, doubtless, one idea in common, remembering that while Nature gave ample protection to these children of the mountains for weeks together, they were, when transported to a foreign land and clime, exposed and subjected to incessant changes quite alien to them in their native homes. The whole trend of gardening is to make the most and the best of the materials we have at hand, and one of the greatest aims of the gardener is his endeavour to attain perfection. Was it not Lord Bacon who referred to gardening as "An art which doth mend Nature"? But where is this "mending of Nature" if we unduly expose these precious early flowers of the year and impose upon them uncongenial conditions unknown to them at home? Surely, too, the intelligently arranged alpine house is a great improvement on the too frequently slug-molested frame, while from the health-affording standpoint it is a thousand times better for the plants. A glass house for alpines is not intended to displace the frame or the rock garden, but rather to constitute a good adjunct to both; and where a large collection of early flowering alpines and bulbous plants is grown, the specialisation of these things in pans for show and educational purposes is worthy of encouragement. For example, a well-flowered example of Saxifraga burseriana major in a cold house in February is something to remember and to admire, the plant remaining good for a couple or three weeks. But because this fine plant is in this country an early flowering subject naturally, this is no reason for leaving it in the open to be eaten by slugs or pecked to pieces by birds.—E. H. JENKINS.

The Carnation Year Book.—I have just been studying the Carnation Year Book for 1910, published by the Perpetual Flowering Carnation Society, and I must say I agree with you that the book is, to say the least, scrappy, besides containing several pages of useless information. What a splendid opportunity the society has wasted in this their fi year book. If they had confined themselves t say, three articles, the writers could have do greater justice to their subjects; but perhaps t committee or the editor was afraid of causi some petty jealousy by asking only thr individuals to write for the first book. The be chapter in the present book is, I think, the o on hybridisation, in which the writer puts in print the thoughts that have been in my mind f some time, and that is that too much attenti is given to size and colour as against scent, pr ductiveness and robustness of constitution. I a one of many who think that the craze for size w act detrimentally to the Carnation; it will destro its usefulness and grace as the very best florist flower at present in cultivation. Just look the scale of points for judging new varieties 20 points each for size and colour, 10 on for fragrance and substance, and then, wor of all, only a possible 5 for calyx. I woul suggest the following: Colour, 15; size, 15 fragrance, 15; substance, 10; calyx, 15; habi 15; form, 15; total, 100. I would retain all th other conditions, viz., 85 per cent. for a firs class certificate and 75 per cent. for an award merit. Further, I would disqualify any exhibit who used any artificial support or whose flowe required rubber rings to protect the calyx. Seein that one of the objects of the Perpetual Flowe ing Carnation Society is the improvement of th perpetual-flowering Carnation, it should see tha all new varieties that receive awards are re improvements, and not merely larger bloom with possibly slightly weaker stems, or a ne shade of colour with a calyx liable to split, or o that is not a real perpetual.—EDMUND ECCLES.

The proposed International Horticultural Exhibition.—The publ meeting convened by the Council of the Roy Horticultural Society and held at the Hort cultural Hall, Westminster, on the 4th inst while well attended, was strangely lacking i enthusiasm and interest in the proposal of th Council in relation to the proposed exhibition defined by the president, Sir Trevor Lawrenc V.M.H. Admittedly the resolution, propose in much too brief terms from the chair, an seconded in a very few fervid remarks b Sir Albert Rollit, expressing the meeting desire that an International show be he in London in 1912 was passed unanimously But there was an apparent entire absence desire for further information or detail; indee it was the absence of that detail which seemed cast a sort of wet blanket over the proceeding That such a meeting should be held, yet be s over in the short space of twenty minutes, w most disappointing, and the auditors went awa very little wiser than they were previously an entirely lacking interest or inspiration. Certain the opportune moment to have promoted the pr duction of a good guarantee fund was lost; an had the Council courageously declared what su it was ready to guarantee—and it should n be one halfpenny less than £1,000, besides offe ing a similar sum to the actual expenses as subscription—then many promises of pecunia help would have followed and the meeting wou have realised that good, practical business w meant. The list of names forming the propose committee of management fairly took one's breat away. Three-fourths of those names would admirably as patrons, but for business purpos be absolutely unfit. The great exhibition 1866 had for its chairman the late Sir Charl Dilke and for treasurer the late Sir Dani Cooper; but both these gentlemen worked lik horses, as would such as Sir J. T. D. Llewely and Sir Albert Rollit or Sir Jeremiah Colm now if placed in positions of importance; special as chairman of the executive would Mr. Gurn Fowler be the very man for the post. But that former exhibition committee not one oth having an ornamental appellation was a membe It comprised ten leading nurserymen, thr head-gardeners, one contractor and, includi

the three secretaries, seven others of eminence in science or information. It was the practical, professional or business element in this body which rendered its ultimate work so successful. Had the Council in this case constituted its own body one-third of the committee of management of the proposed show, and invited the nomination from the meeting of the other two-thirds, in which nurserymen, market growers, professional gardeners and amateurs were fairly evenly represented, what a first-class body might thus have been constituted. We have waited so long for the successor to the great exhibition of 1866 that many who lived on and hoped to see it have passed away, as doubtless will many others before this great show becomes a reality. How few there are to-day who remember that great show at South Kensington; yet, superb as it was in its day, how much more must one two years hence eclipse it. We have passed through forty-four years, and in 1912 forty-six years will have elapsed between the dates of those shows, and what a history of horticultural progress can be written of that interlude! Practically in almost every phase gardening has gone ahead by leaps and bounds; its resources and capacities have been trebled or quadrupled; hence, measured by what was seen in 1866, it is almost impossible to secure an adequate representation of modern horticulture in a tent space of some ten to twelve acres. Apart from what Great Britain and Ireland can do, as also from Greater Britain, our Continental friends will need a large space also. Thus it is possible to furnish what will be needed only by huge cost and on really great lines. A great feature of the earlier show was its avoidance of straight lines and tents. The groundwork was that chiefly of old John Gibson of Battersea Park, and in that respect it represented a triumph of exhibition art. Sunken walks, raised grass banks, ample room, and each group fully displayed served to make that show an artistic conception. But then the dominant factors in creating effects and surprises were the gigantic specimen plants, especially of Roses and Azaleas, such as are not now seen, yet by 1912 might well be reproduced, as might also the noble specimens of so many other things. Very special effort should be made to create, prior to the show, richer examples of all descriptions of plants. Too long given to the creation of mere crowded groups, in which the cultural capacity of the grower has been submerged, all such miscellaneous mixtures or groups should be rigidly excluded, and the finest possible examples of each kind of plants asked for only. If British gardeners of all classes are to hold their own in the world they must show that, however clever they are in producing group effects, they are also great cultivators; indeed, will admit of no superiors, if they have equals. Especially must great efforts be made to produce representations of fruits and of vegetables, also plants, trees, shrubs and flowers. Apart from an able committee, the ablest designers and arrangers of great exhibitions must be invited to help. In every direction, whether of finance, of space or of arrangement, the policy must be very bold.—A F.R.H.S.

Poisonous plants in the conservatory.—Being interested as a medical man in this question, and also as an amateur horticulturist who frequently gets a rash on the hands when repotting Primula obconica, I am anxious to obtain information from others as to whether they have experienced similar effects when handling plants of other species. At the present time I do not happen to have P. obconica in my greenhouse, but this week the same rash appeared after manipulating P. sinensis for seed. If any of your readers can favour me with their views on this matter, or state if they have found similar uncomfortable phenomena after handling other plants, I should feel greatly obliged, and the knowledge would doubtless be appreciated by many who read your very interesting and practical journal.—Haywards Heath.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

CUCUMBERS.—These will be growing freely now, and every encouragement must be given the plants. Nothing suits Cucumbers better than plenty of moisture about the house. At this season syringe freely overhead and keep the floors well damped down at all times of the day and until the last thing at night, when the fires are banked. Frequent top-dressings should be given to promote surface roots. Various mixtures are recommended, but half fibrous loam and half stable manure will be found excellent. The night temperature should be 60° to 70°.

Melons.—The earliest-planted Melons should by now have set all the fruits that they are intended to carry and be swelling rapidly. Syringe often and keep up a moist atmosphere to prevent any attack of red spider. This pest is bound to appear if the house is allowed to get dry very often; therefore the necessity of keeping the air damp is apparent. Give the plants an occasional top-dressing of good loam, with a little fertiliser added. The night temperature should be maintained at 65° to 70°.

Strawberries.—All plants should be taken out of the plunging-beds and started. Those that are intended for the latest batch may be placed in cold frames. It is not advisable to grow them too close to the glass now, for they are almost sure to be attacked by red spider. Syringe all plants freely until the flowers open, and again when the fruits are set, keeping it up till they begin to colour.

Kitchen Garden.

Globe Artichokes.—Owing to the severe winter these have suffered badly in many gardens. Here they require no protection whatever during winter, and are now healthy and strong. To make new plantations the sucker growths should be taken off and replanted in heavily manured quarters. They may be put out in rows 4 feet apart and 3 feet from plant to plant, or grown from seed, sown in boxes, the seedlings being transplanted when large enough and finally planted out as advised for suckers.

French Beans.—An early sowing of Ne Plus Ultra may be made on a warm, sheltered border. Draw the drills 4 inches deep and 2 feet apart, placing the seeds in 4 inches apart. Give a little protection when they come through the soil, as the least frost will cut them down. Fir branches answer the purpose well.

Flower Garden.

Wallflowers.—Seeds of these should be sown now to obtain good plants for the autumn. In many cases they are left to take care of themselves. This is a great mistake, as they require liberal treatment, and when this is given, good healthy, sturdy plants are the result. Sow the seed thinly in the open borders in drills 12 inches apart. As soon as the plants are large enough they may be transferred to well-manured ground. Plant them in rows 18 inches apart and 12 inches from plant to plant. Canterbury Bells, Sweet Williams, Foxgloves, Verbascums, Aquilegias and Pyrethrums should be sown in boxes and placed in cold frames. When the seedlings are large enough to handle they may be pricked off into frames and kept shaded for a few days. When the plants have attained a fair size transfer them to nursery beds. This is a little more trouble than sowing the seeds in the open and letting them take their chance, but one is amply repaid by the ensuing results.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Wallflowers.—To have really fine Wallflowers it is imperative that the seed be sown during the last week in April or very early in May. By sowing thus early, fine bushy plants are certain before winter sets in. Sow in shallow drills, and as soon as the seedlings are 4 inches high transplant to a vacant border in the kitchen garden. The ground from which early Potatoes have been lifted is admirable for setting out the Wallflowers. No digging is necessary; merely hoe and level the surface, and plant out with a dibber 9 inches apart in the rows and 1 foot between the rows.

Other Biennials.—Strictly speaking, the Wallflower is not a biennial; but as it is universally grown as such and succeeds best when so treated, it is very convenient to term it a biennial. Some other plants usually treated in the same way are also perennial. Myosotis and Campanula pyramidalis are always most satisfactory if raised annually, and the present is a good time to do so. They do quite well if sown on a bed of fine soil in the open air; but I think they are as well if raised in boxes set in a cold frame. This plan has several advantages. The work of sowing and pricking off can be done during wet weather, and the seeds usually germinate more freely when so treated. Other good biennials for present sowing are Lychnis coronaria atrosanguinea (Agrostemma), Coreopsis grandiflora (this, if sown in February, flowers well the first season), and Canterbury Bells.

Primroses and Polyanthuses.—Those who may not yet have tried the raising of these fine spring flowers from seeds should lose no time in giving themselves a treat by doing so. There is no comparison between plants raised by division and those raised from seed. The latter are so much more vigorous that their blooms are usually double the size, with fine long footstalks which make them valuable for cutting. Of course, the florist might object that the flowers of some were "pin-eyed" and others not smooth enough on the edges; but to the bulk of genuine flower-lovers these trifles are of very little account. Select a first-class strain of the large-flowered type and sow the seeds at once in boxes of very light soil. The most suitable compost is three parts leaf-mould, two parts loam and one part sharp sand. Set the boxes in a frame and keep well shaded until the seeds have germinated. Even the very best seeds appear irregularly, some showing within three weeks, others not in as many months.

Kitchen Garden.

Vegetable Marrows.—Seeds should now be sown for the main crop of this vegetable. Too early sowing is a mistake, for it is never safe to plant out until the advent of June unless frames can be spared to place over them for a few weeks. Place five seeds in a 5-inch pot and set in a warm house. Pot off singly when large enough, and after they have fairly taken to the new soil remove to a cooler house, and eventually to a cold frame.

Kidney Beans.—Where room in a cool house or frame can be spared, it pays to raise the first sowing of this useful vegetable in pots or boxes. By so doing several weeks will be gained and very fine early crops will be had. Ne Plus Ultra is a good reliable sort for this method of culture.

Plants Under Glass.

Cinerarias.—Sow seeds of these now. A little heat may be given until germination takes place, but afterwards the cooler the treatment the better the results.

Tuberous Begonias.—Continue to pot on these as they become ready. Care must be taken not to put too much sand in the soil. When much sand is used the mite is almost certain to gain a footing.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

A FAMOUS PRIMULA.

VARIATION IN COLOUR AT MESSRS. VEITCH'S FELTHAM NURSERY.

THE great variation in colour which has taken place in Primula obconica during the last few years has been quite a revelation to those who have been in the habit of growing the old type of this plant. Instead of the small dingy white flowers, we now have at least a dozen good distinct and beautiful colours. This variation and improvement was particularly noticeable when we visited Messrs. James Veitch and Sons' nurseries at Feltham a few weeks ago. Here was a house at least 100 feet long with a stage 4½ feet wide on each side, and the whole of this space was occupied by the large-flowered varieties of this plant arranged in masses of one colour, and which Messrs. Veitch catalogue as Primula obconica grandiflora. The plants provide a feast of beauty such as one seldom meets with so early in the year, and it was difficult indeed to realise that all the beautiful shades seen there had been derived from the old Primula obconica.

Perhaps the different shades of rose and crimson were the most beautiful of all; but in addition to these there were some really good pale blue flowers, pure whites and a very good clear crimson. It is possible that before many years have elapsed these Primulas will almost, if not quite, take the place of the old Chinese Primula, for not only are we getting the same range of delightful colouring, but the size of the flowers has been very much increased, and, of course, the plants are very much freer in flowering. Then, again, they have long, slender flower-stems, which render them excellent for cutting, and as they last a long time in water, no doubt these new varieties will in the future be largely grown for this purpose during the winter months.

One specimen that we noticed at Feltham was grown in a 4½-inch pot, and this had fifteen large trusses of fully developed flowers in addition to a number of younger flower-stems which could be seen pushing their way through the mass of leaves below. The plant shown in the illustration is in a pot of the size mentioned, and gives a good idea of the way the plants were flowering. We are indebted to Messrs. Veitch for the photograph from which the illustration was reproduced. Fortunately, the culture of these plants does not call for any special care, the seeds being sown about midsummer and the plants grown under quite cool conditions. Their culture has, however, been fully dealt with in THE GARDEN, and it is not necessary to refer to it in detail here.

In addition to the houses of Primula obconica, we saw a very fine group of the beautiful Primula kewensis at Feltham, the peculiarly dainty rich yellow blossoms being arranged in tiers on long stems, the fragrance of the flowers reminding one very much of the Cowslip. It is interesting to record that until a few years ago this Primula was never known to seed; but one plant was eventually found seeding at Feltham, and since then the progeny of this plant have seeded quite freely. Primula kewensis farinosa was growing alongside the type, and is a counterpart of it except that the leaves, flower-stems and calyces are covered with farina, which gives the plant when seen at a little distance quite a cloud-like appearance.

There were a great many other interesting things to be seen at Feltham, but space will not allow us to describe these in detail. We may, however, mention that they included a very beautiful series of hybrid Gerberas, which were just beginning to flower, and of which we published a coloured plate recently. Then there were quite a number of distinct types of Cinerarias, the one that appealed to us most of all being Feltham Beauty. This is a lovely Cactus-flowered strain of branching habit which embraces flowers of Cambridge blue and rich Oxford blue, this being produced in profusion and rendering the plants most valuable for decorative purposes at this season. The strain received an award of merit from the Royal Horticultural Society when shown a few weeks ago. Then there was Matador, a beautiful crimson variety and a counterpart of the well-known Antique Rose in habit and form. Both this and Antique Rose are of dwarf, compact habit, and have large flowers. Perpetual-flowering and Malmaison Carnations, Lapagerias, Chrysanthemums, Cannas, Streptocarpi and Begonias were all seen in a flourishing condition, and the whole of the plants at Feltham were splendidly grown.

PRIMULA OBCONICA GRANDIFLORA AS GROWN BY MESSRS. VEITCH AT FELTHAM.

THE ROSE GARDEN.

BEDDING ROSES PLANTED IN CONJUNCTION WITH SUMMER BEDDING PLANTS.

AS far back as 1849 a pamphlet appeared from the pen of the late Mr. William Paul giving graphic descriptions of the beautiful Rose gardens that abounded at that day in the county of Hertfordshire. Among the gardens described was that of Poles, near Ware, the seat of R. Hanbury, Esq., and a Mr. Barnes had charge of the garden. Mr. Barnes was unquestionably a far-seeing man, for we find him recommending the practice he adopted of planting freely the autumnal Roses in conjunction with summer bedding plants, with which they group admirably and produce a splendid effect. Mr. Barnes recommended this plan as a great saving of time and labour at a season when they are invaluable, and also as a saving of expense to the proprietor.

If the gardeners of sixty years ago could see the value of bedding out with Roses, there should be no hesitation in largely adopting the practice to-day. And yet we see many beautiful gardens using the same old stereotyped bedding stuff that presents a most miserable appearance in autumn, when beds of Roses would be in their gayest dress. I do not condemn bedding plants in moderation, but I certainly think where the garden is at all limited bedding Roses would be far more acceptable. To obtain the best effect one must plant the Roses closely, so that very little of the soil is seen; then prune hard. The result will be a magnificent display of splendid Roses, providing always that the best sorts are chosen, and, above all things, see that the beds are well prepared. To have a thoroughly healthy growth hard pruning is essential, and I believe in planting the bushes closer together than is ordinarily recommended. About 12 inches to 15 inches apart is ample for a year or two; then we obtain a grand display. Prune back hard each spring, treating the Roses almost like herbaceous plants, and there will be a fine, healthy, regular growth springing up from the base of the plants. With me the annual growth of Roses such as G. Nabonnand, Peace and Dr. Grill is 3 feet to 4 feet in length, so that one need not hesitate to cut back hard if the plants produce growths like this. I know moderate pruning has many advocates, and personally, were it a question of treating isolated bushes, I would recommend it, but for bedding purposes the more drastic pruning is best. In a season like the present, when the growth of Tea Roses has withstood the winter remarkably well, there could be a system adopted of partially tying over some of the growths when they are planted far enough apart; but the beds do not present the nice, full, even appearance that can be obtained by severe pruning. There is also another point to remember. By this hard pruning we cut away the forward growths in which may lurk insect foes, and we also, to some extent, escape the vexations of the njuries caused by May frosts. P.

THE FLOWER GARDEN.

A TANGLED ROCKERY.

THE accompanying illustration shows what can be done with a stiff clay bank and a swampy walk below. My lady gardener and I made two very low terrace walls with rough stones, then mixed road-sidings and leaf-mould with the clay, and laid the old stone roof-slabs on fine ashes, which made good drainage. Now, from March to November we have a blaze of colour, beginning with Aubrietia, Arabis, Anemone fulgens and Iris reticulata. Later a glorious pink effect is produced, as seen in the illustration, by Rock Roses, rose-coloured Larkspurs, giant chamois pink Antirrhinums, Sweet Williams and Verbena Miss Willmott against a contrasting groundwork of the grey foliage of Cerastium tomentosum.

HENRIETTA L. HAY.

Tanglewood, South Godstone.

THE FASCINATION OF THE CROCUS.

AUTUMNAL CROCI.

(*Continued from page 190.*)

EVERY garden has its own character and requirements, so in offering suggestions for the planting and grouping of Crocuses I do so with the expectation that many of my readers will not feel inclined to follow my advice. I think one reason why Crocuses do not flourish and increase in many gardens is due to the fact that they are often used as edgings to beds that are tidied up and planted with summer-flowering subjects before the Crocus leaves have died off. There is no denying the fact that in May and early June the long, flabby, yellowing Crocus leaves are untidy, and if in so prominent a position as the edge of a bed will often vex the righteous soul of the tidy gardener. I have not much sympathy with such an one though, for I always feel he or she has not much sympathy for the plants, and regards them too much as garden furniture and mere producers of colour rather than as living creatures. The hope for a glorious resurrection next season that springs from the observation of a slow and steady ripening off of the foliage is a pleasure unknown to him who is only anxious to get it all cleared away, or tied up in chignons, as one sometimes sees Crocus leaves treated, to make room for a row of blue Lobelias.

If one cannot allow the plants time and space to mature in the forefront of one's borders, it is a good plan to use the commoner and strong-growing Croci to fill up spaces under deciduous shrubs, or behind and among tall herbaceous plants, towards the backs of borders. I have thus used many of the large and showy vernus forms and the old Dutch yellow. I also think sparrows do not attack them so ferociously as when they are so easily reached from the front of a bed.

A good broad band of Crocuses looks very well at the back of a herbaceous border that is backed by shrubs or a Yew or Holly hedge. Like most bulbous plants of small stature, they look better in grass than in any other position. But here again arises the difficulty of being unable to mow over them until the end of May at the earliest.

In many gardens a lawn adjoins a meadow or the park, being separated by a light iron fence. The mowing-machine seldom cuts cleanly up to this fence, and in many places I have admired the effect of Harebells and Lady's Bedstraw that have found a congenial home in this peaceful strip. It struck me that Crocuses might also find a haven here; and a long row of vernus varieties that I tried has been such a success that I hope to plant more in this way next autumn and to induce others to do so. I mixed three varieties, Mme. Mina (lilac striped), Mont Blanc (white) and purpureus grandiflorus (deep purple), and by getting a preponderance of the purple for a stretch of a few yards, and then, after a length of a fairly even amount of all three, letting the white, with a few lilac among them, give a lighter tone, the stiffness that might easily arise from such a straight band can be done away with.

All the vernus forms, so far as I have tried, give good effects when mixed; but I do not care for the yellow Dutch with any other, unless it be a few pure white vernus at the edge of a drift of the yellow, and leading on towards a mass of the same white form. The yellow is generally at least a week or ten days earlier in flower than the vernus forms, so it is not in every season that such an effect of yellow and white can be relied upon. I have found tomasinianus so far to prove the most satisfactory of the wild species for spreading and holding its own when planted in grass, and of autumnal ones zonatus and pulchellus.

E. AUGUSTUS BOWLES.

(*To be continued.*)

PLANTS TO USE WITH SWEET PEAS.

THOSE who use Sweet Peas for indoor decorations—and who is there that does not?—will know only too well how difficult it is to secure enough of the plant's own foliage to go with the flowers.

As the time for sowing seeds of many annuals is now with us, it may be useful to remind those who grow Sweet Peas of two exceedingly useful plants that will provide an abundance of suitable material for arranging with the sprays of flowers. The first of these is the charming little Cloud Grass (Agrostis nebulosa). It forms a veritable cloud of very slender shoots and tiny flowers, and is ideal for garnishing vases of Sweet Peas. Seeds can be procured cheaply, and may be sown outdoors in April where the plants are to grow. It prefers well-cultivated and rather light soil. The seeds must be scattered thinly and covered with not more than a quarter of an inch of fine soil.

Another excellent plant for the purpose under consideration, and which is known to many, is Gypsophila elegans. This is an easily grown annual plant, and is cultivated largely in France and in this country for Covent Garden Market. It grows about 18 inches high, and forms a rather dense yet graceful mass of thin shoots, which are freely studded with creamy white flowers. There is also a rose-coloured variety, but the white is the most generally useful. Like the Agrostis, seeds of this may be sown thinly in the open early in April. The plants grow quickly and will thrive in almost any good garden soil. Though of such slender growth, the shoots last fresh in water for a good length of time, and can be arranged with nearly any kind of flowers as well as Sweet Peas.

A combination that I tried last year, and which was admired by many friends, was white Sweet Peas and the sky blue Nigella Miss Jekyll. The beautiful feathery involucres of this charming Love-in-a-Mist formed a pleasing setting to the Sweet Peas, and the blue of the flowers harmonised very well with the white. Doubtless it could be used with some other colours should the necessity for doing so arise.

H.

SWEET PEA CHAT.

YOUNG PLANTS.—There have been a few complaints that some varieties have not germinated as well as could be wished, but they have done as well as could be expected considering the weather at the harvesting season last year. Although there have, undoubtedly, been losses, the majority of growers sow so thickly that it is rather an advantage than the reverse when some of the seeds fail to start, since it relieves the necessity for thinning, which in only rare instances is carried out as it should be by amateurs and cottagers. Unfortunately, they cannot harden their hearts sufficiently to remove the young plants in the very early stages, with the result that there is a decided element of weakness from the start; and because the plants do not grow as vigorously, produce as splendid flowers and continue blooming over a protracted period, the cultivator blames the soil, the seeds or the season rather than himself, who is almost invariably the sole cause of the disappointment.

It is occasionally said that as exhibition flowers are not specially required, it is neither necessary nor desirable to give the plants the full amount of space; but this is by no means the case, for it is only those that have made all their progress under the influences of unobstructed light and fresh air that can show just what powers of floriferousness a Sweet Pea possesses.

A TANGLED ROCK GARDEN.

Even in the most untoward of circumstances the plants should never be closer than 9 inches, and it is almost always preferable to allow them 12 inches in the lines. To these distances the thinning should be done as early as possible, and subsequently a sharp look-out must be kept to ensure that slugs and birds do not carry the thinning process too far.

It is imperative, too, that twiggy sticks shall be put to the young plants immediately they are well through the soil, and it is wise to attach them to these supports with a secure yet free ligature; not only will the youngsters receive support, but also protection from cold winds from these small sticks. This is work which must be pushed on now, as also must the permanent staking of earlier rows as they demand it; the earliest from pot-sown seeds will have been done by this date.

The preference with amateurs is still given to natural wood stakes, and there can be no doubt that good Hazel sticks want some beating, but no other wood comes up to them, and where the slightest difficulty is experienced, growers should turn without hesitation to large-meshed galvanised wire-netting as being perfectly efficient. It is obviously rather more expensive at the outset, but if it is properly cared for it lasts so long that it becomes much cheaper than stakes in the end. It should be attached securely to stout uprights, and if the bottoms of these are creosoted, charred or soaked in paraffin before use they will be splendidly preserved and will not rot in the soil. All things considered, it is perhaps advisable to carry the plants up 1 foot or 2 feet of their growth on sticks and thence train them on to the wire; but there is no substantial objection to placing them to the wire from the preliminary stakes which usually rise 1 foot from the ground.

Assuming that they grow 2 feet on sticks, then two widths of 3-feet wire will answer in many instances; but where it is known that the plants invariably go higher than this, then wire can be used accordingly. As far as mesh is concerned, it should not be less than 4 inches, and if it is bigger so much the better. One sometimes hears wire objected to on the score that it will create an aspect of formality, but this is not so, since healthy, vigorous Sweet Peas will so clothe their supports that without close looking it will be impossible to tell on what they are growing.

Many cultivators are keen to get a mulching spread over the roots early in the season, as well to afford food as warmth; but as far as the latter is concerned it is an error, and for the former not worth consideration. Ground that is kept surface hoed to the end of May or early in June will be warmer than that which is mulched with manure; and if the soil was properly prepared at the outset, it is quite certain that it will contain an abundance of readily available food to keep the plants in excellent progress until that time. Use the flat hoe and leave the mulching until later. SPENCER.

AURICULA PHYLLIS DOUGLAS.

ONE of the most perfect Auriculas we have seen was shown by Mr. James Douglas, Great Bookham, Surrey, at the meeting of the Royal Horticultural Society on April 4 last, when it received an award of merit—and we write the "most perfect" having in mind Mr. Douglas's great work among the Auriculas—that is testimony to the beauty and worth of the variety we are thinking of. It is an alpine Auricula, the flowers of exceptionally fine form, and the colour is of a purple shade with a clear white centre.

THE NEW ALPINE AURICULA PHYLLIS DOUGLAS.

It is a flower that for colour, form and fragrance should be highly prized.

DAFFODILS AND TULIPS AT VINCENT SQUARE ON APRIL 5.

I REFERRED to the exhibits of Mr. A. M. Wilson and Lissadell in my notes last week.

Messrs. Barr and Sons had a large and interesting group, inasmuch as it received several new additions during the course of the day. Among these I must mention the beautiful large Minnie Hume type Leedsii 532, which was described in Mr. Wilson's collection last week; also the fine deep yellow trumpet Michael. Taking other new ones first, the following were among the best: An unnamed giant yellow incomparabilis self, which might very well be called Yellow Queen, as representing a type of yellow counterparts of the famous White Queen. Victory was another large yellow incomparabilis, but it had a more pointed perianth and a shallower cup. Sparkler is obviously one of the many M. J. Berkeley seedlings that are now coming on the market. They have for the most part a good deal of red in their cups and long pointed perianth segments. Although not show flowers, they are valuable for the garden on account of their earliness. Another flower with no name was a glorified Albatross, but with wider and more overlapping perianth segments. Mace Bearer was very attractive. It had a good deal of the look of Bernardino in its composition, but instead of the red of the cup being suffused all over it, it was here gathered into a wide, well-defined edge, leaving the interior a dull, deep yellow. Mermaid was a fine giant Leedsii with a more pointed perianth than is usual in this class. Bedouin, which appeared for the first time last year, is certainly a "good thing." It reminds one very much of the good old Crown Prince in its texture and colouring. Among the large number of older kinds, Lord Roberts, White Lady, Homer, Horace, Eileen Mitchell and Buttercup were particularly good.

Messrs. Cartwright and Goodwin had not such a large exhibit as usual. Their group on the 5th was mainly noticeable for two reasons. First, it introduced to the Daffodil public a few rough-haired gentlemen like Shock-headed Peter, Powder Puff, Rags and Tatters, Whirligig and Kallikrates. They were raised by Mr. W. F. M. Copeland, and are some of his "doubles." The last-named is wholly yellow, while the others have a good deal of red about them, Powder Puff being the reddest. They are of the loose Argent type of flower. These loosely-put-together blooms will be of use for house decoration as a change from having all singles. The other feature was its lesson in earliness. Mr. Goodwin told me that Armorel, Sailor, Blackwell, Dolores, Marigold, Alice Knights and Southern Star had all been cut from the open in his grounds near Kidderminster. Before leaving this group, I would like to draw my readers' attention to a grand large yellow trumpet, Master of Balliol, and a very beautiful cupped variety, Ayacanora, which was a very pale yellow self, and in its general look featured Frank Miles. If this proves itself to have a good constitution and to increase quickly, it should have a future.

Mr. John Pope, whom we were glad to see among us again, had a small group of interesting things; Estelle was probably the newest. I remember it very well from last season. It has a shape of its own and looks like a giant spider walking, the handsome red cup being the body and the yellow curiously bent perianth like the

NEW HARDY HYBRID
RHODODENDRON DR. STOCKER

Hudson & Kearns, Ltd., London.

egs. Van Waveren's Giant, Torch and Gold Fish a pretty, small, deep yellow trumpet) were also noticeable.

Messrs. Carter had a very effective exhibit of spring flowers arranged in the shape of a formal garden, with beds on and round a grass lawn. The mass of superbly grown King Alfred at once caught one's eye. As I looked at it I said to myself, "What a pity it will not grow anywhere like Emperor." There is no use disguising the fact that in many gardens after the first year it is a miserable failure.

Mr. F. Lilley brought over a collection of popular varieties. There were a good many of the Dutch trumpets, one of which I do not remember to have seen before. It was a fine large flower, in appearance midway between Emperor and Glory of Leiden, of good substance and of excellent proportions. The weak part about it was its name, Vesuvius, which is that of the poor form of Lucifer. I would respectfully suggest that it might be changed to Etna, and given such a name I feel sure a very bright future awaits this excellent variety when it becomes known. Fairy Queen, the dainty little Leedsii which always looks so fresh and charming among other flowers; Lady Godiva, the white-perianthed Barrii; and Diana, which I always associate with the late Mr. Bourne, as one of his favourites, were all staged in good condition.

Messrs. R. H. Bath had a good many Darwin and May-flowering Tulips and a few Daffodils. Among the latter there were three or four blooms of their bright-coloured Brilliancy, which is a larger and brighter Barri conspicuus, and Mrs. Vincent, one of the most beautiful of all the old-time white trumpets. The Tulips included Picotee, Melicette (Darwin), Mrs. Moon, Le Rêve and Isabella. This last variety is very good indeed for growing under glass, and as it can be bought at a low figure I would advise a trial another year. It is rather a long-shaped bloom, which in its young state is a primrose yellow suffused at the edge with rose; this with age gradually extends over the whole flower. JOSEPH JACOB.

A USEFUL HARDY ANNUAL.

AT this season, when the seeds of so many hardy annuals are being sown in the open ground, it may be of use to draw attention to a member of the Toadflax family which has for many years been a favourite in English gardens. This is Linaria bipartita, a rather slender-growing plant that attains a height of about 1 foot, and which produces its pretty Antirrhinum-like flowers in profusion during the summer and early autumn months. The colour of the blossoms is a sort of violet purple, this being relieved by the golden hue of the throat. The plant was introduced to this country from Portugal as long ago as 1815, and although it is not an annual to grow on a large scale, a few clumps of it towards the front of the border are very attractive. In addition to the type there is a white-flowered variety, which is shown in the accompanying illustration. It is a counterpart of the ordinary plant except in the colour of its flowers, and is usually listed by seedsmen as L. bipartita alba. The plants will thrive in almost any well-drained soil, but preferably one of a rather sandy character.

COLOURED PLATE.

PLATE 1398.

HARDY HYBRID RHODODENDRON DR. STOCKER.

THE last decade has witnessed the introduction of many excellent Rhododendrons, hybrids and species, and not the least beautiful among them is the hybrid which is shown in the accompanying coloured plate, and which is named after Dr. Stocker, in whose garden we believe it was raised. Anyway, it was shown by him before the Royal Horticultural Society on March 27, 1900, when it received an award of merit, the plant at that time being regarded as a greenhouse specimen only. Since then the stock of it has been considerably increased, and it has proved to be perfectly hardy. One of its parents is the beautiful Himalayan Rhododendron Aucklandii, and the other R. caucasicum album, and it is from the last-named that the variety Dr. Stocker undoubtedly derives its hardiness.

A USEFUL HARDY ANNUAL: LINARIA BIPARTITA ALBA.

Messrs. Robert Veitch and Sons, Limited, of Exeter now have a large stock of this beautiful Rhododendron, and last year they staged a wonderful mass of it at one of the Royal Horticultural Society's fortnightly shows, and it is to this firm that we are indebted for the flowers from which the coloured plate was prepared. In addition to its usefulness as a hardy flowering shrub, this Rhododendron is an excellent one for forcing, the flowers opening quickly with very little heat. When flowered under glass the blossoms are pure white with a few reddish brown spots at the base, but when it flowers outdoors at its natural season, *i.e.* May, the inside of the flower is white, but the outside has a tinge of russety red which we think adds to the charm of the blossoms.

Not the least pleasing and distinct feature about this Rhododendron is the colour of the flower-stems, this being a sort of delicate red hue and contrasting well with the purity of the blossoms.

TREES AND SHRUBS.

THE DOUBLE-FLOWERED BLACKTHORN.

DURING early April the double-flowered form of Prunus spinosa (Blackthorn) is smothered with white flowers, which last in good condition for about a fortnight. When out of bloom there is little by which it can be distinguished from the ordinary Blackthorn or Sloe of our hedges, except that it is perhaps of somewhat denser growth, a fact which may be attributed to cultivation and a certain amount of pruning while young. The flowers are similar in size to those of the type, but have an abnormal number of petals. Its showiness and adaptability for poor ground warrant it far more extended cultivation than it receives at the present time, for it is quite as suitable for planting in a mass in the wilder parts of the park as for forming a specimen on the outskirts of a lawn. Unfortunately, it is somewhat difficult to propagate, and really needs grafting on stocks of the type if the best results are desired. Two year old wood is preferable to one year old for scions, and grafting should be done indoors. Occasionally a cutting or two may be got to root, though it is rarely that cuttings succeed. It may be grown in two ways. Grafted standard high it forms a low, small-headed tree, while when grafted low it forms a dense bush, which may either be used for planting in beds or to form isolated bushes. D.

A RARE HARDY SHRUB.

(NEVIUSIA ALABAMENSIS.)

THIS is a rather rare shrub from Alabama, where it is known by the common name of Snow in Summer. In the United States it is highly thought of as an ornamental flowering shrub, the blossoms being stated to be white and borne profusely. So far as profuse flowering is concerned, no objection can be raised to it in England, but instead of being white, the flowers are usually tinged with green. It has, however, been found to be a very useful shrub for forcing, for it may be had in flower in February, and the green tint of the blossoms almost disappears under glass. Growing under natural conditions it attains a height of 4 feet or more, and forms a large bush. The leaves are more or less ovate, but offer no particular attraction. Under normal conditions the flowers appear about the end of May. They are peculiar by reason of their fringed appearance, which is due to very narrow petals. Cuttings taken in summer root readily, and plants grow vigorously in loamy soil. Plants intended for forcing should be kept to a few stems to encourage lightness of habit. When from two to three years of age they are at a useful size; but fully grown specimens taken up from an open border are quite as useful. D.

GARDENING FOR BEGINNERS.

HOW TO PLANT CABBAGES AND ONIONS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—During the present week is a good time to make a sowing of Beetroots for the first crop, selecting the warmest position for the bed. For this sowing choose one of the several excellent Turnip-rooted varieties now on the market, as these turn in for pulling earlier than the long-rooted sorts.

1.—THE WRONG WAY TO PLANT SUMMER CABBAGES. WHEN PLANTED IN THIS WAY THEY ARE DISPOSED TO GET TOP-HEAVY AND FALL OVER ON THEIR SIDES.

Make drills 1½ inches deep and 1 foot apart, and drop about three seeds at intervals of 10 inches in the rows. These, if the seed is good, will give five or six plants at a station, which must be thinned at an early stage of their existence to one at each place. Deep sowing is the cause of many failures with Beetroot seed, a fact that even many professional gardeners frequently overlook. The long-rooted varieties for the main crop may be sown a fortnight hence, allowing 2 inches more each way. Make other sowings of Peas to succeed the early and second-early crops, and at this date 2 inches is not too deep to sow. Any that are just showing through the ground must be protected from sparrows by placing netting or black cotton over them. Keep the Dutch hoe going freely among all growing crops, as, in addition to destroying young weeds, this will allow the air to freely enter the soil and so benefit the plants.

Flower Garden.—There is a general tendency among amateurs to cut away the foliage of bulbous plants as soon as these have finished flowering, their excuse for doing so being that they are untidy. Possibly this may be so in a few instances, but generally the untidy idea is much distorted. In any case it is bad for the plants to thus denude them of their food-making apparatus. We must remember that it is after they have flowered that such plants as Tulips, Narcissi and Hyacinths build up their bulbs for another year, storing food in the tissues and even forming in embryo the flowers that are to give us pleasure next spring. In this important work the leaves play a primary part, and for this reason they should, wherever it is at all possible, be left to die away as naturally as possible. Where they must be removed before this happens, they should be allowed to remain at least three or four weeks after the flowers have faded. I have been tempted to enlarge on this subject somewhat, as, judging by the enquiries one receives, the point is a moot one with many amateurs.

Rose Garden.—I find that aphides or green fly are already commencing their work of sucking the juices from the tender young shoots which have recently sprouted, and although they are not present in very large numbers, it is most essential that they be promptly exterminated. I know of no other pest in the garden that multiplies so rapidly, but happily it is one whose destruction it is comparatively easy to bring about. At this early stage, when the insects are not numerous, nothing beats the finger and thumb treatment, drawing these carefully from the bottom of the shoot to the top and incidentally crushing the insects in the process. A little water kept close by in which to occasionally rinse the fingers does away with what little unpleasantness there may be connected with this method. Maggots do not seem to be very prevalent this year, but a watch must be kept for them. Wherever a shoot shows signs of being eaten, a close inspection should be made for the maggot, which will most likely be found ensconced in the heart.

Greenhouse. — Many amateurs grow such hard-wooded plants as Ericas and Azaleas in their greenhouses, and very useful plants they are; but more often than not their treatment is such as to render them very poor representatives of their race, and many object to it by refusing to live. The wrong management of such plants can usually be attributed to two items in their culture, viz., watering and repotting. The former is frequently overdone, or else done so intermittently that the roots get dry at times and quickly perish. But it is to repotting that I wish to draw attention specially now, as from now onwards is a good time to carry out the work, directly after a plant has flowered being the best time to deal with it. New growth is then usually active. Pots only one size larger than those the plants already occupy must be used, and these must be scrupulously clean and sweet. Drainage must be thorough, and the soil should consist of peat three parts and silver sand one part, with a little charcoal added. These hard-wooded plants all like a firm rooting medium, and care must be taken to make the new soil as firm as the old, using a flat potting-stick freely for the purpose. Give a watering, then stand the plants in a shady corner of the greenhouse for a week or ten days and lightly spray them overhead morning and evening.

A. A.

TRANSPLANTING CABBAGES AND ONIONS.

THE fine weather of late has reminded the beginner that many plants need to be taken in hand very soon if good results are to accrue. In the present instance it is the writer's desire to call attention to two vegetables that are extremely popular with most amateurs, and that are generally welcomed in the kitchen in their season. The Cabbage will grow quite satisfactorily in most soils, but will succeed better when soil is rich and deeply worked. Soils o light and sandy nature are not good for Cabbage; but by the liberal incorporation pig or cow manure, or both, and a dressing lime this subject may be grown very well inde On the other hand, soils of heavy texture sho be thoroughly well worked, and quarters tended for Cabbage on land of this character better when dug in the winter and left in ro condition on the surface for the frosts to pulve and sweeten. There may be readers who h not even yet dug the quarters devoted vegetables in their garden; and if such is the c they should lose no time, deeply digging the forthwith and planting as soon as conveni afterwards.

Many gardeners make a rule to grow Cabba on ground that in the previous year was devo to Onions, and this is a very excellent ru because to grow the Onion well the quarters invariably heavily manured. Where the gro has a bed of seedling Cabbages in his own gar it is a great advantage, as the plants suffer l in the transplanting than is the case with pla coming from a distance. When planting fr one's own bed of young plants it is possible lift each one with the aid of a trowel, so tha good quantity of soil and roots may be lift intact, and the plants may then be transfer with little disturbance of the roots to th permanent quarters.

In small gardens plant Cabbages in ro 18 inches to 2 feet apart, and allow a foot rather more between the plants in the ro Lift the plants with care, and transplant in ho of sufficient size to embed them thoroughly a firmly. Unfortunately, so many growers have purchase their young plants in the spring, a not seldom they arrive in anything but a fre condition; the wonder is that they survive t ordeal so well. There is scarcely any soil on t roots, and the latter are often shrivelled a damaged by exposure to the sun and air. Sho the plants be acquired overnight, it is a go plan to heel them in and subject the roots t good watering; in the morning they have usua recovered, and planting may then proceed apa

Fig. 1 shows the wrong way to pla Cabbages. This want of method is quite common failing with the inexperienced vegetab grower. In the course of a few weeks, by whi

2.—THE CORRECT WAY TO PLANT SUMMER CABBAGES. NOTE HO THEY ARE EMBEDDED FIRMLY TO THE BASE OF TH LOWER LEAVES. THIS METHOD ENSURES FIRMNESS AN RIGIDITY.

time the plants will probably have made co siderable growth, there will be some risk of t plants becoming top-heavy and falling over their sides, and in wet and windy weather th

3.—THE ABOVE ILLUSTRATION REPRESENTS THE WRONG WAY TO TRANSPLANT AUTUMN-SOWN ONIONS. A CAREFUL OBSERVATION WILL SHOW THAT THEY ARE PLANTED TOO DEEPLY. THE SAME APPLIES TO SPRING-SOWN ONIONS WHICH HAVE BEEN RAISED UNDER GLASS.

ate of affairs is almost certain to be brought bout. For this reason plant in the correct anner indicated in Fig. 2. The young Cabbage lants in this instance are set firmly, so that the wer leaves form the base. By adopting this ethod of planting rigidity is ensured, and the lants are better able to resist wind and rain hen the hearts are well formed.

Autumn-sown Onions are planted in large umbers in many gardens, as there are house-olds where an early crop of large Onions is alued in July and August. Onions succeed est in soil that is not over-heavy. It is of the ighest importance that the soil should be rich nd lasting, and also that it should be friable and asy to control. To achieve this end the quarters ught to be trenched in the winter and the soil ft in ridges, so that frost and atmospheric con-itions may both do their beneficent work of reparation. In the spring the quarters should e forked over, adding to the surface soil wood-shes, burnt vegetable refuse, old hot-bed manure, af-mould and the sweepings of the potting-ed, all of which will tend to lighten the soil nd make it friable for planting. Those who ave not yet got their ground ready must labour nder a great disadvantage, as no amount of orking the soil at this season will compensate r omissions of the past. Good Onions may be own, notwithstanding, if more than ordinary ins be taken in preparing the quarters at the esent time. Soot applied as a dressing when gging over the quarters is an excellent fertiliser r Onions.

Autumn-sown Onions are best planted in rows inches to a foot asunder, and from 6 inches to nches between the plants in the rows. Where e seedling-bed is in the grower's own garden, t with a trowel and transplant firmly and not any means deeply. More often, however, ese plants are purchased from the nurseryman, d consequently need more care and attention get them nicely established. Fig. 3 shows the ong method of planting. A careful obser-tion of this illustration shows that the Onions e planted too deeply, in which case the bulbs the Onions are less likely to be satisfactory, as the formation of a thick, fleshy neck is encouraged thereby. The correct method of planting is shown in Fig. 4. Here it will be noticed the young Onions are planted firmly so that the bulbs will develop quite easily, as the base of the stem is only just below the surface soil. The strong roots of these plants are sufficient in themselves to maintain the transplanted Onions rigid until new roots are made. These particulars apply with equal force to spring-sown Onions which have been raised under glass. D. B. C.

THE TREATMENT OF GLOXINIAS.

THESE are lovely plants for the greenhouse and conservatory during the summer and early autumn months, and also for the dwelling-room window. I remember seeing several very fine plants growing in a cottager's window once, and I went in to have a chat with the owner. He was an enthusiastic gardener and had a tiny greenhouse at the back of his own house, and in it he grew a wonderful collection of plants. Gloxinias are often given too much heat in the early stages of their growth. I have cultivated them throughout the summer months in cold frames, fully exposing them every day when the weather was fine, and both foliage and flowers were splendid. The colours of the latter were very brilliant, and the leaves of great substance and deeply veined.

The bulbs must be potted in a compost of fibrous loam one-third, and leaf-soil and peat two-thirds. When the subsequent repottings are necessary the peat may be left out, and some dried cow-manure substituted and used with the loam and leaf-soil.

It is wise to give a good watering directly the potting is finished, but afterwards, and until the pots are well filled with roots, watering must not be overdone. Feed liberally when the flower-buds form, and do not hesitate to expose the plants to the sunshine. SHAMROCK.

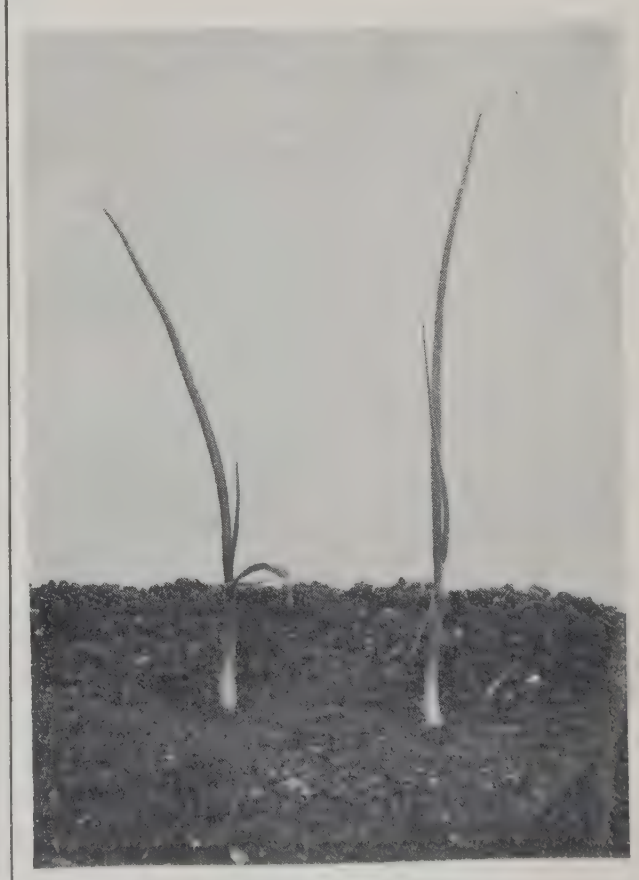
THE TOWN GARDEN.

THE MIXED FLOWER BORDER.—The mixed hardy flower border of bulbous plants and herbaceous perennials has its disadvantages as well as its compensations, the former not infrequently making their presence felt at the most inopportune moment, viz., at a time when it is desired or desirable to rearrange the borders, and the whereabouts of the bulbous plants, which so many neglect to label or to mark in any way, are for the first time discovered to be unknown. That this is no fanciful surmise on my part the many enquiries as to how best to deal with such a border amply testify, and it is referred to here that my readers may be wise in time. The rearranging of the mixed type of border I have in mind should always be anticipated a season in advance; then, by marking the positions occupied by the bulbous plants, the lifting of these would be possible in July in the ordinary way, and by drying them off the remodelling of the border could follow in October, when the whole of the plants could be laid down afresh and with a minimum of loss to both sets.

WHAT NOT TO DO.—A doctor, when prescribing for a patient, does not tell the latter not to swallow the medicine-glass or the spoon, though in gardening it not infrequently happens that "What not to do" is as of great importance as the directions as to what should be done. Now, in the mixed border of bulbs and plants, what should not be done is to lift the bulbs in their growing state and just drop them in clumps again into what one might call ready-made holes. The thing I know is done this way, and the reasons—or shall I say excuses—given are that "it is so convenient at that time," "I can so well see where they are" and the like, without studying the aftermath of it all or the disappointments or failures that are more or less sure to ensue. Hence it is advised to set about such work in a systematic way, and, in doing so, not merely ensure the safety of the subjects for a further term of years, but ensure also that the subjects having been treated rationally will respond in a similar way.

SOME PRETTY SPRING FLOWERS.—The Chionodoxas just now are sheets of rich blue difficult to describe, and the autumn-planted bulbs, by affording a successional flowering to the more fully established masses, just tell us what to do in future to get the longest possible return out of a solitary species or genus. The single Primroses, too, in many shades of colour are very charming, while Anemone blanda scythinica, lovely in blue and white—gentian blue buds and white flowers—is beautiful beyond compare. Hepaticas, too, in white, pink and blue, are a great gain in any garden where they thrive; and there is that inimitable flower of spring, Anemone robinsoniana, which is, perhaps, only surpassed by its still more handsome sister, A. r. atropurpurea. In cool and moist places undisturbed both are among the gems of the year, giving in April and early May low sheets of exquisite colouring such as the artist loves to see and to portray.

EARLY FLOWERING CHRYSANTHEMUMS.—These should now be in cold frames where the lights can be removed during the day, or even in sheltered positions in the open where a few degrees of frost will do no harm. Frost, indeed, does less harm to such things than does a rapid thaw, and particularly so where the latter is of an artificial character. We have had plants with ice in the points till 11 a.m., but, being protected by a wall and no sun reaching them till noon, the plants were not in the least harmed. It should be the aim of all to obtain short-jointed and sturdy plants for putting out; plants, too, that have been well hardened by exposure previously. A few good sorts are Carrie, Champ d'Or and Horace Martin, yellows; Goacher's Crimson; Bronze and White Massé; Nina Blick, red; Doris Peto and Roi de Blanches, white; Rubis, claret colour; Jimmie, crimson-purple; O. J. Quintus, pink; and White Quintus. These are September and early October flowering sorts, while Source d'Or and Lizzie Adcock are among the most decorative sorts for flowering somewhat later. E. H. JENKINS.



4.—THIS IS THE RIGHT WAY TO TRANSPLANT ONIONS. NOTE THAT THE BASE OF THE YOUNG PLANTS IS ONLY SLIGHTLY EMBEDDED, THE MASS OF ROOTS MAINTAINING EACH PLANT IN POSITION.

THE GREENHOUSE.

A PLANT FOR A COOL GREENHOUSE.

(FRANCOA RAMOSA.)

A GENERATION ago these plants were more extensively grown than at the present time. They are of very easy culture and form some of the most effective plants for greenhouses generally, and for a cool structure in particular. I remember seeing some very large old specimens when I first commenced my gardening career, and they furnished a lot of blossom during many months of each year. The young and the medium-sized specimens are, however, the most useful, and are readily raised from seeds.

During the summer months the plants are quite suitable for putting out as bedding subjects, but they must be retained in the pots and be gradually exposed when taken from the shelter of a glass structure. Seeds may be sown at once and the resultant plants grown on for flowering next year. For the seedlings use a compost of fibrous loam passed through a half-inch mesh sieve and leaf-soil in equal proportions, with a 6-inch potful of coarse sand to half a bushel of the two mixed parts.

When the seedlings are first pricked off, the same kind of compost will be suitable, but a small quantity of rotted manure must be added. When first potting the plants singly, use 3½-inch pots, then 4½-inch ones, and finally place them in 6-inch pots. During the early stages of growth the young plants may be kept in a cool frame, and simply guarded against excessive damp and frost from November to the following March.

This plant is frequently known by the name of Bridal Wreath. The flowers are white, small, but numerous, and borne on graceful stems between 2 feet and 3 feet in length. The spikes of blossom last fresh a long time when cut and placed in vases. B.

FUCHSIAS AS PILLAR PLANTS.

FEW kinds of plants are more graceful in habit than Fuchsias. They are indispensable for the furnishing of the greenhouse, and as their culture is so simple, the plants should be grown more extensively than they are at the present time. Twenty-nine years ago, when I first commenced my gardening career, I saw a noble specimen growing in a greenhouse, the main stem being trained to a tall pillar, which was gracefully clothed from the bottom to the top with an abundance of healthy foliage and thousands of blossoms. Since that time I have always advocated the use of the Fuchsia as a pillar plant.

HOW TO TRAIN THE PLANTS.

The present is a good time to begin the potting and training of the plants. Readers of THE GARDEN will note that I say potting and not planting, as it is a mistake to put out a young plant in a border of rich compost, simply because the new growth would be very rapid and unsatisfactory.

Cultivators who possess nice young plants about 1 foot high must repot them, giving a 2-inch shift; this will result in splendid growth of the right kind, namely, free and moderately firm, short-jointed wood. By the early part of the summer the plant will be in the right condition for planting out in the border instead of being repotted again. When the plants are intended to be grown in pots permanently, it is a wise plan to reduce the old ball of soil considerably at the first potting after the resting period; but when grown for the purpose of planting out, very little reduction of the old ball of soil should be made. The leading shoot of the plant must be taken great care of and be stopped at the ninth joint, so that side shoots may be induced to grow and thus form an even, well-balanced living pillar.

The compost for the potting of the plants should consist of loam two parts, leaf-soil one part, and sand and well-rotted manure one part. Lumpy, fibrous loam three parts and leaf-soil one part should form the compost in the border, because it must be left undisturbed for many years and must, therefore, be of a lasting nature. Surface-dressings of lighter material can always be put on, and feeding at the will of the cultivator.

Some Suitable Varieties. — Single-flowered: Corallie, Rose of Castile Improved, General Roberts, Sensation and Andenken an H. Henkel. Double-flowered: Avalanche, Mr. Gladstone, Frau Emma Topfer and Naegeli. AVON.

BOOKS.

A Shilling Book on Roses.*—An eleventh edition of a book is testimony to its popularity and, therefore, we presume its usefulness. The late Mr. William Paul was one of the most practical and instructive writers on gardening in the past, and from time to time his various publications have been brought to date by Mr. Arthur Paul, who is one of our most experienced rosarians. An invaluable chapter in the present edition is that dealing with the "Selections of Roses Suitable for Various Purposes," and in this we notice the names of many of the most beautiful of recent acquisitions, some raised by the firm itself, such as the exquisite Hugo Roller, which we think is the most distinct Hybrid Tea Rose that has appeared of recent years. Then, it is a pleasure to find that the old garden Roses have not been forgotten, Celestial, Maiden's Blush and many others that delighted our forbears. The practical information given is, of course, beyond criticism. The name of Paul is a sufficient guarantee for perfect accuracy. We heartily commend this little book.

The Ideal Garden.†—It needs a considerable amount of courage for an author to say what constitutes an ideal garden. Mr. Thomas neatly gets over the difficulty by declaring that "The ideal garden is an expression of the highest hopes of the gardener." Naturally, these hopes may differ very considerably according to individual tastes, and for that reason the title of this volume must not be taken too literally. We must confess that we read the first chapter with considerable pleasure; the author rightly condemns working by rule of thumb alone, and also draws attention to the many successes achieved by amateurs who have to do the best they can under what are frequently far from ideal circumstances. Rightly enough follows the chapter on garden planning, and some useful information is given in a pleasant style; this, indeed, may be said of all the chapters. Some subjects might, perhaps, have been dealt with more fully, but, on the whole, Mr. Thomas has given amateurs a great deal of valuable information that cannot fail to be of considerable assistance in enabling them to bring into being their ideal garden. Having read through the volume, however, we must confess to a slight feeling of disappointment, a feeling that is difficult to analyse, but which, nevertheless, exists. The chapters in themselves, as we have already stated, are excellent; but we think a little more care in their arrangement would have dispelled the feeling of disappointment that occurs when the book is finished. Thus we think that the chapters devoted to trees and shrubs might have been kept together and have followed each other in seasonable rotation, and the same remark applies to beds, paths, walls and other subjects that form a feature of the book. Although t volume is evidently written for those with co paratively small gardens, we think a chapter water and bog gardens would have added to value. Such gardens need not be on a la scale, and the inclusion of many charming pla could then be effected. We think, too, that f amateurs would consider their garden an id one unless it contained vegetables and fr trees, yet the former are ignored, and t chapter that is devoted to fruit deals only wi root-pruning and pruning. The volume beautifully produced, and contains sixte coloured plates and ninety-six photograph illustrations, the majority of the latter being ve good indeed.

Descriptive Notes for Teacher Following the publication of the excellent pictu of flowers and butterflies for school use, Mess Longmans, Green and Co., 39, Paternoster Ro London, E.C., have now published in booklet fo descriptive notes of these pictures. The not on the flowers have been written by C. Longman, and those on butterflies by W. Furneaux. The price of this booklet is 6d.

*"A Shilling Book on Roses," by William Paul, F.L.S., Waltham Cross. (Eleventh edition.)

†"The Ideal Garden," by H. H. Thomas; price 6s. net. Messrs. Cassell and Co., Limited, La Belle Sauvage, Ludgate Hill, London, E.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor inten to make* THE GARDEN *helpful to all readers who des assistance, no matter what the branch of gardening m be, and with that object will make a special feature of t "Answers to Correspondents" column. All communic tions should be clearly and concisely written on one si of the paper only, and addressed to the* EDITOR *of* TH GARDEN, *20, Tavistock Street, Covent Garden, Londo W.C. Letters on business should be sent to the* PUBLISHE *The name and address of the sender are required addition to any designation he may desire to be used in t paper. When more than one query is sent, each shou be on a separate piece of paper.*

FLOWER GARDEN.

Daffodils not flowering (*E. Courteno Wells*).—You do not say to what Daffodils yo refer, and you give us no idea whether the bul were freshly planted last autumn or establishe clumps that have remained for years witho disturbance. Had you given these particular we could have told you more or less definitel whether the non-flowering was due to ove crowding, late planting or any other cause. If th bulbs have been, say, a couple of years in positio and are not in crowded clumps, it is highl probable that their non-flowering is due to th absence of sun-heat last year, more particularl at the time when the flower germ is usually laid If you can add to the information you have give we may help you further, though, as the plant are healthy, we have no doubt the failing is du to the season.

Spring bedding (*A. W. Rydon*).—Th best carpeting plant for beds of white Hyacinth would be the pink-flowered Daisy Alice, a prett quilled variety of much beauty and merit. I you desire a stronger contrast, then we shoul say use the crimson-flowered Daisy Rob Roy The Violas, however, should flower well August-rooted cuttings were put out in the bed the first week of October, the point of eac plant removed a week later, and allowed to g unchecked afterwards. Bullion, yellow, an Ardwell Gem, primrose yellow, are noted fo their freedom and early flowering. The Aubrie tias we should not recommend for the work fo many reasons. If a green carpet plant would do several of the Mossy Saxifrages could be named To be of real service a carpeting plant should b free-flowering, easily increased and indifferen to frequent disturbance among other things. Th Aloes—if you refer to the American Aloe (Agav

mericana) or one of its varieties—would not be ardy in the county named. The plants should e taken indoors in October or early November ccording to the season. A frost-proof place is uite necessary for the plants.

Twelve fancy Pansies (*Albert Ingam*).—The under-mentioned fancy Pansies should neet your requirements, and at your special equest we have included two or three varieties f last year's introduction. Any of the leading ansy-growers should provide you with those e recommend: Arch Milloy, Colonel M. . R. Buchanan, Mrs. R. Fife, John icken, Jessie L. Arbuckle, Wm. J. Cupples, urse Eaglesome, Tammie, Mrs. D. Johnstone, ndrew Brown (new), Andrew H. Lister (new) nd James Lister (new).

Diseased Violets (*C. B.*).—You have done right in urning all the diseased leaves you have picked off your iolet plants, and we fear there is no other course to take ith respect to the plants, as they are evidently badly ttacked by the Violet fungus (Urocystis violæ), a trouble e have long been familiar with, and which occasionally ttacks the bunch Pansy or Viola, but seldom injures the lants in the same way the Sweet Violets now suffer. The isease is, unfortunately, a too common one, complaints specting it being heard in many directions. You may heck the trouble somewhat by smothering your plants ith flowers of sulphur, on which cast a little fresh-slaked me, then shutting the frame close up and keeping it overed all night; or you may spray the plants with weak ordeaux mixture or sulphate of copper and lime solu-on. But it is doubtful whether either course will save he plants, as, however much they may recover, some erms of the fungus are pretty sure to hang about them nd become widespread later. Probably your wisest ourse will be to root out and burn all your plants, emove all the soil from the frames, spread it over some f the vegetable garden quarters, and smother it with resh-slaked lime before digging it in. Then place a few red-ot cinders in iron pots, on these place some sulphur, ut one pot in each frame and shut down close. Even fter the frames have undergone such fumigation, have he insides coated with hot lime-wash and the glass lights ell washed with strong soda water, quite hot. So treated he frames might be used for Violets again next winter n beds of entirely fresh soil on which a good quantity of resh-slaked lime has been dusted; but the plants ust be from a fresh, healthy stock. These are very radic measures to take, but only in such ways can these ungoid diseases be fought. It is by no means unlikely hat a lack of lime in the soil used helps the growth of hese fungoid evils.

TREES AND SHRUBS.

Spanish Chestnuts decaying (*F. R. Clarke*).—You can do little good by attempting to feed your old Spanish Chestnut trees ithout you take the lawn up for a considerable istance round them, manure the ground well ith decayed farmyard manure and leave it pen for some time. The feeding roots are at uch a distance from the trunk that giving food aterial round it will do very little good. We dvise you to have all the dead wood cut carefully out and the wounds nicely tarred over. his may give the trees a new lease of life. A ressing of bone-meal on your lawn at the present ime would do the grass good. It may be applied t the rate of about 3oz. to the square yard. If ou do not object to soot, a dressing in wet eather would do good.

Propagating Heaths (*G. W.*).—You ay propagate Heaths either by cuttings or ayers. Cuttings are made from the points of de shoots about 1 inch long during July or ugust, and are dibbled into pots of sandy peat ade very firm. These are then stood in a close nd slightly warm case until rooted. Sometimes, owever, the cuttings are dibbled into an outside order and covered with a handlight. In this ay they take several months to root, while in he former roots are formed in about six weeks. o layer plants the branches are weighted down ith stones into peaty soil, and are left for two ears without disturbance. The best plants are rmed from cuttings. It is very doubtful whether ou would succeed with the Portuguese Heath in open border at Hawick. Four of the best hardy eaths to cultivate for forcing are E. lusitanica, . Veitchii, E. mediterranea hybrida and E. rnea. The latter two may be grown out of ors in an open border until the autumn before they are required for forcing, when they should be potted up; the first-mentioned two should be grown in a prepared bed of peaty soil in a cold frame for two years and then be potted up. Fine, large examples of these two may be obtained in a few years. They will not stand severe forcing, but must be brought on slowly in a cool structure. After flowering the branches must be cut back somewhat and the plants kept indoors until the end of May, when they should be stood outside and left until October.

Pruning Hydrangea (*G.*).—All the pruning that Hydrangea Hortensia will require is thinning out. Cut away right to the base thin and worn-out shoots, and leave the remainder their full length. The correct time to give manure is as soon as the flower-heads have been formed. If it is given before they are visible, growth is unduly excited and a smaller number of flower-heads appear. It is probable that with you June will be a suitable time to feed the plants.

Choisya ternata unhealthy (*T. W. Matthews*). It is probable that your Choisyas are getting worn out, as C. ternata is not a long-lived plant. Your best plan will be to cut them fairly hard back after flowering, and give an occasional watering with weak liquid manure. As soon as new shoots appear, fork a little of the old soil away from the roots and replenish with good loamy material. If you were to root a few cuttings you might venture to throw your old plants away, for young ones grow very quickly and are always more satisfactory than old specimens which are on the downward grade.

Cutting a Holly hedge (*Arthur Newall*).—It is quite true that Hollies and other hedge plants are sometimes cut down to the ground a year or two after planting, with beneficial results; but it does not follow that it is always advisable to do so. If the plants appear to be well established and healthy they would grow again well, but if they appear somewhat delicate they had better be left alone. By cutting down a better bottom is produced, and frequently more vigorous growths. It is quite natural for very little growth to be made for a year or two after planting, but when once the plants have become well established growth will be more rapid. You will have to use your own judgment as to cutting down, for it is impossible to give advice without seeing the plants. You will not, however, do wrong if your plants are well rooted.

THE GREENHOUSE.

Amaryllis for inspection (*J. H.*).—The flower-stem of Amaryllis is quite decayed; but as not a single word is said as to the treatment the plants received, it is, of course, absolutely impossible to state the cause of the trouble. Appearances point to an accumulation of moisture in the crown of the plant having caused the damage. The effect of this would, of course, be worse if the temperature happened to be unduly low. If you furnish us with more details as to the conditions under which the plants have been grown and wintered, we could advise you still further.

Clianthus Dampieri (*Seeker*).—You could certainly without difficulty raise Clianthus Dampieri in a frame on a hot-bed; but as it is particularly liable to damp off, the young plants would probably soon perish. A light buoyant atmosphere is very necessary for the successful cultivation of Clianthus Dampieri, and though your plants might succeed in the span-roofed frame during the summer, they would be sure to perish in the winter, quite as much from damp as from the cold. Far and away the most successful method of growing Clianthus Dampieri is to graft young plants on to seedlings of the common Bladder Senna (Colutea arborescens). The way to do this is to sow single seeds of the Colutea in small pots and plunge them in a gentle bottom-heat. Then, about three weeks after this, the Clianthus may be sown, and under similiar conditions it will quickly germinate. Grafting must be performed directly the first true leaf of the Clianthus develops. A very sharp knife and considerable care are, of course, needed for the operation, as both stock and scion are so tender. Side grafting may be employed, and the scion may be tied in position with some very soft material. Then, if plunged in a moderate bottom-heat and covered with a bell-glass, a union may be expected to take place in about a fortnight. When a union is complete the plants must be inured to the ordinary atmosphere of the greenhouse. As soon as the plants are sufficiently advanced they must be shifted into larger pots, using a compost consisting chiefly of fibrous loam, lightened by some leaf-mould and sand. Most cultivators prefer to grow the plants in hanging baskets, as this method allows of a particularly free circulation of air, so essential for the culture of the Clianthus. If grafting is done in early spring, the plants will be ready for baskets during the summer. The second season the plants will flower throughout the spring and summer months. During that period they are greatly benefited by an occasional dose of liquid manure. Plants of Clianthus Dampieri grown in this way have formed a delightful feature at Kew for some years, and it was there, we believe, that the value of Colutea arborescens as a stock was first discovered.

Woodlice in plant houses (*S. D.*).—Perseverance is a very necessary quality in order to get rid of woodlice in plant houses. At the same time, they are much less difficult to exterminate than are many destructive insects. During the day they take refuge in any nook or cranny, and a kettle or two of boiling water poured where they are likely to have secreted themselves will often account for a considerable number. Besides this they may be readily caught. A very successful trap is to take a Potato and cut it in two; then hollow out each portion, and stand them about on the stages where the woodlice are troublesome. The hollow side must be placed downwards, and if examined in the morning a great many of these pests will be found congregated in the hollow underneath. They can then be dropped into a vessel containing boiling water, when they will be at once destroyed. If the stage is quite smooth, the Potato may fit too closely to allow the woodlice to get underneath, in which case a notch may be cut out on either side of the Potato, in order to give easy access to the hollowed out portion. The small pieces of Potato removed during the hollowing out need not be thrown away, for if put into small pots with a little dry moss they form very effective traps. Dry moss alone, placed loosely into small pots laid on their sides, will also catch many. In every case the traps must be examined each morning. A look round by the light of a lamp after dark often enables one to destroy many of these pests. There are also several proprietary articles for the destruction of woodlice on the market, but we have always found the above treatment very effectual.

FRUIT GARDEN.

The Japanese Wineberry (*G. H.*).—The Wineberry (Rubus phœnicolasius) is of the Bramble family, and should be treated in the same way as regards cultivation and pruning as the Raspberry or the Loganberry. This year's fruit will be borne on shoots the growth of last year. As soon in the autumn as the crop is gathered, the shoots which have borne the fruits should be cut off close to the ground, so as to let more light and air among the shoots of this year's growth, in order the better to prepare them to bear heavy crops next year. The Wineberry should be planted in rows 3 feet apart, the rows being 4 feet asunder. They should be supported by stakes or against a wire espalier trellis 5½ feet high. The ground should be trenched and liberally manured before planting takes place, for the plant is surface-rooting and the soil cannot be deeply dug afterwards, but must be surface-dressed every winter with rotten farmyard manure, laid on 4 inches deep, as soon as winter pruning takes place. It will succeed very well in a rather shady position, as it will also in a sunny one. It is suitable for covering rough places when allowed to grow naturally like a Bramble. The shoots in winter are thickly covered with red, short spines, and in summer the velvet-like foliage is handsome. The fruit is better appreciated as a preserve than dessert.

Apple-growing as a business (*Enquirer*).—It is difficult to answer a question of this importance off-hand, success depending on so many side issues and conditions, such as the quality of the soil, the position of the land (and, of course, the price), the sorts to grow and the form of tree to plant, whether standards or bushes. If such land were planted with standard trees intended for permanent orchards, there is no doubt the trees would give an improving and a fairly good return after the fifth year, and a lucrative and still an improving one at ten years, provided the trees were properly planted in the first instance in good soil, well looked after and the right sorts planted, and should remain in profit for at least thirty-five or forty years. The return from the trees would be small for the first four or five years, but the grass, or whatever other crops are growing between them, would give a considerable annual return. Before embarking in such a venture we would advise you to spend at least two years on a fruit farm to gain practical experience of the work and, further, to have such land inspected and reported upon by a practical and successful grower of Apples for market. There is a gentleman not very far from you who possesses some of the best orchards in the kingdom—Mr. Merryweather of Southwell.

MISCELLANEOUS.

Various questions (*Kathleen A. White*).—The "red japonica," Pyrus japonica, should be pruned as soon as the flowering is over, or, if the plant has been neglected, it may be thinned out and spurred back to within 3 inches or so of the wall or fence. The correct pruning will depend entirely on the plant itself and how long it has been running wild. It is possible a slight root-pruning might be helpful. A trench for Sweet Peas should be prepared by digging it 2 feet deep, placing in a heavy layer of manure 12 inches deep. The best way is to throw out the first 12 inches of soil, then dig up the bottom, place in the manure, and cover in. A trench should not be less than 12 inches wide. This work is best done in autumn or winter, and the Peas raised in pots or boxes put out in March. You might mulch the Peas towards the middle of June if the weather is hot. The peat fibre alone would be no good for the Azaleas, though a small proportion, rubbed through a fine-meshed sieve, might be added to the ordinary peat soil for potting.

Rose cuttings (*J. M. S.*).—Something depends upon the kind of Rose you have put in as cuttings whether you should cut back these extra long growths. If retained such an unusual length, we think it would be advisable to cut them back to within an inch or so of the ground; but this should be done with a pair of sharp secateurs, so that the cuttings are not disturbed. It will be best to prune last year's cuttings down to about 5 inches or 6 inches from the ground-line. This induces the plants to become more bushy. Some varieties of Roses—for instance, the Rambler tribe—although not so large as budded plants, would, if put in as cuttings last autumn and transplanted next autumn, be equal to budded plants in the course of two or three years, although at first not nearly so large; but Hybrid Perpetuals, Teas and Hybrid Teas should stand two years before transplanting to final positions, and then they would, in many cases, overtake budded plants of the same age when they have become well established. It will be well to prune them in the spring of the second year.

Seeds for name and information (*W. B. Wise*).—The seeds you send for name are as follows: No. 1, Mucuna urens; No. 2, Abrus precatorius. Mucuna urens is a strong-growing climbing plant native of Tropical South America; but the seeds are frequently picked up on the shores of other countries, having arrived as drift seeds. It ought to be sown in loamy soil in a tropical temperature, and be grown on as a pillar or rafter plant where it can have plenty of room. A compost of two parts good fibrous loam, one part peat and a little sand will suit it. No. 2, Abrus precatorius, is commonly known as "Crab's-eyes," on account of the peculiar colouring, while from the sensitive character of the leaves it has obtained the name of "Leather Plant," the foliage having the tendency to close or droop on the approach of rain. It is widely distributed in the tropics, and the seeds are used largely for manufacturing into fancy articles, such as bags and mats. A stove temperature is necessary for the seeds to be sown in, while a suitable rooting medium will be found in two parts of good fibrous loam to one of peat and leaf-mould combined, with a little sand. After the plants have attained a height of 6 inches they may be transferred to an intermediate house.

Names of plants.—*Mrs. G.*—Allium neapolitanum. —*L. A. H.*—The Orchid looked like Cattleya Mendelii, but was too crushed to identify with certainty. Roses: 1, Catherine Mermet; 2, Grace Darling; 3, Anna Olivier; 4, Lady Roberts; 5, Liberty.

HORTICULTURAL EXHIBITS AT THE IDEAL HOME EXHIBITION.

THIS exhibition, which closes on Saturday, is one of the most instructive and pleasant that has ever been held at Olympia, and all who have an opportunity should visit it before the exhibits are removed.

Messrs. Pulham and Sons, 71, Newman Street, Oxford Street, produce a magnificent effect in rockwork. The whole arrangement, if one might so describe it, is worthy of some association of rock and shrub and water-loving plants on a large scale. It is constructed of "Pulhamite," which is not a natural stone, but has every appearance of such, although we wish to point out that this firm constructs rock gardens from both materials. Numbers of visitors surrounded this great display, a perfect torrent of water tumbling over the rocks, rushing into little eddies, and kissing the flowers that love to feel the soft spray; while here and there are shrubs, even the slender stems of the Birch, to impart as natural a scene as possible in an exhibition. Marsh Marigolds, Primulas and a host of other flowers in beauty now give splashes of colour. We hope to illustrate this exhibit. Messrs. Pulham deserve all praise for their success in showing to the thousands that have thronged the exhibition the beauties of rockwork and water.

Messrs. J. Cheal and Sons of Crawley have surpassed themselves. They are responsible for the beautiful Tudor garden, with its little cottage set out with homely flowers and surrounded with Yew hedges and lawns on a large scale, pergolas, restful retreats, summer-houses, and even a bowling-green whereon the game is actually played. One enters a garden through a simple and solidly constructed Oak gate into a plesaunce of grass walks and flower-lined paths, and, looking over a fence to see the plants set out, the whole thing is so natural that only the buzz of conversation recalls one to a sense of environment. It was a delight to look down one flower-lined walk, with its little flagged path, and reflect the great teaching value of such exhibitions as this, bringing the finer phases of home and garden before the public. The whole thing is a triumph of artistic perception and naturalness, bringing to Olympia the breath and colour of the country.

An exhibit of far-reaching importance is a carefully constructed model of a seaside golfing village which it is proposed to erect at Happisburgh, near Cromer, from designs from the well-known landscape gardener, Mr. Edward White (Messrs. Milner, Son and White), landscape gardeners and surveyors, 7, Victoria Street, S.W., and Mr. C. E. Mallows, architect, 28, Conduit Street, W. The site indicated by the model has a mile and a-quarter sea frontage, consisting of cliffs about 50 feet above sea level, which afford many points of access to the sea-beach. It is proposed to develop the property in such a way that every house shall have a sea view. All the buildings will be constructed in the characteristic local materials (flint and brick), and be reed-thatched. The number of houses allowed on the estate will be limited. The golf course will be disposed in a fashion both novel and attractive, being arranged in such a way that it will entirely encompass the village. Thus every resident will be able to start and finish his game by the back door of his house.

An excellent display of bottled fruits is to be seen from Mr. William Poupart, Fernleigh Orchards, Twickenham; and horticultural sundries, such as fumigators and similar things, from Messrs. Walter Voss and Co., Limited, Glengall Road, Millwall.

It is difficult to discover all the interesting horticultural exhibits in such a huge place as Olympia. Messrs. Boulton and Paul of Norwich, for instance, kindly lend an exquisite garden house; there is the Sweet Pea scent—delicious in fragrance and most refreshing—from Mr. Eckford, the famous Sweet Pea specialist of Wem, Shropshire; the Abol Insecticide, from Messrs. E. A. White, Limited, Paddock Wood, Kent, showing how it can be sprayed on the crops by means of the Abol syringe; the excellent "Caloricult" house for forcing fruits with bottom-heat, a structure that should be in all gardens where forced fruit is a necessity, from Messrs. Duncan and Sons, 27, Cannon Street, London, E.C.; and the famous heating apparatuses of all kinds from Messrs. Toope and Son of Stepney. The Anglo-Belge Glass Association make a fine display of the Mason Fruit Bottle, also the Blitz Flower-holder, which is a most useful article in which to arrange flowers in vases. We wish we could devote more space to a description of these exhibits.

OBITUARY.

MR. G. S. SAUNDERS.

IT is with extreme regret we hear of the death of our old friend and contributor, Mr. George S. Saunders, a son of the late Mr. Wilson Saunders, whose interest in Ferns, the Filmy kinds in particular, one has not forgotten. Mr. George Saunders was a warm lover of flowers, and also took an interest in insects, so much so that we are sorry no book came from his pen on this important subject. His initials "G. S. S." were familiar, until his recent illness, to readers of THE GARDEN, and no one was more qualified to give advice on the friends and foes of the garden. One of his most important contributions on this subject was to the "Century Book of Gardening," and he contributed an excellent series of articles in *Gardening Illustrated* some years ago. Recently Mr. Saunders undertook the editing of the Journal of the Royal Horticultural Society, but did not continue that work very long owing, no doubt, to the beginning of failing health. Our friend was librarian for many years at St. Thomas's Hospital, and many medical men will feel a real pang of sorrow when they know that Mr. Saunders is dead. He was beloved by the students and the staff generally. No warmer heart ever beat. His was a lovable nature, and few possessed a greater knowledge of the subjects in which he was interested, though his retiring, sensitive disposition never gave sufficient evidence of it.

SOCIETIES.

READING GARDENERS' ASSOCIATION.

AT the fortnightly meeting, held in the Abbey Hall on the 4th inst., there was, notwithstanding unfavourable weather, a good attendance of members. Mr. T. Judd presided. The subject for the evening was "Rhododendrons," introduced by Mr. A. F. Bailey, The Gardens, Leopold House, Reading. In a brief but most practical paper, Mr. Bailey dealt with these, the most magnificent of flowering shrubs, in their various stages, from seedlings to fully matured plants, giving much instructive information on the treatment of both hardy and tender varieties, also on planting for effect, colour combinations, massing and other purposes. In the debate which followed the paper, Mr. Bailey was at his best, and his practical demonstrations on the grafting, layering and packing of Rhododendrons were eagerly followed by an appreciative audience, and a hearty vote of thanks was accorded him at the close of the meeting. The exhibits again reached a very high standard. Certificates were awarded to Mr. G. Carter, gardener to S. Griffiths, Esq., for a beautiful group of Deutzias; and to Mr. F. Townsend, head-gardener to L. G. Sutton, Esq., for a splendid collection of Narcissi and Tulips. Mr. T. J. Powell, The Gardens, Park Place (Mrs. Noble), exhibited fine sprays of Lilac; and Mr. W. Barnes, The Gardens, Bearwood, fine specimen blooms from flowering shrubs and a basket of Pears.

THE GARDEN.

No. 2006.—Vol. LXXIV. April 30, 1910.

CONTENTS.

The Rose Annual .. 209

Notes of the Week
Forthcoming events 210
National Vegetable Society's trials of Cabbages 210
Dunfermline Summer Show 210
Cinerarias at Farnham Royal 210

Correspondence
Digging competitions 211

Gardening of the Week
For the South and South Midlands .. 211
For the North and North Midlands .. 211

Workers among the flowers 212

Kitchen Garden
Mildew on Peas .. 212
Dobbie's Golden Ball Turnip 212

Fruit Garden
Fruit notes 213

Flower Garden
The fascination of the Crocus 213
The Jerusalem Cowslip on a wall .. 213
Some suggestions for bedding 214

Flower Garden
Rockery and pond two years after its formation 214

Rose Garden
Seasonable work .. 214
The new Rose Juliet 215
Clothing the stems of standard Roses 215

Greenhouse
Cinerarias and their culture 215
How to grow good Bouvardias 215

Gardening for Beginners
Garden work week by week 216
Planting Sweet Peas outdoors 216
Planting Pentstemons 217
Planting and summer treatment of Leeks 217

The Town Garden .. 217
Legal Points 218
New plants 218

Answers to Correspondents
Flower garden 218
Fruit garden 219
Miscellaneous 220
Societies 220

ILLUSTRATIONS.

Ernest H. Krelage 211
Crocus aërius 212
Pulmonaria officinalis on the top of a retaining wall 213
The new Rose Juliet 214
A small rockery at Bishopstone Rectory, Hereford .. 215
Planting Sweet Peas outdoors 216, 217
Messrs. Pulham and Son's rock garden exhibit 219

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE ROSE ANNUAL.

WE have just received the Annual of the National Rose Society for the present year, and though, of course, belated, as the beginning of May has arrived, it is none the less welcome. Few societies are more progressive than that devoted to the Queen of Flowers, and the roll of membership approaches 5,000, a valuable testimony to the love not only of the Rose, but of horticulture generally. There is not the slightest doubt that much of the success of the society is due to the publication of useful handbooks on various phases of cultivation, including an excellent treatise on enemies of the Rose, all of these publications having run into more than one edition.

The Rose Annual improves on acquaintance, and the present little book contains a mass of information of the greatest value to the rosarian, with portraits of the leading officers and several designs to help the would-be rosarian in laying out pieces of ground of various dimensions. Mr. H. Darlington starts off with an elaborately described list of the twenty-four most beautiful Roses for general garden cultivation, these comprising Antoine Rivoire (H.T.)—the letters in parentheses signify the class to which the Rose belongs, H.T. being an abbreviation of Hybrid Tea; T., Tea; and H.P., Hybrid Perpetual—Caroline Testout (H.T.), Commandant Felix Faure (H.P.), Earl of Warwick (H.T.), Frau Karl Druschki (H.P.), G. Nabonnand (T.), Grand Duc de Luxembourg (H.T.), Gustav Grünerwald (H.T.), Hugh Dickson (H.P.), Joseph Hill (H.T.), La France (H.T.), Lady Ashtown (H.T.), Mme. Abel Chatenay (H.T.), Mme. Jules Grolez (H.T.), Mme. Mélanie Soupert (H.T.), Mme. Ravary (H.T.), Mrs. John Laing (H.P.), Mrs. R. G. Sharman Crawford (H.P.), Pharisaer (H.T.), Prince de Bulgarie (H.T.), Richmond (H.T.), Ulrich Brunner (H.P.), Viscountess Folkestone (H.T.) and White Maman Cochet (T.).

This is a most important list over which there should be no quarrel. All the Roses enumerated the writer has proved to be most satisfactory for grouping in the garden, Antoine Rivoire, Caroline Testout, Frau Karl Druschki, G. Nabonnand, Grand Duc Adolphe de Luxembourg, La France, Lady Ashtown, Mme. Abel Chatenay, Mme. Ravary, Pharisaer, Prince de Bulgarie, Richmond and Viscountess Folkestone in particular. Mr. Alfred Tate, one of our most enthusiastic rosarians, writes "On the Treating and Training of Weeping Standards," and Mr. Walter Easlea on an intensely interesting subject, "Hybridisation of Roses"; this the writer has made especially his own. The amateur is encouraged to embark on this interesting study, and, as is well said: "If the amateur hybridiser only succeeds in obtaining some beautiful and original forms for his own garden, the effort even then would be well worth making. Who can tell what is in store for us when we hear of a cross between that erratic Rose, Rosa gigantea, and Reine Marie Henriette, named Etoile de Portugal, which may even rival R. sinica Anemone, another of those splendid achievements we owe to the hybridist's art?" "A Surrey Rose Garden," by Mr. H. E. Molyneux, is full of practical hints and the pleasures the Rose can bring to those who love their gardens. The author apparently lives among his Roses when free from the cares of business, and the following quotation should inspire others: "A delightful open-air teahouse, commanding many charming vistas, has been erected in the far north-west corner of the garden on an artificially raised mound, having a tiled pavement so loosely jointed that Thyme and other sweet-smelling herbs and dwarf alpines grow luxuriously, forming a beautiful and fragrant carpet (it is little touches such as these that show the master hand). Nothing garish strikes the eye anywhere, no statuary of indifferent execution, no busts, urns or other miscalled ornaments disturb or distract in this ideal Rose garden, truly the 'Home of the Rose.'" The plans of Rose gardens by Mr. C. E. Shea, Dr. A. H. Williams and Miss Dorothy Page-Roberts are most helpful, and the Rose Analysis from the secretary, Mr. E. Mawley, is always a compilation of exceptional interest, not without its instructive value, to the ardent exhibitor. A valuable contribution is that from Dr. Williams, "Sprays and Sprayers," and in treating of the much-vexed question of mildew it is mentioned: "Whatever form of attack we may adopt, it must be undertaken with observation and persistence. For this fungoid pest there are many remedies, but with all of them, if success is to be attained, there is one golden rule, 'Spray early and spray often.' It is no use to wait till the disease is visible. By that time the mischief is deep-seated, and the fungus is established in the tissues of the plant where the spray will not reach it. Spraying should be looked upon as a preventive rather than a curative measure. No half-hearted attack is likely to do much good. Spraying must be commenced as soon as the leaf-buds begin to unfold, and must be continued at intervals of seven to fourteen days throughout the season. If this is honestly done with some reliable germicide, one's Roses may be kept practically free from mildew; any slight appearance of the fungus will not make much headway." Several recipes are given, comprising sulphuric acid, potassium sulphide, Cooper's V2K, Wright's Mo-Effic,

White's Superior Abol and Jeyes' Cyllin Soft Soap.

One of the most charming illustrations is that of an arch covered with Roses in the garden of the president, the Rev. F. Page-Roberts, rector of Stratfieldsaye. A list is given of the Roses that gained the gold medal and card of commendation in 1909. We are glad to find such a conspicuous advance in the now much-liked Rose Annual, and all who have worked to bring it to such perfection are deserving of the thanks of rosarians.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 3.—Royal Horticultural Society's Exhibition of Flowers, &c., and Auricula and Primula Show, 1 to 6 p.m. Lecture at three o'clock by Dr. A. Henry, M.A., V.M.H., on "Future Forest Trees." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

May 4.—National Auricula and Primula Society's (Midland Section) Show at Edgbaston Botanic Gardens, Birmingham.

May 4 to 11.—Haarlem Jubilee Show.

National Vegetable Society's trials of Cabbages.—Last week some members of the committee of the above society visited the trials of Cabbages which have been made under their ægis at Twickenham and Guildford. At the former place the trials have been conducted by Mr. W. Poupart, and at the latter by Mr. Charles Foster, director of the Times Experimental Station, Sutton Green, Woking. The trials held in Essex have, owing to the wet autumn, proved almost a failure, but the others have given many useful and interesting results. Some varieties have been found to be unsuitable for autumn sowing, while others have done well. Mr. C. Foster wishes all those seedsmen who kindly sent Cabbage seeds for trial, to learn that he will be pleased to show them the trial at Sutton Green now that it has been seen by the society's committee. The time allowed, however, can be but a few days. The society's committee meet to receive the report of the inspection deputation on Tuesday next, when its form will be settled, and copies will be at once issued to the Press. Both trials give practically similar results. The trials of autumn-sown Onions are looking well, and promise to give some interesting results. We have frequently appealed to our readers to join this society and so strengthen the hands of the committee in its praiseworthy efforts to advance the cultivation of vegetables. The hon. secretary of the society is Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow.

Dunfermline Summer Show.—The Carnegie Dunfermline Trust have issued the schedule of their seventh summer show, which is to be held in the Pittencrieff Park, Dunfermline, on Thursday and Friday, July 21 and 22. Last year's show was a remarkably fine one, and the schedule arranged for this year should produce even a larger competition than before. Roses are a great feature of the show, which is affiliated to the National Rose Society, four of whose medals are awarded at the exhibition. Upwards of £122 is allotted for Roses alone, the leading prize being the Carnegie Championship Prize for seventy-two cut Roses, single blooms, in not fewer than thirty-six varieties, the prize being £10. For a display of herbaceous flowers the first prize is also £10. The prizes in other classes are proportionate, and the show should call forth an extensive competition, such as in former years has brought this show into the premier rank of Scottish flower shows. Schedules can be had on application to the secretary, Mr. John Hynd, 53, Victoria Street, Dunfermline.

Fruit congress and show at Hexham.—For the purpose of encouraging fruit culture in the four Northern Counties, a fruit congress and show is to be held at Hexham on October 20, 21 and 22, when a number of papers relating to fruit culture will be read and discussed, and an exhibition of fruits in season will also be held. Among those who are giving papers are such well-known men as Mr. H. Somers Rivers, Mr. G. P. Berry, Mr. G. Bunyard, V.M.H., Mr. F. V. Theobald, M.A., Mr. F. J. Chittenden, F.L.S., and Mr. J. S. Chisholm. Copies of the programme and schedule can be obtained from the general secretary, the Rev. J. Bernard Hall, Dalston, Cumberland, price 1d. each.

Cinerarias at Farnham Royal.—We have seen the Cinerarias of Messrs. J. James and Son, Farnham Royal, on many occasions, but never has a warmer flood of colour filled the houses than this year. The plants are sumptuous, and it is worth a journey to those interested in this flower to see the extraordinary effect that is produced when the colours are grouped. In one house there is nothing but white Cinerarias relieved by a violet centre; then in others masses of intense purple, red, white with an edge of violet, and many other shades. Some may dislike the "squat" character of the growth, but this is not aggressively evident. A single plant has a surface of richly coloured flowers which almost hide the leaves, and a few distributed throughout the greenhouse at this season will give brilliancy without the slightest trace of garishness. With all this glorious colouring is perfect form in the individual flower, smooth, finely shaped petals that seem to reflect the very sunlight itself. One house is devoted to the stellata or "Star" forms, and the plants are arranged to present a billowy mass of small flowers, which have the same range of colour as the more formal types. Cineraria-time with Messrs. James is a time of flowers representing wonderful and varied hues.

United Horticultural Benefit and Provident Society.—The monthly meeting of this society was held at the Royal Horticultural Hall on Monday, April 11. The minutes of the last meeting were read and confirmed. The number of new members elected during the last three months was thirty-two. Two members were transferred from the lower to the higher scale. A cheque for £13 3s. 5d. was drawn for a lapsed member. The usual quarterly payments were made to members over seventy. The amount of sick pay for the past month was £35 9s. The annual report and balance-sheet has been posted to honorary and benefit members. Any member not having received one will please write to the secretary.

Apple Wagener.—This was sent to the meeting of the Royal Horticultural Society on April 5 by Mr. W. Crump, V.M.H., of Madresfield Court Gardens, Malvern, and it was agreed that if it cooked well an award of merit should be given to it. The cooking, which took place at Wisley, had the most satisfactory result; hence the award of merit given at a recent meeting at Vincent Square. The variety is of American origin and has been in commerce for some years, but still is neither well known nor much grown. The fruits are of medium size, rich in colour, have a peculiar Quince-like flavour, and the trees are good croppers. Growers of the Apple Wagener speak highly of its productive qualities.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Alpine flowers under glass.—I am sorry that your correspondent E. H. Jenkins should have any difficulty in understanding what I mean. If a glass house is of advantage, surely such an "old sinner," as Mr. Jenkins says he is, ought to be able to say what kinds do best under his method of treatment, and also what is the cost. Assuredly Saxifraga burseriana and all its varieties are not of the number. It is very questionable if even a glass covering will prevent "slug molestation." I maintain that anyone may grow alpine plants out of doors without any covering better than with it. To doubt this you at once take away a laudable desire of amateurs and others who have "no elaborate gardens," but who may wish to grow a few alpines.—A LOVER OF ALPINES.

The proposed International Horticultural Exhibition.—In reference to this subject, the letter of "A F.R.H.S." (page 199) is a most appropriate one, and the writer justly places his finger on the weak points of present-day exhibitions, many of them, as he so truthfully describes, being given up to the creation of mere crowded groups in which the cultural capacity of the grower has been submerged. If we are to have an exhibition worthy of British horticulture and one that will leave a lifelong memory on those who witness it, the scheme must, as your correspondent says, be very bold. Such was the exhibition of 1866 which, though I was then but young in years, left on my mind many impressions which will never be eliminated. Nowadays, taking one of our largest exhibitions (the Temple Show) as an illustration, the result is a confused jumble from beginning to end, which leaves no permanent mark on one's memory. Every year the Council of the Royal Horticultural Society, in its Book of Arrangements, asks exhibitors to make their groups less crowded; but as time comes round the old order prevails, and many of the groups serve as an illustration of how it is possible to get so many plants within a given space. Individuality is in this way altogether lost. I am fully aware that in the Temple Gardens the society is cramped for room; but if exhibitors would follow the advice given and show only of their best, which at the same time must be worth showing, matters might be considerably improved.—H. P.

Material in the rock garden.—I have read with great interest your notes from Mrs. Davidson's book, "The Rock Garden," and I note with some amusement her comments on the use of "clinkers" by the suburban gardener. Now, it is most necessary to remember that while a love of plants may be in every heart, it is by no means follows that money is in every pocket, and the suburban gardener, like anyone else, has, perforce, to do the best he can. I take it that no one would use clinker if he could obtain sandstone, any more than he would live in the suburbs if he could afford to live in the country; but since he must live in the suburbs and cannot afford sandstone, he must make the best of such material as comes in his way. The objection to "rooteries" I fully endorse, since pests must increase and multiply therein, while sooner or later the hapless owner is faced by a tottering heap of decay which he can neither mend nor get rid of; but since some substitute for stone has to be found, I think it would greatly benefit the poorer brethren of the craft if THE GARDEN would open its hospitable columns to suggestions of material. I have seen suggested the clinker before-mentioned dipped in liquid Portland cement; but in this locality the humble clinker costs 10s. a load, so great is the demand for this material by the said suburban rock gardener. This may show bad taste, but it shows magnificent determination! Remember, Mrs. Davidson, Ten shillings a load for clinker, and at that the supply is small, since the machine-made brick under improved manufacture does not seem to "clink." Large flints are certainly bald, yet I know of such in a large, raised border, well clothed with all manner of Rockfoils and suitable plants which give great pleasure to its owner and could offend no artistic mind, since it makes no pretence at being anything but flints—and plants. I really think this is the whole case. If your plants, are healthy and your setting not too obtrusive, it is the plants that absorb the gardener's attention

and no one else matters. In my own case, after making enquiries for sandstone, which appears only to be obtainable in thimblefuls of 10-ton loads, and at such a cost that it would absorb my garden allowance for a couple of years, I obtained from a contractor two loads of a material known as "hard core" at 5s. 6d. a load, delivered. This appears to be broken-up concrete foundations such as tram-lines are laid upon, and is in large blocks of uneven shape the colour of stone, and, while very hard, has a more or less natural appearance; so that, regardless of all the writers on style and effect, I have raised with it a sufficiently subdued little rock garden. It is built up on the hillock system mentioned in your issue of April 9, the blocks being carefully fitted upon one another, and the pockets and spaces filled and rammed as the work proceeded. Your paper is so widely read by the small gardener, who, like the prehistoric bushman, first makes his feeble attempt at art unaided, and then raises himself by degrees on the criticism of others, that I think a few words of advice on material would be welcome. I am sure that the suburban gardener should be commended as one who is engaged in a stiff fight with circumstance, and so long as he grows his rock plants thoroughly, with all possible attention to their widely differing needs, we can well afford to overlook the stepping-stones (or clinkers) on which he rises.—H. R. GREEN.

Digging competitions.—An excellent and industrious garden labourer, who had read to him by his employer certain suggestions as to what he could do in digging a specified area of ground with a spade, made in the pages of the Royal Horticultural Society's Journal, has asked my opinion on the suggestion which Mr. Canning thus makes. He offers, though eighty years of age, to dig, or "turn over," which, by the by, is quite another thing, an area of 110 square yards of ground, practically 3¾ rods area, in one hour. Having always in my lectures on soil preparation laid the strongest stress on digging being done deeply, and with loads in front of the spade not exceeding 4 inches thick, to ensure its being well broken up, I can only say that anything more unwise or absurd, as well as most undesirable to secure good culture, can hardly be conceived. I say, were a man a modern Samson, he could not dig, and properly dig, the area of ground named in an hour. Why, if a man worked eight hours per day, he would turn over in that time 30 rods of ground. That is really too ridiculous. One wonders such nonsense should find a place in print. I should greatly prefer good honest deep digging at the rate of one rod per hour than the scamping which must result were this unwise suggestion to be carried out. But that suggestion is but a part of a larger one; that is, when country flower shows are held, and these are invariably in the summer, an acre of ground should be left uncropped, so that teams of eleven men may enter into digging competitions. Is not land better utilised by carrying a good crop than letting it lie idle to have such a worthless competition? We are here, in Surrey, for instance, training over 2,000 boys yearly to use the spade and the fork both in digging and trenching. Such instruction is worth a thousand foolish competitions. My advice to this garden labourer was: "Tell your employer that if he wants good crops in his garden the ground must be deeply and thoroughly dug, and that cannot be accomplished by sweating. If, on the other hand, he wants it merely spudded over a few inches deep, then he can have that work done far more rapidly, but the crops will be worthless." Proper digging is very arduous work, and cannot be properly done by a huge spurt in one hour, but has to be distributed over not only many hours, but many days. When ploughing matches are referred to, it must be remembered by those familiar with them that the prize is not to the man who drives his horses the fastest, but to him who does the best work without making any undue strain on his cattle.—A. DEAN.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

AZALEAS.—Plants of these that have been forced to supply cut flowers or for conservatory decoration will need attention. They must be encouraged to make fresh growth, and those that have been cut very hard should be placed in a warm house, a vinery being suitable. Where repotting is required it should now be done, using a mixture of two-thirds peat and one-third fibrous loam, with a little sharp sand and broken charcoal added. A small shift is better than overpotting. Make the soil firm.

Malmaison Carnations that are throwing up their flowering stems will require staking. Use as small a stick as possible. The tips of the brown Bamboos will be found the most useful, and they are very neat and inconspicuous. The side buds should all be pinched out, allowing only one flower to the stem; small rubber rings may

ERNEST H. KRELAGE. (*See page 212.*)

be passed over the buds of those varieties that split their calyces, and when the blooms commence to open these can be drawn up.

HARDY SHRUBS.

This is a good time to move Hollies, Yews, Box and other evergreens. If the plants are large, the work of lifting and replanting must be carefully done. Take a good ball of soil with the plant, and after it is placed in its new quarters a good soaking with water must be given. Examine all freshly planted shrubs, and if they are at all dry, water should be given. Make firm any that are loose, giving a fresh tie to those that require it. All beds and borders ought to be frequently stirred over with a Dutch hoe. It is very beneficial to the growth of all shrubs to have the surface of the ground kept broken.

Forsythia suspensa.—This is one of the most beautiful of our early flowering shrubs. To obtain the best results it is necessary to prune hard as soon as it has finished flowering. Cut out all the old branching growths and spur back the stronger shoots to within a few eyes. This will encourage it to make strong growths for next season's flowering.

Lilacs should be kept clear of sucker growths, for many of the better varieties are worked on common Lilac stocks.

KITCHEN GARDEN.

Celery.—The earliest batch of plants should now be ready for planting in the trenches. Put them out 9 inches apart either in single or double rows. Take the plants from the box with a ball of soil attached and make them firm in the trench. After planting give a good watering, and shade from the hot sun by placing a few Fir branches over the trenches. This will prevent undue flagging till the plants become established.

Early Potatoes.—As soon as any growths appear above ground, a little soil must be drawn over them to protect them from getting cut by frost. Frame Potatoes must be kept well watered and plenty of air given; in fact. they grow much better if the lights are taken off entirely during warm days.

Lettuces.—Frequent sowings must be made to keep up a good supply. Supreme and All the Year Round are two excellent Cabbage varieties, and for Cos, Alexandra, Superb White and Hicks' Hardy White are good.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

HARDY ANNUALS.—A very fine show can easily be made at little cost by sowing some of the better kinds of hardy annuals. In our Northern gardens it is almost useless to sow in autumn, or even in early spring, as frost, damp and slugs combine to destroy the plants. If sown now they will not, of course, flower very early, but will make up for this by remaining bright until frost sets in. Where a lot of spring bulbs are grown in the hardy borders, it is often advised to sow annuals to hide the bare ground when these have ripened their foliage. Personally, I think this spoils a herbaceous border, and very often the annuals are rather poor and weedy, as the foliage of quite a number of bulbs remains green until the end of June, and the seedlings are so much drawn by this time that they seldom give satisfaction. However, to those who like to have all vacant spaces filled, some of the hardy annuals are as good for the purpose as anything else. If sown during the first week in May, the seeds soon germinate, and the seedlings, if well thinned out as soon as large enough to handle, will quickly gather strength and defy the slugs. Many annuals are very useful for cutting, and should be sown in the reserve garden in masses or beds for this purpose. Some very pretty beds can also be made in the flower garden.

KITCHEN GARDEN.

Beetroot.—Now is the best time to sow the main crop of this valuable winter root. A first-rate place to grow this crop is on the site of last season's Celery trenches, as the manure will be deep enough down to be out of the way of the plants while still in a young state, but will also do them a large amount of service when they penetrate so far. With the extra working the soil has had in digging the Celery crop, it will be in the best possible condition for Beetroots.

Planting Vegetables.—Plants of Cauliflower, Cabbage, Brussels Sprouts, Lettuce, Parsley, Onions and Leeks raised in heat some time ago will now be in good condition for planting out. It never pays to be in too great a hurry, as a spell of cold, damp weather gives a serious check to these rather tender subjects that have been, to some extent, forced. Draw good deep drills for the Brassicas, as this not only protects them considerably from cold winds, but the gradual filling in of the soil with the hoe is very beneficial and steadies the plants without having to earth them up. In a dry season earthing up these crops is very harmful, as not only does the soil

dry more quickly, but there is also greater difficulty in getting water to the roots, more especially if the borders are on a slope.

FRUITS UNDER GLASS.

Vines.—A considerable amount of time will be required to keep the work in hand in this department. Tying and stopping will require to be seen to at frequent intervals. Stop all sub-laterals above the first leaf, unless there is still plenty of space, when another leaf may be left. I have never yet seen the advantage to be gained by allowing, as some growers do, the Vines to run wild. I consider it only a waste of energy, and am a bit sceptical as to its encouraging more activity in the roots. Thinning will now be in full swing in most gardens, and a tedious job it is. In sunny weather it is most trying, and it pays to do the work early in the morning or in the evening.

Peaches.—Tie down the shoots in the early houses and air judiciously and well. To keep the houses too warm may ensure early fruit, but the quality will be poor. Disbud and thin fruits in the later houses, doing this in each case gradually so as to avoid a check.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

WORKERS AMONG THE FLOWERS.

ERNEST H. KRELAGE.

MR. E. H. KRELAGE, whose portrait is given on page 211, is the present head of the celebrated Haarlem firm of bulb merchants which will be celebrating next year its hundredth anniversary.

Established in 1811 by his grandfather (E. H. Krelage), it soon assumed a leading position among its contemporaries. The old gentleman was a very keen florist, and devoted a considerable portion of his time to raising seedlings. Probably his greatest triumphs were with double Hyacinths, which in the thirties were, with Gladiolus ramosus, *the* popular flowers. One of the best double medium blues is still the famous van Spuyk, which old Mr. Krelage raised. Cacti and coniters were also at different periods specialities of his. He died in 1855, and was succeeded by his son, Mr. J. H. Krelage. He soon made his mark by the improvements he effected in the Amaryllis, and by the wonderful collections of Lilies and Pæonies which he got together from all parts of the world. He introduced Galtonia candicans in 1875 and the now famous Darwin Tulips in 1888. In England there will be some who remember his presence at the first Daffodil Conference in 1884 and his advocacy of giving non-Latin names to garden hybrids.

By his countrymen and fellow-citizens his name will always be held in grateful remembrance as being the founder and first president of the General Bulb-Growers' Association, whose Jubilee Show is now, as readers will be aware, taking place at Haarlem. Established in 1860 with 200 members, it can now boast of a roll of 3,200, who come from thirty-nine different districts. The benefits which have resulted from its fostering care have been very marked, and many are the homes to-day which have reason to bless the name of Krelage.

The area of country devoted to bulb culture and the volume of trade in connection therewith have both increased twelvefold in the years that have elapsed since the society's inception. The greatest increase has taken place since 1890.

Dying in 1900, he was succeeded by his son, the present Mr. E. H. Krelage, who has continued the business of the firm on the old lines, and who inherits his father's love of books and public spirit. For many years now he has been a prominent public man in his native town, and it must have been a source of great pride and satisfaction to him when, in 1906, he was selected to occupy the position in the Bulb-Growers' Society so long and so honourably held by his father. It is in virtue of this office that he is accorded the prominent place in the many public and semi-public functions that are taking place in connection with the Jubilee, a position which it is universally recognised by both the foreign guests and his fellow-members he occupies with great dignity, knowledge and tact.

CROCUS AERIUS. (*See page 213.*)

An immense amount of work has fallen on his shoulders, but his executive committee has worked splendidly, and, under the able guidance and grand example of their chairman, Mr. T. van Waveren, has been largely instrumental in making the show the great success that it undoubtedly is.

Mr. Krelage's horticultural activities are not limited to his business or even to this one society. He was the founder, and for a long time the active supporter, of the Bulb-Exporters' Association, and he has been the means of bringing about that federation of horticultural societies in the Netherlands which has resulted in the establishment of a somewhat similar national society to our own Royal Horticultural Society.

Full of knowledge, reserved in manner, dignified in bearing, the very essence of gentlemanly courtesy, he is an ideal occupant of the high office of president of the General Bulb-Growers' Association. Long may he reign. JOSEPH JACOB.

THE KITCHEN GARDEN.

MILDEW ON PEAS.

SOME kinds of plants are naturally freer from attacks of mildew than others when grown under exactly the same conditions. Indeed, I may go much further and say that some varieties of the same kind are freer. I have noticed this to be the case with Peas; but the main object of the present note is to draw the attention of readers of THE GARDEN to the fact that Peas are often ruined by mildew, in some seasons even when there has been no question of over-dryness at the roots of the plants.

Any check to growth will predispose the plants to attacks of mildew, and indiscriminate watering is mischievous, because the roots of the plants are regularly chilled. I know of one case where the Peas were grown near the banks of a river, and during one very dry summer the trenches were filled with water several times each week from the river. The result was that the Peas were more mildewed than any had been in years past. Furthermore, plants growing in other gardens, but not deluged with water, did not suffer as much. It is a good plan, I am sure, to sow fewer seeds at a time, but much more frequently than is the case with gardeners generally.

I am a firm believer in having the soil deeply dug or trenched and well enriched with rotted manure for Peas, also in rather deep sowing of seeds of maincrop varieties, and in early and continuous mulching of the growing plants. Treated in this way Pea plants will not suffer much from mildew though they receive very little water in ordinary dry seasons. Application of water need not be given so frequently, as the surface mulch prevents undue evaporation of moisture from the soil and so helps to keep the surface roots healthy. When watered the roots naturally come near the surface where they quickly perish if the soil is not maintained in a regular state of moisture. The application of surface mulches does not entail much labour. AVON.

DOBBIE'S GOLDEN BALL TURNIP.

THIS is much less grown in the Southern than the Northern parts of the country, but there can be no question whatever that Golden Ball is one of the best of the yellow-fleshed Turnips in cultivation, and in shape and size equal to the well-known Model White or the Snowball; indeed, it may be classed as a perfect root and invaluable for the early autumn and winter supplies. I do not know of any Turnip that is more valuable for use from December to April, on account of its extreme hardiness, and, in addition, its splendid flavour is much liked.

I am aware the Southern growers do not take kindly to the yellow Turnips, but this prejudice is gradually being overcome. Their superior flavour in the winter should make them favourites, and their hardiness also is a strong point in their favour. Seed sown in May and June will give perfect roots in August and September, and for later use seed sown early in the last-named month will give good roots in the South, and these will remain solid for a long time. For keeping purposes large roots are not required. When stored Turnips should never get much warmth; just free from frost is best. I have found that the early September sowing winters well in an open quarter. G. WYTHES.

THE FRUIT GARDEN.

FRUIT NOTES.

CATERPILLARS AND GOOSEBERRIES.—One of the serious troubles of the grower of small fruits is that of keeping the Gooseberries perfectly free from the attacks of either of the caterpillars, which are so partial to the young leaves. These pests appear to be always with us, and if they are permitted to have their own way entirely, they will completely defoliate the plants, and it is quite obvious that, when this occurs, loss of energy must result. From the present time onwards a sharp look-out should be kept for the first visitors, and destruction must be meted out to them before they can have done material injury. Frequent dusting of the bushes while they are damp with dew or after rain with newly slaked lime is excellent, but the dressing must be so thoroughly applied that it reaches every part of the stems and branches and both the under and upper surfaces of the leaves. Beneath the leaves and on the protected portions of the stems this will adhere for some time; but to ensure the best results it is essential that the dressing shall be repeated after heavy rains. In the possible event of the infestation being so bad that it is imperative to take more drastic measures, then the cultivator should utilise white Hellebore powder, distributing it evenly over the entire plant, preferably through a Malbec or other suitable bellows apparatus. This will kill every caterpillar with which it comes in contact; but it must always be borne in mind that it is poisonous, and must, therefore, be handled with the greatest care.

CROPPING YOUNG TREES.—It is, no doubt, natural that the amateur who plants two and three year old fruit trees should look for some returns in the form of a crop the next season, but it is never wise to place this strain on them. Since it is acknowledged that fruit trees are planted with the object of producing crops over a long series of years, it is always to the best interests of the owner to use every endeavour to give them a thoroughly good chance to establish themselves at the roots and to form a sound foundation in the branches before they are called upon to yield. Over-eagerness in this direction means that the trees will be stunted at the outset, and the probabilities are that it will be a considerable time before they can be again persuaded to make satisfactory progress. One or, perhaps, two fruits may be permissible, but the trouble is that the amateur cannot find it in his heart to reduce to such a number, and rather than run the slightest risk it is far wiser to take off the lot.

WEAK TREES.—Generally speaking, newly planted trees get away far more strongly than the good cultivator desires to see, and it is common for them to have to be lifted and replanted the first year simply with a view to checking this tendency towards undue luxuriance. There are occasions, however, when they do not start at all well, and it is necessary to afford them some encouragement to advance. This can be done by the judicious use of weak liquid manure. Before this is given, the surface of the soil should be very lightly pricked over with a fork, and as soon after application as the soil has dried sufficiently to permit of it, loosening must be done, and every endeavour should be made to keep the crop open for the admission of rain and warm, fresh air. Towards the end of May or early in June the surface should be pricked over and a mulching of short, sweet manure applied.

MULCHING STRAWBERRIES.—Before the mulching of long litter is spread between the rows of strawberries it is excellent practice to loosen the surface of the bed with a fork, or, if preferred, a hoe, and then to apply a light dressing of some approved fertiliser. This is not always advantageous, but where a shortage of food is suspected it always does good. FRUIT-GROWER.

THE FLOWER GARDEN.

THE FASCINATION OF THE CROCUS.

AUTUMN CROCI.

(Concluded from page 201.)

THE rock garden provides a congenial home for most of the smaller and choicer species, especially in such a position as at the foot of a large stone; but best of all for the very choicest is a strip a foot wide in the front of some sheltered south border with a low edging, such as stones or tiles, not Box, which shades them too much and makes such good roosting for hateful slugs. Here is the happy home demanded by such gems as Chrysanthus in its many varieties, and the dainty aërius (see page 212), both of which need looking into closely to fully appreciate their charms. I find it a good plan to sink slates or flat stones, to make little underground dividing walls between the different varieties. They can then be planted right up to these divisions, and so much closer than where there is no means of telling the boundary of each species at lifting-time. As a further precaution against mixing I find it very useful to plant those with different makes of corm tunics next to one another, such as Sieberi, with coarsely reticulated tunic, next to pulchellus, with smooth and annulate tunic, on one side, and aureus, with its parallel fibres, on the other.

I believe a Crocus generally likes to be some 4 inches at least below the surface, and that its corm should rest on, and be covered by, a distinctly sandy soil. Then a good rich, even stiffish, soil may be below for the roots to penetrate in search of nourishment. I place a layer at least half an inch deep of silver sand on the bottom of a hole, then lay the corms on it and just cover them with sand, filling up the hole afterwards with ordinary soil.

In conclusion, a few words to those who wish to save and sow seeds. The ripening capsules begin to appear above ground about the middle of May, zonatus and some early autumnal species perhaps rather earlier. They should be gathered as soon as they begin to open and be placed in a dry place. I find the Willow-chip boxes, sold in nests of four and used so much by entomologists, are excellent for the purpose, as the name can be written on the lid. As soon as the harvest of seeds is gathered in they may be sown, but it will be still in good time if they are in by mid-September. I prefer to sow in small pots, and sink these in the ground for two seasons, when, in July, they may be turned out, and, if all is well, the young corms will be about the size of Peas, and generally all collected at the bottom of the pot. These may be pricked out in rows in a bed and left there to flower. A few may give a small bloom in their third year, but most will wait until the fourth, and some even for another season. Cross-pollinating is not very easy. The anthers of the desired seed-bearer should be snipped off with small scissors before dehiscence, of course, and when the stigma appears fully developed the pollen should be lightly placed on it, if possible on a sunny morning when the blossom is naturally open. To do this an anther from the pollen parent may be gently rubbed against the stigma, or, should the pollen not be plentiful, a stick of sealing-wax or small piece of amber, electrified by being rubbed on some woollen material, such as one's sleeve, will cause pollen grains to spring up and adhere to it when placed near an open flower, and they can be transferred to the stigma more easily than when gathered on a paint-brush.

Waltham Cross. E. AUGUSTUS BOWLES.

PULMONARIA OFFICINALIS (BLUE JERUSALEM COWSLIP) ON THE TOP OF A RETAINING WALL.

THE JERUSALEM COWSLIP ON A WALL.

THE accompanying illustration shows a plant of the Jerusalem Cowslip (Pulmonaria officinalis) on the top of a retaining wall in a Scottish garden. The wall was built to uphold a portion of a bank of soil, and is about 6 feet high, the Pulmonaria being grown on the top and in ordinary soil. The position is almost due east, with a point of north, and the Pulmonaria shown was planted

about two years ago. Although the exposure is east, the plant receives sun over the bank upheld by the wall for a considerable time during the summer, but it is so accommodating that it can be cultivated successfully in either sun or shade. The Lungworts seem particularly suitable for such a wall, and the red-flowered variety of this Jerusalem Cowslip is succeeding equally well on another part of the wall, although it is not such a pretty plant in its colouring. The blue one shown is very pretty, with its many flowers of a bright blue well shown on a good plant. At one time considered common plants, these Pulmonarias are deserving of a better fate than neglect, and the blue one, when secured in a good form, such as that in the illustration, is worthy of the notice of lovers of wall gardening of this kind. S. ARNOTT.

SOME SUGGESTIONS FOR BEDDING.

THE success of bedding out depends to a great extent on the way the plants are arranged in the beds and on a suitable mixing of plants and colours. For instance, Nicotiana affinis, which is grown chiefly for its fragrance, would, in some positions, be inconspicuous and attract little attention, whereas if planted in a bed with the rich dark foliage of Ricinus cambodgensis as a background it would give a very handsome and bold effect.

The most effective bed of Phlox Drummondii grandiflora I have seen was under a large Araucaria or Monkey Puzzle tree. Two colours were used—yellow and salmon pink. A very light and pleasing effect was produced by half the shoots being trained to stakes at different heights and the remaining shoots pegged down. In this way all the flowers could be seen at a glance through the branches of the tree. This yellow Phlox, being of a dull tone, harmonises well with the lovely blue of Salvia patens, and the dense, shrubby plants of the latter hide the untidy appearance of the Phlox when this is past its best.

Most of the fragrant annuals are lacking in colour and brightness, but in Lupinus luteus we have one which combines a very sweet fragrance with brightness. It is yellow in colour and a neat, compact plant about a foot in height; one of the best of our hardy annuals. This would make a very pretty and fragrant bed if planted with the Night-scented Stock (Matthiola bicornis) and Schizopetalum Walkeri, another fragrant annual, and if the bed is in close vicinity to the house or garden seat the full benefit of their scent will be obtained. Annual flowers are not perhaps quite suitable for bedding, but their varied colouring and sweetness are always welcome.

St. Albans. W. M. B.

THE NEW ROSE JULIET. (*Natural size.*)

ROCKERY AND POND TWO YEARS AFTER ITS FORMATION.

WE are indebted to the Rev. R. H. Wilmot Bishopstone Rectory, Hereford, for the photograph of the small rock garden and pond from which the accompanying illustration is reproduced. Mr. Wilmot writes: "I enclose a photograph of my little rockery in case it should be suitable for reproduction. The rockery was less than two years old when the photograph was taken last summer, and the little pond with the stepping-stones and the Irises had only been made and planted a day or two when the photograph was taken."

THE ROSE GARDEN

SEASONABLE WORK.

WITH the lengthening days and glorious sunshine Roses have made rapid growth, and the plants will now require much attention. As with plants in the open ground, the small superfluous shoots are best dispensed with, for not only are they a strain upon the roots, but they also hinder the free circulation of light and air. It cannot be too much emphasised that Roses require for their foliage an abundance of light, so that tying out the shoots to sticks will not only afford more light to the foliage, but also assist in making a shapely plant.

Watering is always one of the hardest lessons for the novice to learn, and perhaps there is no detail in growing Roses indoors in which greater errors of judgment are made. It is not always when the surface soil looks dry that watering is needed. A very safe guide is to tap the pots with a stick, and if they give off a clear, bell-like sound, water is required. When it is given, let it be a fairly copious draught and see that it can pass away freely from the holes in the pots; if not, the plants should be examined and their drainage cleared of soil.

Plants showing flower-buds may have a watering with guano water, mixing this at the rate of about 1lb. of guano to eighteen gallons of water, and giving each plant a good watering with it about once a week until colour is seen in the buds. Exhibitors who desire large flowers will find the following a good stimulant: Dissolve half an ounce each of saltpetre and phosphate of potash in a gallon of water, and give a liberal watering to each plant, varying this with the guano water mentioned above.

Where Roses are planted out under glass, watering must be carefully attended to. If the soil is a light one, obviously it will require watering more than heavy soil. To find out if the borders need watering, dig out a spadeful of soil, and if at all dry, watering must be given at once. If the surface is hard, just fork it up lightly before watering. After watering a thin layer of fresh cow-manure spread over the soil is of much benefit to the foliage and also to the roots.

Fire-heat is advisable on dull, cold days and nights, but on warm days artificial heat should be reduced to a minimum. Keep a nice buoyant atmosphere, which the Roses will much appreciate. It is not advisable, however, to charge the atmosphere with too much moisture at night or that troublesome fungus, black spot, will soon appear.

Ramblers and other Roses coming into bloom should be placed in a cold house, if possible with a north aspect; their development then is much

better. As Maréchal Niel and suchlike climbing Teas and Noisettes go out of bloom, the oldest and most exhausted growths should be gradually cut out; this will encourage the production of young rods for next season.

THE NEW ROSE JULIET.

THIS really remarkable novelty, which was exhibited by Messrs. William Paul and Son of Waltham Cross at the Royal Horticultural Society's meeting on the 5th inst., is another example of what we owe to the science of cross-fertilisation. Here we have a Rose whose seed parent was Captain Hayward portraying in a marvellous manner in foliage, growth and bloom the distinct characteristics of its pollen parent Soleil d'Or. The fusion of scarlet crimson and orange gold of the two parents has produced an offspring whose petals on the inner side are a sort of old gold colour and the backs of the petals a beautiful carmine crimson. The blooms are large, of somewhat irregular form, but exceedingly attractive in the opening stages; unfortunately, the novelty of colouring wanes in the expanded flower. In vigour it is almost comparable to a Hybrid Sweet Briar, but no one can mistake its origin on the paternal side when the Rose is seen growing. Yearling plants produce thick, reddish-coloured wood that will run up to a height of 6 feet to 8 feet, and the grass green foliage and its peculiar fruity fragrance are other indications that it owes its origin to Soleil d'Or. We hope early in the autumn to publish a coloured plate of this beautiful and fragrant Rose, when its delicate colours will be seen.

CLOTHING THE STEMS OF STANDARD ROSES.

MANY years ago it was a fairly common practice to plant Honeysuckles against standard Roses so that the stems of the latter were quite hidden by the growths and blossoms of the Honeysuckles, and which, as may be readily imagined, gave a very interesting appearance to the garden. Honeysuckles may be kept in bounds by pruning, and if the tops are stopped and the lateral growths well spurred, an abundant blossoming is assured. Lonicera fuchsoides would be a beautiful sort to clamber upon the stem of a Frau Karl Druschki, the scarlet of the Honeysuckle contrasting admirably with the snowy purity of the Rose. If one prefers to plant Roses instead of Honeysuckles for the purpose of covering the bare stems of the standard Roses, what could be more beautiful than the pretty wichuraiana Roses such as Elise Robichon, Alberic Barbier, Edmond Proust and others, whose exquisite foliage would at all times please the eye? In their case it might be necessary to lift the plants occasionally to check the very luxuriant growth, and, of course, the superfluous shoots could be pruned away each season, and those retained reduced to the height of the stem. By cutting the laterals back to one or two eyes, these growths would flower freely. P.

THE GREENHOUSE.

CINERARIAS AND THEIR CULTURE.

THE greenhouse Cineraria is one of those old-fashioned flowers which have held their position in the public favour for many years unchanged, without ever coming prominently to the front. For conservatory and other decorative purposes the Cineraria is indispensable, and is usually to be found in practically all gardens during the winter and early spring. As in most other flowers, many improvements have been made in the Cinerarias during late years, and to-day we have them in various types and in practically every shade of colour ranging from pink, white and mauve to deep blue, crimson and purple.

The three most useful types of Cinerarias are the old florist's or large-flowered type, the tall-growing stellata and the Cactus stellata types. The two first-named are, of course, familiar to everyone. The Cactus sort is of more recent introduction and has become exceedingly popular. In habit it has graceful and free-flowering qualities of the stellata type, but the flowers are very striking, the petals being charmingly quilled like those of the Cactus Dahlia.

Perhaps the greatest charm of the Cineraria lies in its easy culture and accommodating habits. It requires very little attention and only just sufficient heat to protect it from frost. For winter and early spring flowering the seed should be sown during May and June in shallow boxes in a cool house or frame. Prick off the seedlings when large enough, and ultimately pot off singly into a mixture of good old loam and leaf-soil, with a little rotten manure and sand. They should remain in a cool frame, syringing them daily and giving plenty of air until they are potted into their flowering pots (about 7-inch) during November. The final potting mixture should be as coarse as possible. At this stage they are best taken into a cool house and grown on until the buds develop, when a little liquid manure will be beneficial, gradually increasing until the flowers open. The Cactus varieties will require a neat stake to prevent them snapping at the base, as they are rather brittle.

The plants should be regularly syringed and carefully watered, and up to the time of flowering an occasional fumigating is advisable, as green fly, if allowed to go unchecked, quickly disfigures the foliage. C. H. MIDDLETON.

A SMALL ROCKERY AND POND AT BISHOPSTONE RECTORY, HEREFORD, TWO YEARS AFTER ITS FORMATION.

HOW TO GROW GOOD BOUVARDIAS.

ALL amateur gardeners who possess greenhouses from which they can exclude frost in winter-time and fogs in the autumn ought to grow a few plants of both single and double flowered Bouvardias. Inexperienced cultivators need not hesitate to grow these plants, as, if they have succeeded in growing nice specimen Fuchsias, they will be equally successful in cultivating the Bouvardia. The following hints will be found useful. A good beginning is essential to a satisfactory finish, and so I would urge the amateur to procure a few small plants at once and not to rely upon late-rooted cuttings. I have seen many very promising young plants quite ruined through being grown in a too high temperature and close, moist atmosphere. Avoid coddling the plants; but from this date until well on in September give them fairly hardy treatment. One word of warning here. These plants are easy victims to attacks of mealy bug, thrips and brown scale. Commence with absolutely clean stock, and afterwards watch so that no enemy gains a footing on the foliage.

When young plants are well rooted in 3½-inch pots, repot them into 5-inch ones, and again, in due course, into 6¼-inch pots, inside measurement. In the latter sized pots the plants must be allowed to flower.

The compost used must be the same for each potting, only at the final potting the fibrous loam should be a trifle more lumpy. Fibrous loam two parts, leaf-soil one part, rotted cow-manure and sand one part; these ingredients form a suitable compost. Do not press down the soil too firmly around the roots, a moderate pressure being sufficient. When potted place the plants in a frame and water them, also lightly shade from bright sunshine. Instead of having to water very often, just syringe the foliage early in the morning and late at night for about ten days, or until the roots begin to permeate the new soil. Then cease all shading, ventilate freely and pay close attention to watering, also to feeding when the pots are filled with roots after the final potting. Judicious pinching of the more straggling shoots until the beginning of August will induce a bushy habit of growth.

The amateur should commence with the following varieties: Vreelandi, white; President Cleveland, scarlet, single-flowered; President Garfield, pink; and Alfred Neuner, white, double. AVON.

GARDENING FOR BEGINNERS.

PLANTING OUT SWEET PEAS.

GARDEN WORK WEEK BY WEEK.

KITCHEN GARDEN.—During the coming week is a good time to sow seeds of Savoy Cabbages and Kale for winter use. If sown earlier the plants of the former heart in at too early a date, and the Kales invariably get overgrown and are then less able to withstand severe frosts. I prefer to sow the seeds thinly in shallow drills 9 inches apart, as the seed-bed can then be kept free from weeds much more easily. For small gardens one of the dwarf-growing and rather small-hearted Savoy Cabbages should be chosen, as these are usually of the best quality, and can be planted in rows 18 inches apart and 12 inches asunder in the row. Of Kales there are a great variety, Scotch Curled and Drumhead being two excellent sorts. The latter forms a good-sized, solid heart much after the style of a Cabbage, and as it is very hardy it proves a most valuable winter green. Sprouting Broccoli, both purple and white varieties, may also be sown during the next week or two, the plants resulting from this sowing coming in for use another spring.

Flower Garden.—Where it has not already been done, no time must be lost in preparing the soil for Dahlias. These will have to be planted out about the middle of May, and the ground should have time to settle before then. Where a bed is to be planted entirely with Dahlias, it should be dug to a good depth and all large lumps pulverised, adding at the same time a 4-inch thick dressing of thoroughly decayed manure. Although the Dahlia is naturally a gross feeding plant, it is a mistake to provide it with rank, fresh manure, as this induces the formation of a mass of stems and foliage and very few flowers. Where odd plants are to be dotted about in the borders, a hole 18 inches in diameter and at least the same in depth should be dug out, working a good quantity of decayed manure with the soil as it is returned to the hole. In planting Dahlias it is a good plan to always set each in a shallow, basin-like depression, as this facilitates watering, which is sure to be needed during dry weather. This is mentioned now as the depression may easily be left when preparing the stations for the plants. Bedding Calceolarias and Pentstemons should be put in their flowering quarters at once, so that they have a fair chance of becoming established before very hot weather is experienced.

Fruit Garden.—Strawberries are now pushing their flowers upwards at a great pace, and it is a good plan to give them a little stimulant at this time. I have found sulphate of ammonia a good manure for the purpose, and prefer it to nitrate of soda as it is somewhat slower in its action. It should be finely crushed, and a teaspoonful may be scattered round each plant, preferably during showery weather. This may be supplemented in about three weeks' time with a similar application of nitrate of soda. Plants treated in this way develop healthy green foliage and swell their fruits better, the colour of these also being improved. Keep the hoe going freely among all kinds of fruit trees and bushes, but be careful when working between the Raspberries not to cut the young shoots which are springing up from the base and which will form the canes for fruiting next year.

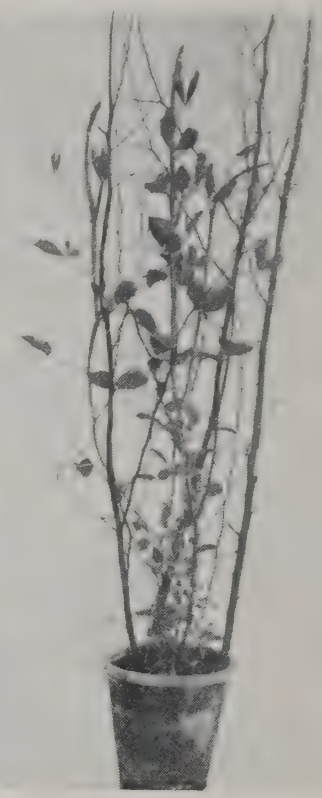
Window-boxes.—It will soon be time to prepare these for the reception of their summer occupants, and where the boxes are at present empty, the sooner they are got ready the better. Each box should have two or three bars, 1 inch thick, nailed to its bottom outside, so that when stood on the window-sill the box itself is raised slightly from the stone. Not only does this facilitate drainage, but it helps to preserve the boxes. Of course, good drainage is essential, but if a good number of holes, not less than half an inch in diameter, have been made, one large crock over each will suffice for the summer, as, of course, there is not the same danger of the soil becoming waterlogged as there is during the winter months. Of course, some rough portions of the soil will be placed over these crocks before the mixture proper is put in. Unfortunately, many who desire to have window-boxes have to make the best use of any soil that is available, and it is really surprising the good results which are obtained from very inferior material. Where it is possible, however, good turfy loam should form the basis of the soil used, taking three parts of this and one part each of well-decayed manure and road sand. If a sprinkling of steamed bone-flour, say, a 4½-inch potful to each bushel of soil, can be added, so much the better. A compost of this description can be relied upon to suit practically all kinds of plants that are grown in window-boxes. A. A.

1.—A STURDY SWEET PEA PLANT IN SUITABLE CONDITION FOR PLANTING OUTDOORS.

PLANTING SWEET PEAS OUTDOORS.

WITH the advent of more genial weather, the Sweet Pea enthusiast, especially if he is a beginner, naturally looks forward to the time when he may plant outdoors the numerous seedlings he has succeeded in raising during the last month or two. Much depends upon this being properly done, and to achieve success it is of the highest importance that the plants be in fit condition to plant outdoors when the time for this operation arrives.

All too frequently Sweet Peas raised under glass get drawn and weakly in consequence of being treated too kindly and too generously, and unless special pains are taken to carefully harden off the plants previous to planting them outdoors, the chances are that these tender young plants will have a serious set-back and take some time to regain their earlier vigour. We have now arrived at a period when Sweet Peas that were raised in pots in heat some time ago may be planted in their flowering quarters. Of course, it would be most unwise to transfer Sweet Peas raised in this way straight from the greenhouse to the prepared quarters outdoors. They must be hardened off first by placing them in cold frames for a time, where air may be given more or less freely, until the growths are nicely hardened off and will bear exposure to the open without inconvenience. If this rule is observed with the plants, they should be represented by sturdy specimens such as are shown in Fig. 1. This plant is well rooted in a deep "thumb" pot, and has been exposed to the open for some days, the frame-light only being placed over the plants at night when frosts have threatened. In Fig. 3 a box of plants that have been treated in precisely the same fashion is shown.



2.—SWEET PEA GROWN IN LARGE POT FOR GREENHOUSE CULTURE OR FOR CULTURE OUTDOORS. THE SINGLE PLANT IS 4 FEET HIGH.

The question arises: When should the Sweet Peas be planted outdoors? This is a matter that requires some little consideration, as all gardens are not located in favourable quarters. In a high and dry situation, and in a sunny or warm aspect, it is perfectly safe to plant out Sweet Peas that have been hardened off in the manner we have suggested, with the certainty of achieving success, from the middle of April onwards. Therefore, beginners in Sweet Pea culture should quite understand the location of their gardens. In those gardens in low-lying situations, where the soil, too, is of heavy texture and the conditions hardly as genial as we would desire, I would defer planting the Sweet Peas until the present time or even a week later.

Whether to plant in rows or clumps is a matter for the individual grower to determine for himself. Hedges may be made of the Sweet Pea, in which case, of course, the plants would be put out in rows; but for pretty effects in the garden clumps have advantages which those in rows do not possess. For exhibition purposes I have a decided preference for growing Sweet Peas in rows. The beginner should allow at least 8 inches

3.—SWEET PEAS RAISED IN A BOX. THESE PLANTS ARE NOW READY FOR PLACING IN THEIR FLOWERING QUARTERS.

between the plants in the rows, and he may, if he has the space available, give the more vigorous-growing plants a space between them of fully 12 inches. This will enable him to grow Sweet Peas of high quality, and in such a way that the plants will render a good account of themselves.

When planting in rows for garden decoration or for ordinary cut-flower uses, it is advisable to alternate the plants in the row, placing one on one side of the trench and the next on the other side, and so on right throughout the row, observing the same distance throughout as herein recommended. Those who wish for even better results should confine the plants to a single row.

Should the Sweet Peas be planted in clumps, see that the circle forming the clump is 3 feet in diameter. It is fatal to plant the Sweet Peas in a crowded fashion, because in a little while, when the growths are numerous and also vigorous, they interfere so very seriously with one another, and the display as a whole is very considerably marred in consequence. The clumps should be arranged to run across the garden at intervals of about 3 feet to 4 feet, and if there are sufficient plants for two or more rows of clumps, the rows should be at least 4 feet apart; I prefer 1 foot or 2 feet more. Turn the plants out carefully and plant as advised above, taking out sufficient soil to embed the plants level or rather deeper than the surface soil in the pots. Press the soil round the roots firmly and complete the operation. Insert small twigs for the support of the Sweet Peas if this has not been done already, and if the weather is dry, water in with the aid of a fine-rosed can.

Take care to label the plants as they are planted; otherwise confusion will certainly arise, and the colour schemes that it is desired to bring into effect may be spoiled through this want of thought.

There may be beginners who have little or no garden space available for planting the Sweet Peas in the free fashion that most gardeners love to see. They have to be content with placing them in pots, tubs, or any receptacle of a similar character that will enable them to grow the plants satisfactorily and yield good returns.

In Fig. 2 an illustration is shown of a single plant of the Sweet Pea growing in a 10-inch pot. This has four leading growths of a most vigorous character, each of which, in the not distant future, will throw out many lateral shoots, completely covering the stakes inserted for their support. It is astonishing what one Sweet Pea plant will yield when properly grown, and no one can deny that their display is always a welcome feature in gardens of circumscribed areas. I commend this practice to those who are fond of Sweet Peas and have little opportunity of growing them in the orthodox fashion. Sweet Peas must have good soil and the pots must be well crocked and properly drained, and not the least important item of culture is that they must be potted firmly. Ample supplies of water must be forthcoming when the plants begin to make progress, as in no circumstances must they be allowed to become dry at the roots.

Fig. 4 represents a small pot of plants that were topped some weeks ago for the purpose of providing a supply of cuttings. Since that event the plants have sprouted into several new growths. Such a potful of Sweet Peas may be placed in a 10-inch pot straight away, or by a gradual process, in easy stages, smaller pots may be requisitioned until the 10-inch or larger pot or tub is used in which to flower the plants. If more convenient, these plants may be planted to form a clump or be divided and planted individually in rows. D. B. C.

PLANTING PENTSTEMONS.

THESE lovely border flowers are again becoming very popular. One cannot wonder at this, as the plants are readily raised from young slips and are not difficult to keep from frosts during the winter-time; the only appliance required is a cool frame or a hand-light. Amateurs who can succeed in growing Calceolarias may do so with Pentstemons equally well. The plants are also easily raised from seeds sown in spring and from cuttings of young wood inserted in sandy soil in a shady border any time during the summer months. The resultant plants flower early the following summer. It is much wiser to sow seeds in pots early in the spring and make use of a gentle hot-bed than to insert cuttings very late in the autumn, because late-inserted cuttings do not form roots before the springtime comes; they only form a callus in the autumn, and are, consequently, through lifting by frosts, more liable to be lost.

Whole beds of Pentstemons look well in the flower garden; but I think they are very attractive in groups in side borders where they have a backing of nice healthy evergreen shrubs. Ordinary sandy loam with a small quantity of manure in it will suit these plants; but where clayey soils obtain, mix some leaf-soil with them prior to putting out the plants early in May.

PLANTING AND SUMMER TREATMENT OF LEEKS.

EVERY cultivator of vegetables likes to excel in the growing of Leeks. Not only the professional, but the amateur gardener also tries his utmost to produce some specimens that will claim the special attention not only of the judges, but the public, too.

The Leek gives the cultivator an opportunity to rectify slight errors in the treatment, because it is a gross feeder and continues to grow for a long period. The errors of planting in a cold subsoil, or too close together so that there is not sufficient soil for earthing-up purposes without doing damage to the roots in obtaining it, must be strictly avoided, because no amount of after-care can make amends for these.

As previously stated, the Leek is a gross feeding plant, and so it is a wise plan to deeply trench the soil at least 2 feet wide and 30 inches deep where the trench is to be opened. While digging the soil put in plenty of well-decayed cow-manure, if it is available, in the lower part of the dug area. The roots of the plants will, in due course, permeate the soil on both sides of the trench, and the result will be finer specimens than those grown in trenches which have manure in the bottom only.

The young Leeks should be grown in rich, firm soil in their early stage; the plants are quite hardy, but they must be planted in a sheltered position in a bed specially prepared for them. This bed should be made up of rich loam two thirds and leaf-soil one-third, the compost being 7 inches deep resting on a layer of decayed manure 3 inches deep. Put out the plants 6 inches apart each way. The soil must be firm.

Plant the Leeks 1 foot apart in the trenches early in June, removing them from their nursery bed with as much soil adhering to their roots as possible. The trench should be 1 foot deep and 18 inches wide at the top. For ordinary use Improved Musselburgh is a good one; for exhibition The Lyon is one of the best. SHAMROCK.

THE TOWN GARDEN.

PERPETUAL-FLOWERING CARNATIONS.—No plant or group of plants has sprung into greater popularity during recent years than the Perpetual-flowering Carnation, by which is meant that section of the flower which first became popularised under the name of "American-flowering." To-day, however, as was prophesied years ago, there is not wanting proof that the British raiser of this type of Carnation, as in all others, is holding his own; indeed, there are not a few who, while paying every attention to the cultural side of the question, are also devoting much time to the raising of new varieties, some of which, like R. F. Felton, Countess of March and Carola, to name but a few, have, so far as I am aware, no equal among American-raised varieties. Thus it is that the amateur may with the utmost confidence purchase these varieties, knowing that he is obtaining the best the world produces.

SECURING YOUNG PLANTS.—This is an excellent time for making a beginning, and there is no better way than that of securing young plants already established in 2½-inch or 3-inch pots. These will be ready for planting into pots of larger size so soon as they come to hand, the 5-inch diameter size being the most convenient for affording a liberal shift to the young plant.

4.—THREE PLANTS THAT HAVE BEEN TOPPED FOR CUTTINGS, SHOWING GROWTHS THAT HAVE SUBSEQUENTLY DEVELOPED.

For this shift clean pots and well-prepared soil should be in readiness before the work is started. Too frequently dirty pots are used; and there is no better way of introducing or reintroducing disease and an unhealthy condition than by the use of unclean receptacles. Old pots, thoroughly washed and dried, are the best for all purposes of potting, the perfectly new pot, because of its extreme dryness and porosity, being less good,

and which should be dipped bodily in water a few hours before being used.

Preparing Soil for Potting.—The soil should consist of good yellow fibrous loam, while the addition of leaf-mould and a very small proportion of finely sifted manure and some sharp sand will be needed to keep the whole mass porous. It is important that the soil should be in a moderately dry condition, and soil that is adhesive or of a sticky nature is not fit for immediate use. This soil question at the start is of so important a nature that, if the amateur has none of the kind recommended at his command, he will do well to get a sack mixed ready for use from a neighbouring nurseryman, who should be informed for what purpose the soil is required.

Preparing the Plants.—There is much need for getting these ready for the potting; and the plants that are either too wet or too dry are not ready. The Carnation plant requires to be potted rather firmly, and a plant that is much saturated by water cannot be made sufficiently firm. On the other hand, there is a danger that the over-dry plant will not receive water properly if potted in that state; hence the need for the happy medium, which is best attained by affording water to such as need it the day before the potting is intended to be done.

The Danger of Delays.—The Perpetual-flowering Carnation is a soft-wooded plant, and as such it is of the utmost importance, culturally, that there be no unnecessary delays in the early stages of growth. Should any such ensue and the young plants be kept for weeks in small pots when they should be growing away strongly in those of 5 inches across, a starved or hide-bound condition of the stem will be set up that cannot subsequently be rectified. The plants, therefore, must be kept growing in a moderately moist though freely ventilated greenhouse kept at about 50°. Insect pests, all of which multiply rapidly at this season, must be kept in check by the ordinary methods of fumigation; indeed, it is best to fumigate lightly periodically to keep them at bay rather than otherwise.

As Bedding Plants.—It may be well to remind my readers that these Perpetual-flowering Carnations are excellent as bedding plants, and that they flower well into the late autumn months. Those, therefore, who feel so disposed should invest in a double set, one for the garden and the other for the greenhouse. Any Carnation specialist advertising in The Garden will supply the best sorts for each purpose. E. H. Jenkins.

LEGAL POINTS.

Landlord and tenant: Notice to quit (*A. E. W.*)—A general letting of premises at a yearly rent without further terms creates a tenancy from year to year. It is immaterial whether the rent is payable yearly, half-yearly, quarterly or even monthly, provided the rent is a yearly one. On ordinary holdings such tenancy is terminable by half a year's notice. When the tenancy commences on a day other than the four usual quarter days, the notice must be a full half-year's notice expiring at the end of the current year; but if the tenancy is made to commence on one of the four regular quarter days, a customary half-year's notice is sufficient, which may be a few days short of half a year. Thus, if the tenancy commenced on Lady Day, the notice could be given at any time before Michaelmas Day; but if it commenced on March 26, the notice could not be given after September 26. In the case of an agricultural holding it is provided that, where a half-year's notice is "by law" necessary and sufficient for the determination of a tenancy of a holding from year to year, a year's notice shall be necessary. This provision only applies to agricultural holdings and to cases where a half-year's notice is required by law, and has been held to be inapplicable where by express contract a six months' notice is required. "A. E. W.'s" holding does not appear to be agricultural, so he cannot demand a year's notice.

Ownership of a ditch (*H. B.*).—When two fields are separated by an artificial hedge and ditch, it is presumed, apart from evidence to the contrary, that the hedge and ditch belong to the person whose property is behind the hedge, and not to the owner of the field in which the ditch is apparently situate. This presumption is based on the theory that the person who wished to fence off his property dug up to the extreme limit of his own land without encroaching on his neighbour's property, and that he banked up the excavated soil on his own land and proceeded to plant the hedge or erect the fence on the bank. The soil or land at the bottom of the ditch is still vested, therefore, in the person on whose land the hedge or bank is. There seems nothing to prevent the querist putting up another fence in the ground at the bottom of the ditch, provided he does not interfere with his neighbour's right to drain into the ditch, presuming that his neighbour is vested with such right. Barrister.

NEW PLANTS.

Odontoglossum Rossianiæ rubens.—A very pretty flower the markings of which are most regular and beautiful. The blossoms are of medium size, each segment being sharply pointed. The ground colour is pale lilac, the dots and bars overlying this being dull crimson. A decided bar of this colour is placed longitudinally at the base of each segment, and this gives the blossoms a somewhat starlike appearance. Shown by M. Henri Graire, Amiens, France. Award of merit.

Sobralia Cliftonæ.—This is a new species from Ecuador, and, judging by the specimen seen, it should prove a valuable addition. The plant had only one flower, but this was large and very pure white except for dull purple markings in the throat. The plant shown was nearly 2 feet high and had five shoots. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Odontoglossum arnoldianum.—A good-sized, dark-flowered variety of excellent shape, reminding one somewhat in this respect of a form of O. crispum. The colour may be regarded as dull brownish crimson, each segment having a very faint margin of white. The labellum is white and crimson spotted, and affords a slight relief to the duller portions of the flower. Shown by J. Gurney Fowler, Esq., The Glebelands, South Woodford. Award of merit.

Odontoglossum crispum St. Fuscien.—This is another beautiful addition to the large number of varieties of a well-known Orchid. In this instance the variety is a very charming one indeed, the white frilled sepals and petals each having a large, irregular blood red blotch placed near its centre. The labellum is similar in colour and markings, but the cushion is of rich canary yellow. Shown by M. H. Graire, Amiens, France. Award of merit.

Odontoglossum regale rosefieldiense.—A large, much-crimped flower of medium size, and in shape similar to O. crispum. The ground colour is pale canary yellow, and this is freely blotched with dull crimson. The labellum is even paler yellow or cream colour, and regularly marked. Shown by de B. Crawshay, Esq., Rosefield, Sevenoaks. Award of merit.

Miltonia Phalænopsis McBean's variety.—The plant shown was a very weak-looking specimen and had one flower only, another flower of the type being shown for comparison. In the variety the purple streaks on the large labellum have become consolidated into a large blotch, and the colour, too, is much richer and deeper. Shown by Messrs. J. and A. A. McBean, Cooksbridge, Sussex. Award of merit.

Hippeastrum Gereant.—A lovely self-coloured variety of crimson scarlet hue, the flowers of fine substance and form.

Hippeastrum Cardinal Wolsey.—The predon nating colour is deep cerise, an almost no shade in these plants, and of a most attracti and decorative character.

Hippeastrum Calypso.—White, suffused a reticulated with pink and crimson. A ve handsome variety. Each of these received award of merit, the exhibitor being Lieutena Colonel Holford, Westonbirt, Tetbury, Gloucest (gardener, Mr. A. Chapman).

Primula ciliata General Stewart.—A reddi crimson-flowered variety of merit that will ma an excellent plant for the rock garden. It probably one of a series of crosses made ma years ago between P. ciliata and P. viscosa, t whole of which are admirable garden plants, bei free in flowering and quite hardy. Shown Mr. Cranfield, Enfield. Award of merit.

Narcissus Poeticus Matthew Arnold.—A novel in the Poeticus section of decided merit, t flowers not merely possessing a perfectly circul outline, but rare substance in the well ov lapping perianth segments. The eye or crown of intense colouring. From Messrs. Cartwrig and Goodwin, Kidderminster. Award of mer

Alpine Auricula Roxburgh.—A delightf variety in every way. The truss is large, a composed of perfectly formed, blackish purp blossoms. The plant appears to be exceptional vigorous.

Show Auricula Warley.—A very fine lila tinged rose, self variety, the flowers of whi measure 1¼ inches in diameter. These are splendid shape.

Show Auricula Victor.—A very fine and larg flowered maroon self, the blossoms possessi perfect form and the plant great vigour. The three Auriculas were shown by Mr. Jam Douglas, Edenside, Great Bookham, Surrey, a each received an award of merit.

All the foregoing plants were shown befo the Royal Horticultural Society on the 19th inst when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intend to make* The Garden *helpful to all readers who desi assistance, no matter what the branch of gardening ma be, and with that object will make a special feature of th "Answers to Correspondents" column. All communica tions should be clearly and concisely written on one sid of the paper only, and addressed to the* Editor of The Garden, *20, Tavistock Street, Covent Garden, London W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required i addition to any designation he may desire to be used in th paper. When more than one query is sent, each shou be on a separate piece of paper.*

FLOWER GARDEN.

Daffodils and Arabis (*Scotia*).—Th Daffodils have, doubtless, been too long in th one position and have become crowded an exhausted the soil. Provided the foliage i healthy and not much browned at th extremities, you might encourage a mor vigorous growth by watering with liquid manure There is no need to throw them away; bu when growth is completed, say, early in July you might lift the bulbs, dry them off for month or six weeks, and finally replant them i well-dug, freely enriched soil. As the bulb have become weak, they would not flower nex year unless good growth is made this season The past year was bad for the maturing of th bulbs, and many complaints are reaching us o large numbers failing to flower. In the replant ing the bulbs should be given plenty of room The Arabis looks very much starved, and yo had better renew the edging by making fres

cuttings, working in some lime rubble about the soil. The name of the dark red flower is Pyrus japonica, and if the position is not too dry at the root, we should feel inclined to take out a trench 2½ feet or 3 feet from the stem and work in some well-decayed manure with the soil. By doing this now and pruning the long shoots back to spurs about 3 inches long, a better growth should ensue. Let the trench be dug 2 feet deep, adding light soil and manure and old mortar or lime rubble if the soil be of a heavy nature. Excessive manuring must be avoided, as that would tend to the promotion and production of gross wood.

Plants for tubs (*Cynon, Aberdare*).—For providing a free and continuous display of flowers we know of nothing to equal the Ivy-leaved Pelargoniums, and as these are obtainable in distinct shades of colour, you might indulge in them in preference to other plants of a less suitable nature. Each of your tubs would accommodate three plants, and these if quite firmly planted would do you good service. You could not place them in the open yet; but if you have a greenhouse or frame you could be getting them ready. The best varieties would be Mme. Crousse, Souvenir de Charles Turner and Beauty of Castle Hill. By placing a 4-feet long stick to each plant and drawing the three together at the top, an informal pyramid will presently be produced. Allow the plants to grow unchecked from the start. For the boxes, try planting them with Sweet Peas of distinct sorts, a dozen seedlings in each; or even half that number would afford a good sprinkling of flowers if the plants were well attended to.

TREES AND SHRUBS.

Pruning Almond trees (*Mrs. Mirehouse*).—Unless the centres of your Almond trees are very thick with small branches, no pruning will be necessary. In the event of their containing a lot of weak inside branches, you may thin those out, cutting them away right to the trunk at once. The reason your trees have bloomed but sparingly is on account of their youth; as they get a little older they will probably blossom quite freely. Severe pruning would be likely to retard rather than hasten flowering.

Treatment of Romneya (*J. A.*).—It would greatly have assisted matters had you told us the position the plant is in and in what soil it is growing. Excess of dryness or wetness at the root may cause the buds to drop, though the position should be one of some warmth in conjunction with a free drainage. It is only rarely that the plants perfect the whole of the flower-buds formed, though in your case the loss is out of all proportion. The plant is apparently in good health by the growth it makes each year, and possibly the small caterpillar of which you speak is the cause of all the trouble. Try syringing with a weak solution of quassia and soft soap before the flower-buds make their appearance. It is possible, too, that the caterpillars may infest the leaves of the plant as well.

Dwarfing trees (*Kingstown*).—We have heard the story about dwarfing trees by growing them in the peel of an Orange, but attach no importance to it. A friend, however, tried the experiment, and found in practice that the Orange peel quickly decayed and that it in no way exercised a dwarfing influence on the plant therein. The Japanese are, as is well known, experts in the dwarfing of trees and shrubs, and no better plan can be followed than that resorted to by them. In order to dwarf a tree or shrub it is taken in hand in its early stages; that is, it is raised from seed in the ordinary way, then the tap root is cut off and the plant is potted in poor, stony soil and usually in a shallow receptacle. Water is given but sparingly, the main point being to keep the young tree in such a condition that it gradually falls into a more or less moribund state, having just sufficient vigour to push out new leaves at the proper season and yet make comparatively little growth. Should a shoot stronger than usual be pushed forth, it is shortened back. By continuing this treatment, the constitution of the plant becomes so debilitated that it falls into a premature old age, and at the same time, as with old trees in general, it retains enough vitality to be fairly effective. This dwarfing of trees has been practised by the Japanese for centuries, and plants so treated are admirably fitted for their quaint miniature gardens; but according to Western ideas they are curiosities and nothing more. They are, at least by the average horticulturist, looked upon as examples of the tenacity of life under adverse conditions, and for beauty not to be compared with a naturally grown specimen.

THE GREENHOUSE.

Pruning Hydrangea hortensis (*G. F.*).—All the pruning needed by Hydrangeas is to cut away any weak and exhausted or badly placed shoots in the spring before they start into growth. Very little pruning in required. The question of producing blue Hydrangeas is still more or less a puzzle to horticulturists, for sometimes there is no difficulty in the matter, while at others the plants will not change colour. It will be a decided help if you water the plants occasionally with a solution of sulphate of iron, about a teaspoonful to a gallon of water. Alum water is also highly recommended by some in order to turn the flowers blue. The alum should be given at a strength of an ounce to each gallon of water. To prepare the alum it must be crushed and dissolved in a little hot water. The plants should be watered with this at intervals of ten days to a fortnight, but it must be discontinued when the flowers begin to open. If the roots are very dry, the plants must be at first watered with clean water, as the alum would, under those conditions, prove injurious.

Information about Carnations (*Cars, R. S.*). In the case of Carnations to which an excess of stimulants has been applied, the petals of some varieties in particular are very apt to stick together, as yours have done, instead of opening properly. Another common cause is insufficient ventilation, as these Carnations delight in a free circulation of air; indeed, a light buoyant atmosphere is one of the greatest essentials to the successful culture of these plants. The appearance of the buds would suggest that the cause of your trouble is a combination of the two reasons given above. This would lead to a soft growth, and consequently, with the increase in the power of the sun, the outer petals will quickly become injured, more particularly if there is an excess of atmospheric moisture, which we are inclined to think has happened in your case.

MESSRS. PULHAM AND SONS' WONDERFUL EXHIBIT—WATERFALLS AND ROCK GARDEN—AT THE IDEAL HOME EXHIBITION, OLYMPIA. (*See page 208, last week.*)

FRUIT GARDEN.

Propagating the Quince (*Viola*).—The Quince is chiefly propagated by layers placed in soil in the autumn. If there are Quince suckers growing through the ground from the roots of your Pear trees, as they sometimes do, you should clear away the soil until you come to where they spring from the root; then cut them away with a sharp knife without injuring the root of the tree, taking care that a few roots are attached to the young ones taken away. They should be planted in the garden in a shady spot and be grown on until strong enough for stock. Gas-lime should be placed on the land in the autumn and used sparingly if the soil is to be cropped the following spring.

Young fruit trees recently planted, and other questions (*M. C.*).—It is not too late to prune now, and this should be done without delay. The leading shoot (of last year's growth) at the extreme point of each main branch should be cut back by one-third its length (always cut to a bud pointing outwards, not inwards). The side branches (also of last year's growth) growing out of the side of the main branches should be cut back to within three buds of their base, in order to encourage the formation of fruit-spurs close to the main branches. Should your trees not be sufficiently furnished with main branches, then as many of the side shoots of last year's growth as may be necessary to make this deficiency good must be left, cutting these back only by one-third their length as advised for the leading shoots of the main branches. If you can place a layer of decayed manure, say, 3 inches deep on the top of the ground over the roots of the trees as far as you think they extend, it will help the trees greatly during the summer. Nothing more need be done except to take care that the land is kept clean by frequent hoeings. Red Currant and Gooseberry bushes should be pruned as follows: Slightly prune back the main shoot of last year's growth growing at the extreme point of each main branch, say, by 4 inches. All the side shoots growing out of the main branches should be pruned back to within three or four buds of their base, except where a branch may be wanted to fill a gap in the bush, when it should only be slightly shortened as recommended in the case of the leading shoots. Black Currant bushes need no pruning the first year after planting. 2. It would be too late to crop the land with anything to advantage after the late Potatoes were taken up. The half-acre under early Potatoes should be cleared and ready for planting, say, early in August, and any of the following crops could be successfully grown and would prove remunerative: Late Broccoli, to come in at this time of year, sow the middle of June. The Colewort, or Maiden Cabbage as it is commonly called, is a valuable crop; they should be sown on June 10, and planted as early in August as possible at 1 foot apart. They should be ready to cut before Christmas and through January. Turnips sown early in August form a valuable winter crop. Spring Cabbage sown on August 12 and planted at the end of September would be a valuable crop; also Lettuce, both Cos and Cabbage varieties, would make good, saleable plants before winter. Spring Onions sown on August 10 and planted in October are a useful spring crop. Leeks sown in June would come in useful for planting in August, and would give a good return in spring and early summer. August is a good time for planting the Strawberry. This is a valuable crop, and your land, from your description, we think is suitable for its successful growth. 3. We think that Narcissi (Daffodils) such as Emperor and Empress, Sir Watkin, Horsfieldii and such-like popular varieties, which give magnificent flowers with little trouble or expense in their growth, would pay you better than the crop you suggest. These flowers when cut fresh always find a ready sale. The bulbs increase yearly in numbers, and add to their value in this way as well. They should be planted at the end of August or early in September. The bulbs are cheap. May Tulips are another crop which we think you would find profitable to grow for cut flowers. These flowers are most beautiful,

very popular and sell well. The bulbs last many years. They should be planted in September. These bulbs would do less harm to the fruit trees than any crop we know, but, of course, they must not be planted too near the trees.

ROSE GARDEN.

Pruning neglected Rose (*Viola*).—The best way to go about pruning your old neglected Gloire de Dijon Rose against the house is, first, to thin out the weakly shoots, cutting them well back, afterwards selecting the best young shoots of last year's growth to fasten to the wall, shortening the tip ends of the shoots by a quarter of their length. There should be about 4 inches between the young branches when fastened to the wall. Should there still be some branches to spare, spur them back to within three buds of their base, and they will give you some good flowers and not take up too much room. You must leave enough shoots of last year's growth on the tree, for it is from these only that the flowers will be produced this summer.

Some hardy perpetual-flowering climbing Roses (*L.*).—You cannot do better than obtain such sorts as Aimée Vibert, Longworth Rambler, Trier, Cheshunt Hybrid, Gloire de Dijon, Reine Marie Henriette, Pink Rover, François Crousse, Mme. Alfred Carrière, Climbing Caroline Testout, Climbing Victor Verdier, Mrs. Paul, Mme. Isaac Pereire, Zepherin Drouhin, common Monthly Rose, Ards Rover, Climbing Frau Karl Druschki, Climbing Captain Christy, Grüss an Teplitz and La France de '89.

Cutting Roses with long stems (*Scotia*).—You will certainly study the welfare of your autumn-planted bushes if you refrain from cutting the blooms with long stems. There would be no harm done in cutting them as button-holes with just a short stalk: but by depriving a plant when in full growth, even a long-established one, of a long piece of growth and foliage causes a considerable check to that plant. Where Roses are required to furnish these long-stemmed blooms, they should be planted in the reserve garden and replaced with young plants when necessary.

KITCHEN GARDEN.

Custard Marrows (*Northumbria*).—As the true Custard Marrow is one of the tenderest of this section of the Marrow family, it is needful, especially in such a cold Northern district as yours, to plant in the warmest positions in the garden. No doubt last season was too cold for your plants, as even quite in the South Marrows did not do well. You did quite wrong in planting on the top of a heap of manure, as the growth that results would be coarse, sappy and fruitless. If you have at hand a few glazed hand-lights or French cloches, and after putting out, 3 feet apart each way, the plants on slightly raised mounds in pairs from pots, could put one of these glass coverings over each pair, and when growth became strong place them upon bricks for a time, that would give the plants a good start. Use only a small quantity of manure on each mound, and have it well mixed with the soil. As the variety you name is a trailer, it is wise to lay down some tree branches for the bines to run over, as they do not like cold, wet ground. Be sure to give the plants the warmest, sunniest place you can in your garden.

Cabbages going wrong (*D. O. D.*).—The Cabbages appear to have been manured too freely with nitrogenous manure in the autumn, and the result has been that they became succulent and badly attacked by frost.

MISCELLANEOUS.

Books on Orchids (*Amateur*).—Good books on Orchids likely to suit your purpose are "Orchids, The Book of," by W. H. White, Orchid-grower to Sir Trevor Lawrence, price 2s. 9d.; or "Orchids: Their Culture and Management," by W. Watson, curator, Royal Botanic Gardens, Kew, price 25s. 6d. Both may be obtained from the Publisher, 41, Wellington Street, Strand, W.C. Of Orchid-growers especial mention may be made of Messrs. Sander, St. Albans, and Messrs. Charlesworth, Hayward's Heath, Sussex, both of whom grow large collections of Orchids. Messrs. Mansell and Hatcher, Rawdon, Yorkshire, devote considerable attention to the requirements of amateurs, and, under the title of "Orchids: Information for Amateurs," they issue gratis a booklet which you would find of very great service. A few cheap, easily grown Orchids are Cattleya labiata, C. Mossiæ, C. Trianæ, Cœlogyne cristata, Cymbidium lowianum, Cypripedium Charlesworthii, C. insigne, C. lathamianum, C. leeanum, C. spicerianum, Dendrobium nobile, D. wardianum, Lælia anceps, Lycaste Skinnerii, Odontoglossum crispum, O. Pescatorei, O. triumphans and Sophronitis grandiflora.

Grubs in lawn (*Miss D. H. W.*).—There are two kinds of grub present—one, the larvæ of the St. Mark's fly, in the greatest abundance, the other that of the crane-fly or daddy-long-legs. Rooks, starlings and some other birds devour these pests in numbers. They are in no way connected with ants. You might apply sulphate of ammonia at the rate of 1½cwt. to 2cwt. to the acre, or kainit at the rate of 3cwt. to 4cwt. to the acre. This would destroy some of the grubs, and also help the grass to grow away from the attack. Rolling with a heavy roller will be useful.

Names of plants.—*J. Coles.*—Rubus speciosus.—*V. A. M.*—Probably Origanum species; send in flower.—*H. P. Bridge.*—Narcissus moschatus.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

AT the fortnightly meeting held at Vincent Square on the 19th inst. there was again a very fine exhibition of flowers and one or two small displays of vegetables. Narcissi were the most freely shown, and some very fine exhibits of these were to be seen. The improvements which have been made in these flowers during the last decade are really wonderful. Visitors were very numerous during the afternoon.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. A. H. Pearson, G. Reynolds, W. Bates, G. Woodward, Alex. Dean, Edwin Beckett, J. Willard, W. J. Jefferies, A. R. Allan, H. Markham, H. Parr, J. Vert, G. Hobday, W. H. Divers, H. Hooper, J. Jaques, G. Wythes, C. Foster, Owen Thomas, J. Davis, J. Cheal and J. Harrison.

Messrs. J. Veitch and Sons, Limited, Chelsea, put up a most attractive and praiseworthy collection of salads and vegetables, these representing very high-class culture. Lettuces were shown in about a dozen varieties, and about two dozen distinct sorts of Radishes were included. Then there were Cabbages, Spinach, Asparagus, Cucumbers, Carrots, Turnips, French Beans and Broccoli, the whole forming a splendid exhibit. Lettuces All the Year Round, Reine de Mai, Golden Queen and Passion Blonde; Cabbages Early Dwarf York and Early Parisian; and Broccoli Blanc d'Angers were some noticeable varieties. Silver Knightian medal.

Mrs. Bischoffsheim, The Warren House, Stanmore, exhibited a tasteful little collection of Potatoes, two varieties being represented. These were May Queen and Sharpe's Victor that had been grown in boxes, and others of the same sorts which had been grown in pots. In both cases those from boxes were the largest tubers, and apparently this is the best way to grow early Potatoes. Lettuce Early Paris Cutting, which had been grown in a cold frame, was also shown in splendid condition here. Cultural commendation.

Mr. T. G. Dawes, Syderstone Nurseries, Norfolk, put up a small but very good exhibit of Rhubarb Dawes' Challenge, pulled stalks and roots being shown. We have previously commented on the good quality and attractive appearance of this large and prolific variety.

Sir Mark Collet, St. Clere, Kemsing, Sevenoaks (gardener, Mr. Nicholls), staged a nice collection of Apples and Pears, these all being shown in an excellent state of preservation. Among the Apples were Hambling's Seedling, Annie Elizabeth, Newton Wonder, Bismarck, Betty Geeson, Lord Derby, Barnack Beauty, Bramley's Seedling, Lane's Prince Albert and Golden Reinette. Pears were represented by Doyenné d'Alençon, Bellissime d'Hiver and Directeur Alphand.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshay, W. Boxall, H. Graire, R. Thwaites, Stuart H. Low, F. Sander, A. A. McBean, W. P. Bound, J. Charlesworth, J. Cypher, H. G. Alexander, W. H. Hatcher, W. H. White, H. A. Tracey, H. Ballantine, Gurney Wilson, J. Wilson Potter, W. Bolton, Harry J. Veitch, C. W. Little, Walter Cobb, F. J. Hanbury and Arthur Dye.

Messrs. Sander and Son, St. Albans, had a small but rather crowded group of well-flowered plants, these comprising a number that were of more than usual interest. Burlingtonia venusta (with yellow green blossoms), a species of Stanhopea (with large, curiously shaped ivory-coloured flowers, freely dotted with carmine), Chysis bractescens, Odontioda Cooksoniæ and a fine specimen of Odontoglossum crispum Leonard Perfect were a few that called for special mention. Silver Flora medal.

Messrs. Charlesworth and Co., Hayward's Heath, were maintaining their high reputation with an admirable though rather cramped display of high-class plants. Among other very interesting plants we noticed Odontoglossums Cervantesii, O. Eleanor, Lælia acuminata, a large specimen of Masdevallia houtteana, Lælio-Cattleya Doris and L.-C. Elinor, the flowers of the latter being a particularly rich shade of apricot. Silver Flora medal.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, had a large and beautiful bank of well-flowered plants in the annexe, this comprising a number of rare specimens. Among others we noticed Odontioda chelseaense, O. Goodsonæ, O. keighleyense, O. sceptrum masreeliana, some very fine Cattleyas, especially the forms of C. Mendelii, Cirrhopetalum picturatum Cliftonii, a fine hybrid Odontoglossum and a beautiful form of O. triumphans. The whole of the plants in this group were of excellent quality, and reflected great credit on those responsible for their culture. Silver-gilt Flora medal.

Messrs. Armstrong and Brown, Tunbridge Wells, had a small but interesting group of choice plants, among which we noticed Phaius Norman, Cypripedium chamberlainianum Orchidhurst variety, C. Helen II. Armstrongæ, a good form of Lycaste Skinneri and Masdevallia Chestertonii.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. W. A. Bilney, C. T. Druery, W. G. Baker, J. Walker, W. Cranfield, J. Green, R. C. Notcutt, W. J. Bean, G. Reuthe, J. Douglas, W. Howe, G. Gordon, J. F. McLeod, A. Kingsmill, C. Blick, E. Mawley, J. Jennings, C. Dixon, H. J. Cutbush, E. T. Cook, N. F. Barnes, C. E. Shea, J. T. Bennett-Poë, W. P. Thomson, E. H. Jenkins, J. Hudson, T. W. Turner, C. R. Fielder and A. E. Bowles.

One of the most delightful exhibits displayed on this occasion was the splendid collection of show and alpine Auriculas from Mr. James Douglas, Great Bookham, and which filled one of the full-length tables in the hall. The plants were generally well grown, and displayed in no uncertain manner the masterly work of this well-known veteran florist. If we say that we have seen these things better from the same source, the remark is but relative so far as the individual merits of the examples shown are concerned, and is in no way intended in a derogatory sense, and may rather concern the season or the demand made upon the stock of the grower or other cause of which we have no information. From out of the large collection shown we select Goldfinch, Daffodil, May Day and Moonstone, all yellow-flowered varieties of the fancy class. White Admiration, Mrs. Markham, Teviot Dale, Ziska, Blue Bell and Argus were the gems of the alpine class. Of green-edged varieties Prince Charming and Mrs. Henwood were excellent; while of grey-edged varieties George Lightbody and Marmion were the best. White-edged varieties included Acme and Conservative; while Mikado and Favourite were good representatives of the self class. Some 300 plants of these old-time favourites were staged. Gold medal.

Messrs. J. Peed and Sons, West Norwood, exhibited a bank of Caladiums in many showy and good varieties, the plants evidencing excellent cultivation. Silver Banksian medal.

Messrs. R. W. Wallace and Co., Colchester, had a delightful rock garden exhibit, on which were arranged masses of alpine Primulas, Androsaces, Ranunculus, Lithospermum, apennine and other Anemones, Daphne Cneorum, Arnebia echioides, Viola gracilis and other interesting and beautiful plants. Silver Banksian medal.

Mr. W. H. Page, Hampton, displayed in his usual style some splendid groups of Perpetual-flowering Carnations, of which White Perfection, Rose Pink Enchantress, Enchantress and Britannia were admirable examples. Silver Flora medal.

Mr. G. Reuthe, Keston, Kent, brought one of his highly interesting collections of alpines and Rhododendrons, the former including the choicest and rarest of the Saxifrages, alpine Primulas, Anemones, Auriculas of the alpine class, Schizocodon soldanelloides, Shortias and other beautiful or rare plants.

Alpine plants in variety, with shrubby Veronicas, Amygdalus nanus and other plants of interest or merit came from the Hardy Plant Nursery, Guildford.

Mr. L. R. Russell, Richmond, had a fascinating exhibit of forced shrubs, the yellow-flowered varieties of Azalea mollis, with white and mauve Wistarias, Lonicera halleana (with scarlet tubular flowers), Clematises, Weigelas, Choisya ternata, Lilacs and other good things, the whole bordered by Funkias making a fine display. Silver Banksian medal.

Bakers', Wolverhampton, brought masses of Aubrietias, Trilliums, Gentians, Saxifrages and Primulas in great variety.

A superb and extensive exhibit of forced Azaleas, purple-leaved Acers, Lilacs, Magnolias, Laburnums and Pyrus Malus floribunda was arranged in a most artistic manner by Messrs. R. and G. Cuthbert, Southgate, N. Silver-gilt Flora medal.

Mrs. Bischoffsheim, Stanmore (gardener, Mr. J. G. Scott), brought a very fine group of Pelargonium Clorinda, the plants chiefly of the half-standard type, splendidly grown and flowered. Silver Banksian medal.

Messrs. T. S. Ware, Limited, Feltham, arranged a rockery bank with showy and good alpines, such as Primula rosea, Androsace Chumbyi, Aubrietias in variety, crimson-flowered Saxifrages of the mossy section, and other good and showy plants. Silver Banksian medal.

Messrs. Dobbie and Co., Rothesay and Edinburgh, brought some fine exhibition Pansies and Violas, the latter including Kitty Bell, pale blue; Kingcup, golden; Maggie Mott, a fine blue and a good bedder; Louie Granger, rosy mauve; Blue Cloud and Purity among many good sorts.

Mr. George Prince, Longworth, Berks, brought some lovely Roses, of which White Maman Cochet, Florence Pemberton, flesh colour; Mrs. Edward Mawley, very fine; Countess of Derby, flesh pink; Rubin, a rosy climber; Dean Hole (Hybrid Tea); the new Tea Rose Molly Sharman Crawford, and White Killarney, which promises to become a most popular variety, were included. Silver Banksian medal.

Messrs. Storrie and Storrie, Glencarse, N.B., displayed their well-known strains of white and yellow Polyanthuses, which are characterised by rich or pure colours, large size of blossom and great vigour of plant. Yellow and blue flowered Auriculas of the border type of much excellence were also shown, as were also Polyanthuses with silver lacing or bordering. Silver Flora medal.

Messrs. G. and A. Clark, Limited, Dover, had a rockery bank arrangement, on which many good hardy plants were displayed.

THE GARDEN.

No. 2007.—Vol. LXXIV. May 7, 1910.

CONTENTS.

E Aspect of the Daffodil 221
OTES OF THE WEEK
Forthcoming events 222
RRESPONDENCE
Primula obconica .. 223
Alpine flowers under glass 223
ARDENING OF THE WEEK
For the South and South Midlands .. 224
For the North and North Midlands .. 224
orkers among the flowers 224
OWER GARDEN
Daffodil notes 225
A new Narcissus—Apricot Queen .. 226
Sweet Pea chat .. 226
Corydalis solida .. 226
Rock garden at Crowborough.. 227
LOURED PLATE
Three popular Sweet Peas 227
EENHOUSE
An amateur's Orchid house 227
RN GARDEN
The Filmy Ferns .. 228
TREES AND SHRUBS
A beautiful flowering Cherry 229
Berberis Darwinii .. 229
Skimmia japonica .. 229
ROSE GARDEN
Moss Roses on walls 229
A giant-flowered wichuraiana Rose 229
A brilliant-coloured pillar Rose 229
GARDENING FOR BEGINNERS
Garden work week by week.. 230
How to increase the double-flowered Rock-Cress 230
Earthing-up Potatoes 230
Filling flower-beds .. 231
Perry's variety of the Canadian Phlox .. 231
THE TOWN GARDEN .. 231
KITCHEN GARDEN
Cauliflowers 232
Editor's Table 232
ANSWERS TO CORRESPONDENTS
Flower garden 233
Trees and shrubs .. 233
Greenhouse 233
Rose garden 233
SOCIETIES 234

ILLUSTRATIONS.

r. Amos Perry 225
he new Narcissus Apricot Queen 226
hree popular Sweet Peas .. .. Coloured plate
frond of the queen of Filmy Ferns: Todea superba 227
he of the smallest Filmy Ferns 228
n elegant Filmy Fern 228
rock garden at Crowborough 229
creasing the double-flowered Rock-Cress 230, 231
erry's variety of the Canadian Phlox 231

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be kindly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be dealt with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

ONE ASPECT OF THE DAFFODIL.

THE Daffodils are making their usual beautiful show in Messrs. Barr and Sons' nursery at Long Ditton, and one never visits these acres without bringing back some fresh conception of the fairest flower of spring. Not only are there many novelties that will in the near future attain popularity, but there in almost bewildering varieties are those we have cherished for many years for their beauty both of leaf and of flower. If one observes carefully hundreds of different forms spread out—a fluttering cloud of white and yellow—two phases will be apparent, the colouring of the foliage and the length of flower-stems. In one case the colour is blue green, in another greyish, and in another silvery; and the stem varies remarkably, the flowers sometimes almost nestling among the leaves.

One lesson to be gathered from these points is the value in any scheme of indoor decoration of having the foliage of the same kind as the flower, and when grouping the bulbs in garden or pleasure ground, plant those having flowers that are thrown well up. We were delighted with the comparatively new race, the result of crossing Narcissus poeticus with the finest forms of Polyanthus or Bunch-flowered Narcissi, the former being the seed-bearing parent. This race is called

"Narcissus Poetaz."

The following is Messrs. Barr's description: "The plants are tall and vigorous growers, bearing heads of large, well-formed flowers, deliciously fragrant; they are much finer than the common Polyanthus Narcissi, and have the advantage of being quite hardy. In pots or the flower border they are very decorative, while the flowers are highly prized for cutting." It is to this group we would draw particular attention, and none is better adapted for grouping in beds, one kind in each, than the "Poetaz." All the hybrids are flowering magnificently at Long Ditton, the most important being those named. Taking them in alphabetical order, Aspasia heads the list, this bearing four or five large flowers on a stem that is held well above the leaves, producing the effect of a solid mass. There is strong evidence of the Polyanthus Narcissus in this race, and without its somewhat heavy bunchiness; the height is 21 inches, and the colour white, against a rich golden yellow cup. Elvira is queen of the "Poetaz." It is one of the most recent introductions, and was given an award of merit by the Royal Horticultural Society in 1904. The beds of it in Messrs. Barr's nursery are worth a journey to see, the graceful stems, fully 2 feet long, supporting several large, massive flowers, pure white except the cup, which is bright yellow edged with orange. Ideal is making a great show, and one can never mistake this form with its showy, white, rich orange-centred flowers. In Irene there is a change from white to soft primrose, and the golden cup is fluted. Jaune à Merveille is expensive as yet; but when it comes within the means of those with a moderate purse, we shall see much of the flowers with their primrose perianth and yellow orange lined cup. Klondyke (yellow and gold) and Triumph (snow white, with yellow centre) complete the selection. One may plant the whole collection without introducing monotonous effect into the garden, and if Daffodil-lovers are without one or more of the "Poetaz," our advice is, purchase some in autumn and plant in groups, one kind in each.

Other Daffodils.

As the "Daffodil Notes" which have been published during the season from the Rev. Joseph Jacob explain, interest in this beautiful family deepens as fresh departures from existing types are developed. As these, of course, are expensive, we must rely upon the forms that are more familiar and reasonable in price. At Long Ditton many old favourites are in full beauty, and of the trumpet kinds Emperor, Empress, Horsfieldii, Johnstonii Queen of Spain and Victoria were conspicuous; and of the Star Narcissi, which include two great divisions—the incomparabilis and Leedsii—there was a great gathering. One of the favourites of the writer is Stella, which is early and constant. The sweet-scented flowers appear well above the leaves, and their colouring is refined without weakness. For many years it has been planted in an exposed sunny border, and although the bulbs have not been lifted, the foliage and flowers are as strong and free as after the first year. Stella superba is, as the name suggests, an improved form, and others that are sufficiently inexpensive to make planting in quantities possible are Sir Watkin, Autocrat, Beauty, Cynosure, Frank Miles, Queen Bess and Gwyther. Belonging to the incomparabilis are the rarer Gloria Mundi, Lucifer, Lulworth and Red Star.

Of the Leedsii, which Messrs. Barr describe as the "Silver White Fragrant Star, or Eucharis-flowered Narcissi," an interesting series is in flower. We think this is one of the most charming of the family; there is exquisite beauty in the colouring, and whether in the border, in the reserve garden for cutting, or in pots, the Leedsii Narcissi are always acceptable. There is the delightful type—Leedsii itself—not entirely eclipsed even with the army of new forms that have appeared of recent years. A favourite of

the writer is Duchess of Westminster, which has segments of purest white and a canary-coloured cup, delicately scented. It is one of the most welcome of all for naturalising in grass, the flowers having a peculiarly beautiful effect in twilight. Amabilis, Duchess of Brabant, Beatrice, Agnes Harvey, Gem, Katherine Spurrell, Madge Matthew, Mrs. Langtry, and Una, which was exceptionally fine with Messrs. Barr, were some of those we noticed in this vast collection. A visit to Long Ditton in Daffodil and Tulip time is always well repaid, to see not only familiar forms, but those of great rarity.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 17.—Royal Horticultural Society's Exhibition of Flowers, Fruit, &c., 1 to 6 p.m. Lecture at three o'clock, by the Rev. J. Jacob, on "The Tulip — Problems and History." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

May 19. — Perpetual Flowering Carnation Society's Show at the Royal Horticultural Hall, Westminster. Royal Gardeners' Orphan Fund Annual Dinner at the Hotel Cecil, Strand, London, W.C.

National Chrysanthemum Society.—We are pleased to see from the schedule just issued for the present year that this society is progressing satisfactorily. Mr. R. A. Witty, the secretary, in the report mentions that the close of the financial year finds the society in a much more satisfactory position than was anticipated earlier in the year. For the first time for some years the balance-sheet discloses the fact that the whole of the ordinary liabilities of the society were paid before the accounts were ruled off. The position is therefore summarised as: Assets, £104 1s. 8d.; and liabilities, none. Exhibitions will be held at the Crystal Palace on October 5 and 6 and November 2, 3 and 4 respectively. A conference will be held at Essex Hall on December 5. The annual meeting will take place on July 25, when a visit will be paid to Tring Park by permission of Lord Rothschild.

Royal National Tulip Society.—The seventeenth annual southern exhibition of the above society will be held in the Horticultural Hall, Vincent Square, Westminster, on Tuesday, May 17. We have just received a copy of the schedule, and also the annual report for 1909. The financial statement shows a balance in hand of £4 15s. 8d., which compares favourably with the balance of £3 10s. 4d. which existed at the end of 1908. Those who are interested in Tulips should join this old-established society. Full particulars can be obtained from the hon. secretary, Mr. W. Peters, Forcet House, Cambridge.

The Women's Congress—Japan-British Exhibition.—The following is a list of the afternoon lectures relating to women's work in agriculture being arranged by the Hon. Frances Wolseley, Principal of the Glynde School for Lady Gardeners in Sussex. The programme is roughly represented as follows: July 5, Lady Gardeners. In the chair, the Viscountess Falmouth. "Lady Gardeners," Miss Jessie Smith of Swanley College, Kent; "Lady Gardeners for the Colonies," Miss J. S. Turner, F.R.H.S., Principal of the County and Colonial Training School at Arlesey, near Hitchin; "Landscape Gardening and Expert Advice, Jobbing Gardening," Miss Lorrie A. Dunnington, Occasional Lecturer on Garden Design to the Architectural Association and Garden Adviser to the Chalfont Colony, Bucks; "American Landscape Gardening," Miss Beatrix Jones; "French Gardening," Mrs. O'Sullivan, Principal of the Stour Valley Gardening School, Sturry Station, Kent; "Market Gardening," Miss Dixon, Elmcroft Nursery, Watergate, Chichester; "Co-operation Among Ladies in Gardening"; "Nature Study," Hon. Mrs. Cell.

Mr. James Douglas's Auriculas. We have never seen a more beautiful display of Auriculas than at Bookham, Mr. Douglas's nursery. A full description of them will appear next week.

Jubilee flower show at Haarlem. The show has been visited from March 23 to April 17 by 82,418 visitors. The financial results are so good that the cost of the show is already nearly paid, and a surplus may be expected. This result is a very pleasant one, as the show has practically no subsidy from the State or any public corporations, but only a guarantee fund. Queen Wilhelmina and Prince Henry of the Netherlands have announced their official visit on May 26, and consequently the fourth temporary show will be held from May 26 to 29 instead of May 20 to 22. The third temporary show, May 4 to 12, will have the character of a special Orchid show, and is to be held under the auspices of the Netherland Club of Orchid Amateurs.

Roses and Sweet Peas at Uxbridge.—We have just received a copy of the schedule of the Uxbridge and District Horticultural Society, whose show is to be held at Hillingdon Court on Wednesday, July 13. In addition to the numerous local classes, there are two open to the United Kingdom, these being for Roses and Sweet Peas respectively. Copies of the schedule and full particulars can be obtained from the hon. secretary, Mr. Frank Grainge, The Cottage, Uxbridge.

Daffodils at Huntingdon.—The fifth show of the Hunts Spring Flower Society was held in glorious weather and with a large company present. Prominent among exhibitors were Messrs. Barr; R. H. Bath, Limited; W. and J. Brown; Reuthe, Keston; Cartwright and Goodwin; Laxton, Bedford; and Pearson, Lowdham. Messrs. Laxton's Carnations and Roses were much admired, while Messrs. Brown's Ramblers, Lyon Rose, Mme. Abel Chatenay and Kaiserin, were delightful. J. Cator, Esq., M.P., won Messrs. Barr's cup for thirty varieties of Daffodils, the trumpet varieties shown being glorious in the extreme and including Shakespeare and Mrs. J. H. Betteridge.

Messrs. Duncan Tucker and Sons, Limited, exhibit at the Ideal Home Exhibition.—In describing the interesting exhibit of this firm at the above exhibition an error unfortunately crept in; it should have been from Messrs. Duncan Tucker and Sons, not Messrs. Duncan and Sons, as reported on page 208. The display of this firm was one of the most important in that excellent show, consisting of the famous "Caloricult" house for forcing fruits with bottom-heat, a structure, as we pointed out, that should be in all gardens where forced fruit is a necessity.

Presentation to a horticultural society treasurer.—At a recent meeting of the Thornhill (Dumfriesshire) Horticultural Society's committee, the convener, Mr. R. F. Kennedy, made a suggestion which met with hearty approval from the members. This was that the present was a suitable opportunity for the members to mark their appreciation of the great services rendered to the society by Mr. James Fingland, who has acted with great ability as secretary and treasurer for the long period of forty years. The movement was highly successful, and the other evening a deputation waited upon Mr. Fingland and presented him with a silver Rose bowl and a purse of sovereigns. Mr. Kennedy made the presentation, and referred to the many vicissitudes the society had experienced during Mr. Fingland's term of office, and gave expression to the unanimous feeling that Mr. Fingland was largely the means of the society's prosperity and present success. He said that the members were deeply indebted to their secretary and treasurer, and assured him of the best wishes of his fellow-townsmen in his going into comparative retirement. They hope he might be long spared to enjoy it. Others of the deputation added their expressions of good wishes, and Mr. Fingland made a suitable reply.

The lasting quality of the Lyon Rose.—The remarkable substance possessed by this flower was demonstrated recently. After exhibiting flowers in the warm atmosphere of the Royal Horticultural Hall on the 19th ult. we despatched the blooms to Falmouth, and they looked quite well at the exhibition there on the following Thursday and Friday. This is an additional merit for the Lyon Rose, which has so rapidly become popular.—STUART LOW AND CO.

The late Baron Schroder.—Instead of sending to Baron Schröder's funeral a wreath of flowers, which would have faded in a day, the secretary of the Royal Horticultural Society advised the Council to establish a pensionership of £20 a year for five years, under the regulations of the Gardeners' Royal Benevolent Institution "In Memory of Baron Schröder."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Pulmonaria officinalis.—I should be greatly obliged to Mr. S. Arnott if he will kindly explain why he calls the above-named British plant "Jerusalem Cowslip"? I cannot find a single species of Pulmonaria—and I have before me a list of some eighteen—which hails from Palestine, much less from Jerusalem. Then why call it a Cowslip, seeing that in a general sense we apply that designation to one of the well-known Primulas? Pulmonarias are Borageworts and not Primulacea. Really, when these non-botanical names are given to plants, there should be some natural affinity between the two.—A. D.

The proposed International Horticultural Exhibition. — Your correspondent "H. P." emphasises in connection with the above exhibition the great need for less crowding and greater individualism of plants, or exhibits generally, than is ordinarily seen. With such suggestions all must agree who hold anything like bold views as to what flower shows should be. Apart from so much, what is further needed at all shows, but especially so in such an one as that proposed, is that not only should there be presented the widest possible representation of all plants or products of garden culture in season at the time of the show, but that these should be grouped in sections and not be indiscriminately distributed. Thus, all Orchids, Roses, Pæonies, Clematises, Fuchsias, trees, shrubs and the many other things presented should be so grouped that everything under its particular head should be found in one place. The same arrangement should characterise fruits and vegetables. If the arrangement should result in the production of a mere mixed display, a sort of horticultural *olla podrida*, then it will be a profoundly disappointing exhibition. It is to be regretted that because such an exhibition can be held only in the early summer—for the London season will largely dominate the time of holding it—large numbers of very widely grown and beautiful plants cannot be presented. Hardy trees and shrubs when in flower in the spring are such beautiful objects but will be generally over by June. So will the Tulips and Daffodils, and Dahlias and Chrysanthemums will not then be in. To get a full representation of the world's horticulture it is needful to have a series of great exhibitions spread over April, June, August and October, but such a desideratum is not possible. All the same, very much of a great kind may be done with the proposed show, if of only a couple of weeks' duration.—F. R. H. S.

Poisonous plants.—In reply to "Hayward's Heath," page 199, anent this subject, there is no doubt about the poisoning effects of

both Primula obconica and P. sinensis, though while instances of the ill resulting from contact with the former are abundant, they are rare so far as concerns the latter. Curiously enough, P. sinensis has no terrors for me, though P. obconica I could not easily be tempted to touch. As a seven or eight years' sufferer from its poisonous effects, and after spending large sums of money with medical men who knew not what was wrong, I discovered the cause of all my trouble through reading an account of its evil work in an American gardening journal, it being stated that 40 or 50 per cent. of those handling the plant in America suffered in consequence. After deliberate experiments on myself, with very convincing if painful results, I decided not to touch the plant, and for more than twenty years I have kept my word. For weeks together the fingers of my hands have been a mass of watery papules, the terrible itching and inflammation being well-nigh intolerable. In severe cases the once-poisoned hands carry the poison to other parts of the body, and in this way the eyes, or indeed any part of the face, may become a mass of inflammation. At the time of which I write, a large number were affected by the plant—the original species which had then hardly begun to break away being that grown—and it is highly probable, judging by the comparative rarity of cases to-day, that the wilding secreted a poison far more virulent than that of its modern offspring. Instances of one person being affected by both Primula obconica and P. sinensis are, I believe, quite rare. P. sinensis I have always been able to handle with impunity, while to a gardener two miles away who could handle P. obconica with impunity, P. sinensis was ever a source of trouble. In that experience only two persons, the writer and his daughter, suffered out of a total of seventeen, while in the case of poisoning from handling forced Daffodils one solitary workman was alone affected. His case was so serious, however, that he was relieved from the work altogether. The sufferers from Daffodil poisoning are those chiefly whose hands chap, the exuding juices of the freshly gathered flowers entering the flesh by these means, and, presently forming crystals, set up the irritation and subsequent pain. In like manner some species of the milk-exuding Spurges (Euphorbia) are highly dangerous to a few. Most dangerous of all, however, is the Poison Ivy (Rhus Toxicodendron), the brilliant leaf-colouring of the plant in autumn only placing a greater temptation to handle it in the way of unsuspecting persons. There are not wanting instances of severe blood-poisoning arising out of contact with this innocent-looking and very beautiful plant. In the bulb store the frequent handling of Hyacinths gives rise to irritation, the cases being few, however, and the attack of a very slight nature. Those affected by any of the above should either let them alone or wear gloves when working among them.—E. H. JENKINS.

—— "Hayward's Heath" may be interested to know that once, under a sunnier clime than this, I had several hundred Crotons in my garden, and that it was my custom to pinch out their centres to prevent their growing "leggy." One day I did this without noticing the presence of a recent scratch on my hand. The results were very serious, entailing at least forty visits from a much-puzzled, though able, medical man. The sap had entered the scratch, and it was a long time before its ill-effects left me.—SCOTIA, *Thorpe, Norwich.*

Primula obconica.—The coloured plate of that delightful variety of Primula obconica, Fire King, is particularly interesting to me, for I happened to be at the meeting of the Royal Horticultural Society on March 28, 1882, when a first-class certificate was awarded to the original species. The famous traveller, Charles Maries, found it in the gorges of the Yangtsze in the Ichang district of China. It first flowered at Chelsea in September, 1880. This Primula was first known as Primula poculiformis, and as such was figured in the *Botanical Magazine.* It is not at all probable that anyone who saw the plant as first introduced was prepared for the great improvement that has now been effected in it, an improvement much analogous to the older Primula sinensis. At the time of the introduction of Primula obconica Central and Western China were comparatively unexplored, but since then a great number of other species have been added to our collections from the same part of the world. Even if none of them forms the foundation of a new race equal to Primula sinensis and P. obconica, many are very beautiful, and are sure to prove of great value to the hybridist, the earliest results of whose work are already coming to hand. In the case of the two species just mentioned, it is judicious selection and careful fertilisation which have led to such important results.—H. P.

Iris tingitana.—In reply to the enquiry made by "H. G. H." in your issue of April 9 *re* Iris tingitana and the past wet summer, I may say that up to the present we have had no flowers this year of this beautiful Iris. On looking over, however, a little colony growing here on a warm border, I counted upwards of forty flowering spikes. It rarely blooms in these gardens until the middle or latter part of this month. Knowing "H. G. H." to be an enthusiastic lover of his garden, I presume he is well aware that this lovely Iris from Tangier requires to be lifted every year about August after the foliage has died down, and should be thoroughly baked in the sun. Early in October they should be replanted in very rich soil. Iris bucharica is flowering well in the same border, while I. reticulata and I. stylosa have also given a good account of themselves.—F. W. RICH, *Elfordleigh Gardens, Plympton.*

Alpine flowers under glass.—I do not at all agree with "A Lover of Alpines" in his strictures. I know, of course, the proper place for these things is an outdoor rock garden; but in many parts such a thing is impossible—in towns, for instance. I live on the Cotswolds, in a splendid atmosphere for alpines. I have not a large garden, but started in a small way thirty years ago. I have a rock garden which, for its small size, will take some beating; but unless I grow some alpines under glass for three or four months in the year I have few of my favourites to give pleasure. It is not a cheerful thing to go out in a fog or frost and find, say, Crocus Imperati on the ground with its neck broken; and so with many other things. Now, by potting up a few plants and growing them in a cold house, one saves them from damp or rough winds, and can enjoy them at leisure without any fear of getting an attack of rheumatism or a severe cold. Of course, I should not dream of potting up things whose natural time of blooming is after the middle of April. I am sure a good list of plants which will bloom well under glass and those which are better under it will be appreciated by others as well as by—NORTH COTSWOLD.

Some dainty booklets.—Mrs. Davidson (page 182) deserves the thanks of all interested in alpines for her much-needed warning against "rooteries"; and yet, would it be believed that the rock garden at Kew was originally composed of such. Mr. William Robinson frequently warned the Kew authorities what would happen. It is pleasing to know that all this is altered now.—A LOVER OF ALPINES.

Celeriac or Turnip-rooted Celery. I cannot understand your correspondent for the South and South Midlands on page 175 recommending the planting of Celeriac in trenches, as this is contrary to the good culture of this excellent salad and vegetable. It is generally understood by those thoroughly conversant in its culture that to grow fine Celeriac a long season is requisite, and that as far as seed-sowing and the pricking off are concerned, it may be treated in the same way as Celery; but after the first stages the treatment is altogether different. Unlike the ordinary Celery, this variety does not require trenches. The plants should be put out on the level about 15 inches apart each way, and ought to be planted as shallow as possible. Before planting, all lateral shoots and side roots should be carefully removed from the tubers, and when the planting is completed water freely. The after-cultivation consists in keeping the crop clean and frequent removal of the soil away from the plants, for the more they stand out of the ground the better. Continue to remove the side shoots and fibres, but not so as to check the growth.—F. W. RICH, *Elfordleigh Gardens, Plympton.*

Use of green paint.—I read with much interest your remarks regarding the use of green paint, and, with you, much dislike the vulgar bright greens that are ordinarily employed. When having my own garden seats, &c., painted last year, I showed the painter one of the beautiful green Japan lacquer trays that one can sometimes buy, and insisted upon the same colour being matched and used, and the effect is most pleasing.—E. T. L.

Horticulture in Scotland in 1759 and now.—I was deeply interested in the remarks of "A. D." *re* the above, on page 123 of THE GARDEN for March 12, and also the preceding article in the issue of February 19. The late Mr. Richard Dean—brother of "A. D."—whose memory we all revere, said that the old-fashioned flowers formed lines of communication more subtle, swift and constant than either telephone or telegraph. To some there is little artistic beauty and even less poetry in the Potato; yet one must confess that the mere mention of these old varieties carried one's memory back to more than forty years ago. The old names once so familiar now exist only in memory—the Jersey Blues, Regents, Fortyfolds, Rintoul's white and pink-eyed Dons, Paterson's Victorias, red-skinned Flour Balls, Rocks (rather coarse, with deep-set eyes, these defects being compensated for by its disease-resisting powers, and that was much to be thankful for in those days). All these, with a host of American varieties, after having served their day and generation, ceased to exist. The offering of prizes would help to break down the prejudice which existed after its introduction into Scotland. The lairds were afraid that it might seriously affect the demand for grain, but these fears proved groundless. The erroneous modes of culture hindered its progress, and the consequent slowness with which it enriched the families of the poor was in striking contrast to the impoverishing Tobacco Plant—brought from America at the same time—which spread over Europe with astonishing rapidity. The exact date of the introduction of the Potato into Scotland is not really known, the first record of its full culture being associated with Stirlingshire. Thomas Prentice, a day labourer in Kilsyth drawing his subsistence partly from the produce of his little plot of ground, was the first to attempt its extended culture. This was in 1728. The crop proved extremely valuable, and was instantly in demand by cottagers and farmers alike. He continued to cultivate it carefully, and, being frugal and industrious, in a few years he found himself the happy possessor of £200—a lot of money in those days. When he had "made his fortune" he sunk his capital in an annuity, at good interest, upon which he lived independently to an old age. The evening of his days was spent in Edinburgh, where he died in 1792, aged eighty-six. Thus, for the long period of sixty-four years he was a witness to the great blessing he was instrumental in conferring upon his country. To Mr. Robert Graham of Tamrawer, in the same parish, belongs the honour of cultivating it in the open field. In 1739 he planted half an acre on a croft named Neilstone. So successful was this experiment that he rented land near Renfrew, Glasgow, Perth, Dundee and Edinburgh, supplying his neighbours and markets also. After this the progress of the Potato was more rapid, and all

went well until 1826, when the disease first attracted the attention of growers. This was the result of degeneration and decay, caused by repeated propagation from the old varieties. In 1846, in one night a fatal blight nearly destroyed the whole crop of the nation. In less than a decade—1853—the plants had been so weakened by propagation that they ceased to bear seed. Potatoes were then imported into Scotland from Central America, Chili, East and West Indies, Australia and the Cape of Good Hope, and were planted promiscuously with Rock Potatoes, brought into Scotland in 1848 from Ireland, in a field of newly taken-in land manured the previous autumn. Most of the plants flowered and a few bore seeds, but the experiment was successful. The seed obtained from these insignificant-looking things has produced the countless new varieties that have restored the Potato to its present comparatively healthy state. The later history need not be told further than this. That famous Potato, The Bruce, was the result of a cross between Paterson's Victoria and Late Rose. Its raiser, Mr. Findlay, obtained some of his best crosses when the Victoria was one of the parents.—S. H. S.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Kitchen Garden.

BEETROOT.—The main crop should be sown now. Select a piece of ground that was well manured for the previous crop, for although Beet delights in a good rich soil, nothing in the shape of fresh manure must be given just before sowing. Misshapen roots and grossness are caused by the use of rich food at this time. Make the ground firm by treading, rake it over and draw the drills 18 inches apart. Sow the seed thinly and evenly, and thin out the seedlings as soon as they are large enough to handle. Cheltenham Green Top is one of the best for flavour and one that should always be grown. Nuttall's and Dell's Crimson are also good.

Seakale Beet —This is a very useful vegetable, and used as Spinach comes in handy. Sow in drills 15 inches to 18 inches apart.

Chicory.—This makes an excellent salad plant when forced in the Mushroom-house during the winter. Sow now in drills 15 inches apart, and thin out the seedlings to 9 inches apart as soon as they are large enough. Witloof or Brussels is, perhaps, the best variety to grow.

Dandelion.—Sown now and treated in the same way as Chicory, this forms a useful addition to winter salads.

Broccoli.—Late Queen, Model, Leamington and Late Wilcove should be sown to ensure a late supply next season, also Cottager's and Asparagus Kales.

Rose Garden.

Roses are growing apace now, and a sharp watch must be kept to prevent green fly and other pests getting a hold of the plants. If a flock of sparrows are seen flying about among the bushes, then one may be certain that there is green fly about. It invariably appears during May, when cold winds are often experienced. A weekly syringing with Quassia extract is an excellent preventive of this pest. A close examination of the leaves is necessary in case the maggot has obtained a place on them. They may be easily detected by the curling of the leaf, and when found should be picked off and burned. In many cases mildew does not put in an appearance till June, but when it does, dusting with flowers of sulphur when the foliage is damp is effective, as is also syringing with mildew specific. All syringing should be done late in the day; on no account must insecticides or fungicides be used on Roses when the sun is bright. Where specimen or exhibition blooms are required, a slight disbudding will be found necessary. Reduce the number of shoots by rubbing off some of the weaker ones. Allow only one bloom to a shoot.

Flower Garden.

All plants intended for summer bedding should be gradually hardened off in cold pits and frames. They must not be too much exposed to the cold winds for a start, or the growth receives a sudden check, from which the plants take some time to recover. Begonias require a covering over the glass at night till they are accustomed to the change, and if the foliage is at all tender, a slight shading is necessary to protect it from the hot sun.

Annuals.—More Mignonette, Gypsophila and similar kinds should be sown to give a succession. Gypsophila is so very useful for associating with flowers for decorative purposes that three or four sowings should be made. Thin all those that require it, as they become drawn and weak if left till the plants are too large. Scabious, Salpiglossis, Poppies and all the taller-growing subjects will require a little support as they grow up. Short Pea-sticks are the most useful things for keeping them up. If these are placed between the rows early, the plants cover them when in flower. Use sticks according to the height of each variety; thus, if Poppies grow 4 feet, use 3-feet stakes.

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Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Preparing Flower-beds.—Where the beds are filled with spring flowers, nothing can be done in the way of getting them ready for their summer occupants; but where they are vacant, it is a good plan to now fork them over, making them level and true, as this greatly lightens the work when the planting is about to begin. I do not at all favour the raking of the surface smooth and fine, as it is no aid to the planting and induces a heavy crop of weeds. Time can be much more profitably spent. If well hardened off many plants can now be got out, and will be all the better for being thus early planted in their permanent quarters. Pentstemons, Antirrhinums, Dianthuses, Pyrethrums and similar plants will all be perfectly safe now, and very soon Calceolarias may be trusted in the beds. This will lighten watering and give much needed space in frames, where things get considerably congested at this season.

Rose Garden.

Disbudding.—Many bushes are spoiled because there are far too many shoots. A systematic disbudding should be carried out, and the sooner the bushes are now looked over the better. I fear that a considerable number of the branches that looked fairly healthy at pruning-time will by now be apparently quite dead. All these should be cut clean out, and then all the weakly or badly placed growths should be rubbed out. Do not be too severe at first; rather go back over the plants again in a fortnight's time. Keep a lookout for green fly, as this pest soon gets a footing in some districts. Stir the soil well with the hoe, as no other plant derives more benefit from frequent and thorough loosening of the surface over the roots.

Kitchen Garden.

Peas.—Sow full crops according to demand. Stake always in good time, for Peas that have been allowed to get blown over before having the supports given them never do much good. Where the soil is light and dry, sowing in shallow trenches is to be commended, as by this metho water, which is essential, is much more easil applied than when the rows are on the level.

Kidney Beans.—This fine vegetable can no be safely sown in quantity, but in different part of the garden. Always sow the seeds abou 3 inches apart in the rows, as, should the weathe be wet after they are put in, numbers may r and cause blanks. Should every seed germinate it is quite easy to thin to 6 inches after th plants are 3 inches above ground. Kidney Beans if they are to be a success, require an open, sunn situation, but must not suffer from drought a any time. A good rich soil gives the fines Beans.

Runner Beans.—This is a very useful an nutritious vegetable, and often succeeds wher the Dwarf Beans fail. Deeply trenched an heavily manured ground is essential for the bes results. As in the case of the Dwarf Beans, th Runners should be planted rather thickly, an thinned out when large enough to abou 12 inches apart.

Lettuce.—Great improvements have of lat years been effected, especially in the Cabbag section of this valuable salading plant. If th right varieties are grown, there is a possibility o having as crisp and tender Lettuces of th Cabbage type as can be had by using the bes Cos sorts, while the trouble is less by half a least. For earliness Carter's Holborn Standar is second to none. For the main crop New Yor Giant is in every respect a first-rate sort. Ice berg, Dickson's Pearl and Sutton's Heartwel are all of first-rate quality and stand a lon time before bolting. Sow every fortnight unt the middle of July, and in quantity accordin to the demand.

Potatoes. — Constantly stir the soil betwee rows of Potatoes, and earth-up as soon as the are fit. Before earthing-up, a good dusting o soot should be applied and the soil be well forke between the rows. A little superphosphate o lime is also good for Potatoes, and should b sprinkled between the rows before hoeing. It i better to give too little rather than too much, s due care must be exercised.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

WORKERS AMONG THE FLOWERS.

MR. AMOS PERRY.

ONE of the most accomplished an best-known horticulturists is Mr Amos Perry, whose knowledge o hardy flowers is profound. Mr Perry's early life was devoted t scholastic pursuits, but a seriou breakdown in health altered the course o events to that of horticulture, with the mos gratifying results. At the time of Mr. Perry illness his father was engaged in forming nursery for Mr. Thomas Ware, for Rose fruit trees, &c.; these, however, in cours of time gave way to hardy perennials. W well remember the nursery at Tottenham an the remarkable success achieved with even th most difficult of alpine plants to establish Much of the present popularity of the hard flower is due to the enthusiasm of the late Mr Ware and Mr. Perry. At that period many of th old collections were disappearing and the deman for the plants had practically ceased. Beautifu mixed borders were being actually destroyed t make way for showy exotics. The rage fo Geraniums, Fuchsias, Verbenas, Calceolarias an many other plants was immense, and for year were popular throughout the country. Amon the old trade collections Mr. Perry saw disperse were those of May, Rollinson, Wheeler Youell, Parker, Henderson and many other

Large purchases of the finest kinds were made, and this was the beginning of Ware's collection. Although the demand was very small for years, Mr. Ware had confidence in the future, and Mr. Perry was given every opportunity to increase both stock and variety. All the botanic gardens of Europe were visited, as well as private collections, and it was not long before this famous nurseryman had secured every plant worth growing; the Tottenham collection became, in the course of time, the most complete in existence. When this collection was brought to perfection, Mr. Perry had an opportunity of visiting all the mountain ranges of Europe for the purpose of discovering new and rare plants and collecting those that were difficult to propagate, and during this period hundreds of plants were collected, many of them new to cultivation and now common in English gardens.

Then came an important move. After the dissolution of partnership Mr. Perry started a small nursery at Winchmore Hill, and since then a large one at Enfield. The beautiful groups exhibited from Enfield are testimony to the extent and interest of the hardy flowers grown by this famous specialist. Last year over 40,000 Delphiniums were flowered, the finest varieties up to date, and the collection of Irises numbers more than a thousand species and varieties, while the magnificent groups of Water Lilies that have been exhibited during the last few years will be in the memory of everyone. Pæonies, Phlox, Pentstemons, Pyrethrums and hundreds of other families are to be found in immense quantities, the whole forming one of the best collections we have. One phase of horticultural work followed by Mr. Perry has been the raising of new plants; and we well remember the most instructive and delightful lecture on this subject that he delivered some years ago at the Horticultural Club. Our gardens owe much to such men as Mr. Perry.

THE FLOWER GARDEN.

DAFFODIL NOTES.

At Haarlem, April 15.

THERE were several collections at the Jubilee Show. Messrs. de Graaff Brothers had a large exhibit, including many good things, such as Lord Kitchener, Czarina, Sunrise, Lord Roberts, Eoster and Homespun, and a few novelties. Princess Juliana was figured in The Garden last year. In my opinion it is one of the very best large trumpet Daffodils in existence. Its deep yellow colour, perfect symmetry, and harmony of trumpet and perianth mark it out as pre-eminently a florist's flower. This is the second time of asking. If anyone who has seen the Daffodil Princess Juliana and disputes the accuracy of my remarks will write to The Garden, I will be glad. A companion of equal merit was the quite new Golden Jubilee, a tip-top giant incomparabilis. It has a perianth as even as Homespun, but instead of a cup-shaped centre, it has more of a trumpet, the rim of which recurves like Mme. de Graaff. It is a flower of medium size but perfect form; in fact, some might say it was too perfect. A third lovely little bloom was the white Magni Reullura. It opens quite white and has a very taking look. For those who admire big things there was one of the largest white trumpets in the person of Uncle Robert. It has the lop-eared type of perianth, but for all that it is a noble, harmonious flower.

There were also collections from M. van Waveren and Co., Messrs. S A. van Konijnenburg and Co., whose Conquest (No. 500) was a beautiful thing that might or might not be a Poet; Messrs. van Meerbeck and Co. and Mr. J. Konwenhoven, Warmond.

At Vincent Square, April 19.

There were a few good flowers placed before the committee, of which one, Matthew Arnold (Cartwright and Goodwin), received an award of merit. It is of medium size, and in its eye takes after Homer and in its perianth after Almira, but it is a flatter thing altogether. The other flowers that were "put up" were Harold Finn, a large red-eyed Poetarum; Ibis, a fine Poet; Homespun; Don Quixote, a rough incomparabilis with a sort of Princess Mary cup; and Barbara, a pretty little white trumpet with rather short and broad perianth segments. There were a large number of groups. Seldom, if ever, has the number of them (fourteen) been exceeded.

Before I got to the hall I heard, "Engleheart is showing. He has some fine things." Naturally, on my arrival at the hall I at once made my way to the South Annexe, where I found him and his assistant in front of a magnificent stand of about 150 new kinds, all his own raising and representative of pretty well every section. Yellow trumpets were especially strong, and they included all types and sizes. Alas! for the poor reporter that the exigencies of trade foster showing under numbers! Seven is the mark of the Beast and forty-two is John Brown's Knapsack, but 379 does not tell us that it is the number of a really superb yellow Magni of the very best Glory of Leiden type, and of a richness and substance that recalled Michael of a fortnight previous; nor does 317 tell us that it is another of the most beautiful flowers that Mr. Engleheart had. This was a flower with all the nice points of Princess Mary and Stella superba combined and their weak ones left out. Those who have read Miss Silberrad's book, "The Good Comrade," know of the quest of the Blue Daffodil. Well, on this stand one saw a novelty which, if not quite so startling, was one which caused a great deal of talk—a green-eyed Poet. There on the top row was a vase with three small blooms, each of which had a medium-sized flat eye with the whole of the middle of a lovely pale green, surrounded with a wide margin of red. It was a unique flower and attracted a great deal of attention. Then there were some Nelsoni-looking things with delicate apricot in the cup, several fine large white trumpets, of which 81—10 was one of the best, and a few beautiful Leedsiis. Taken on the whole it was a marvellous exhibit.

MR. AMOS PERRY.

Messrs. R. H. Bath, Limited, had the best collection they have had this season. I noticed Brilliancy and Fireflame, their two giant Barri conspicuus. They are very similar in their general appearance, but Fireflame is about ten days later. They also had a vase of their new giant Leedsii Crystal Queen. It is a tall and vigorous grower, and should be useful with these characteristics for gardens. We badly want a tall White Queen race. Lulworth was in splendid condition; so was Spinnaker, which is like a small Great Warley.

Lissadell sent a good collection, and there were again about two dozen of their own raised seedings. 395—05 was remarkable on account of the width of the perianth segments. They were very flat, of good substance, and almost as long as broad. This gave them a curious square look. 314—05A was a good giant Leedsii; 491—05, a pale Barri conspicuus; and 314—05 B, a very pale sulphur yellow incomparabilis. Lady Margaret Boscawen was very fine both here and with Messrs. Cartwright and Goodwin. As a garden plant it still takes some beating.

Messrs. Hogg and Robertson are to be congratulated on showing, for the first time, some of their own seedlings. Every year more and more new flowers make their appearance, and it is more and more impossible to keep up with all the fresh things; Evangeline, White Lady, Flambeau, Primrose Phœnix, Gold Eye (which is so difficult to grow) and several other good market kinds. Mrs. F. W. Moore is a most distinct white Magni, with broad, short perianth segments and a sharply cut off trumpet which curves out a little at the end. Mr. W. A. Watts had a few nice flowers, but, unfortunately, they showed signs of the weather. Yellow Rosette is a distinct and striking double, very full, with symmetrically arranged petals (?). He also had a lovely white trumpet, 119, and a yellow one.

Robert Sydenham, Limited, had a stand full of commercial varieties. Lucifer was especially good, and so was Cardinal. This last I have never grown myself, but from all accounts I hear one ought to do so. Bennett-Poë, Homespun, Albatross and Magpie must not be omitted.

Mr. F. Lilley now seems to be a regular exhibitor. He had nothing very striking in the way of novelties, but there were fine vases of Gloria Mundi, Cassandra, Una, Jaune Merveille (Poetaz), Alsace Poetaz and the lovely Diana. I always think of the late Mr. Bourne when I see this. It was one of his favourites. It is a lovely flower and does well in gardens; it may be described as a large Minnie Hume, with a slightly reflexing perianth.

Miss Currey's flowers did not look as fresh as they generally do when we see them in London. Unfortunately, Miss Currey herself was detained at home by that unwelcome visitor, influenza. The stand was peculiarly rich in white Magnis, such as Lady of the Snows, Atalanta and Florence Pearson. The great interest in the exhibit consisted in the new oval-mouthed vases that were used for the first time. They are supplied by Mr. Thomas Jones of Ruabon, of Sweet Pea fame, and are a replica of his well-known Sweet Pea vases, only with an oval instead of a round glass. They cost, retail, 15s. a dozen.

Mr. Herbert Chapman had a very tastefully grouped little collection of home-grown flowers—about forty were home-raised seedlings. Swashbuckler, in accordance with its name, stood out prominently in the centre. It is certainly very large, and, as it has good form, will take a leading place among the White Queen type of Leedsiis. Lustre was a most striking bloom. It has triandrus blood in its veins, and is a scintillating pale primrose self of an octopus look, or, as I have before described it in speaking of Estelle, like a walking spider.

Messrs. Cartwright and Goodwin were evidently keeping all their best things up their

sleeve until Birmingham; but for all that they had some very fine things—Bert Sands, a giant bicolor incomparabilis like a rounded off Lady M. Boscawen; King Cup, the lovely rival to Homespun; White Cloud, one of the absolutely pure white triandrus hybrids; and Goldfinch, a grand deep yellow Magni. An interesting little hybrid which most people would pass by unnoticed was one that looked like a miniature Katherine Spurrell. It is the result of crossing Minnie Hume with a Jonquil, and is remarkable for having the Jonquil scent transmitted to it.

Messrs. Barr and Sons had an extensive collection, but there were not very many novelties compared with what they had a fortnight previous. I noticed the marvellous Furnace, with probably the reddest of all cups; Dubloon, the yellow Argent; Cornelia, about the very best of all the van Waveren trumpets; Mrs. G. H. Barr, a highly refined White Magni with a square-shouldered perianth; and Bedouin, the lovely improved Crown Prince.

Mr. Wilson had a fine lot of blooms; space forbids me to mention more than one called Patchwork. It was a small incomparabilis variety with a most pronounced scalloped edge to the cup, each alternate segment being tipped with orange red. Personally, it reminded me more than anything else of a cog-wheel, and I think I would have been disposed to call it the "clock" or the "watch," as one always associates cogs with watches and clocks. It had an ivory white perianth.

There were two entries for the Barr Cup, which was won by the Rev. G. P. Haydon. He had a fine lot of flowers, a great many his own seedlings, white trumpets and yellow trumpets very strong. Pearl of Kent, China Ware and The Grey Mare, all tip-top flowers among the whites, and Broad Oak and Stockwell among the yellows were prominent among many good blooms.

The Rev. Canon Fowler was second and staged all well-known commercial varieties; Cedric, one of the best of W. B. Hartland's Leedsiis, was noticeable.

JOSEPH JACOB.

A NEW NARCISSUS—APRICOT QUEEN.

THIS splendid Narcissus created a considerable amount of interest when shown by Mr. Wilson at the Royal Horticultural Society's exhibition on the 5th ult. It is an exceedingly striking flower of the Engleheartii or flat-cup section. It is large and very round, being fully 3½ inches across and the segments 1¼ inches broad. The perianth is flat and of much substance. The segments, which are of the palest sulphur, are very smooth, broad, well rounded and very much overlap. The disc-like eye is quite flat and measures 1⅜ inches across, being larger than a half-crown piece. The colour throughout the entire cup is a rich bright apricot; it is certainly the best flat-cup of this colour yet introduced. The stock is in the hands of Robert Sydenham, Limited, but there are only three or four bulbs to be sold this year.

THE NEW NARCISSUS APRICOT QUEEN. (*Natural size.*)

SWEET PEA CHAT.

PLANTING.—The enthusiastic grower who prides himself on being rather before than behind time will inevitably think that this is a belated subject to which to devote a paragraph, but all are not so smart, for one reason because they are naturally a little slack, and for another, that circumstances over which they have no control have made it impossible to carry out the task before now. There is, of course, a possibility that they will lose something in being as late as this, but it will largely be in the earliness of flowering, since with proper attention the plants will grow and thrive practically as well as those put into their permanent positions three or four weeks ago. Some few amateurs with strong plants in pots may hesitate to plant out, regarding it as a waste of time; but this they must not do. Assuming that the situation chosen has been thoroughly prepared and that planting is done at once, success is assured, provided that nothing absolutely unforeseen occurs to upset one's calculations. Needless to say, it will be imperative to soak the soil the day prior to planting should it be dry, as the roots will be seriously injured at this stage if they go into perfectly dry ground. It will also be wise to water heavily either immediately after planting or the next day.

DRAWING UP SOIL.—Many amateurs make it a practice to sow their seeds or set their plants, as the case may be, in a depression, and where the soil is light this answers well, but in heavy lands it is a doubtful advantage; on the contrary, it is almost invariably preferable in such soils to draw up the mould to the base of the plants and thus give it a fall from the stems. The objection that is raised to this system is that it makes watering difficult, for the reason that the liquid runs away from the plants directly it is applied.

To some extent this is doubtless true, but those who water with special care always do so in channels or drills running along each side of the line, and these are, or should be, drawn several inches from the stems; the water will percolate steadily into the ground, and there is not the slightest fear of the roots losing any of the benefit of its application. In addition to this, drawing up the soil affords decided protection to young plants that are on the tender side, and often saves them from destruction by piercing winds.

STAKING.—This is one of the most important operations of the moment. In the vast majority of instances the young plants will be well up towards the top of the short supports, and the permanent stakes must be placed in position before the leader has the chance to fall over; otherwise in pulling it up again there is a danger that it will be broken, and even the keenest of advocates of topping would scarcely recommend it at this stage. In my last notes this subject was dealt with, and it is alluded to now simply to impress upon inexperienced readers that it must be done promptly if it is to be quite satisfactory. Even where the plants have not yet approached the height of the preliminary twiggy sticks, it is wise to get the permanent ones in position, as they will not prejudice the progress of the plants in the smallest degree and will be ready when they are wanted. Precisely as is always advised in the earliest stages, the plants may advantageously be tied at first with secure yet loose ligatures—something that will hold up the leader without arresting its advancement up the supports, whatever they may be.

HOEING.—With plants that have been raised from seeds sown directly into the lines or clumps, surface hoeing should commence immediately the seedlings show through the surface of the ground, while with plants put out from pots this operation should start within three or four days. Of course, those who handle the tool carelessly or run it in deeply are just as apt to do harm as good, but with skilful work the frequent hoeing cannot be other than decidedly beneficial. Not only does it prevent the waste of food by capillary attraction, but it also encourages the free admission of water when rain is falling, and this is always followed by fresh air, which keeps the soil sweet and, therefore, immensely benefits the roots of the plants and, through them, the stems and flowers.

SPENCER.

CORYDALIS SOLIDA.

THE test of a good garden plant is the assurance that every year, at its appointed season, it should give one extreme pleasure. This old favourite of cottage gardens does this for me so well and faithfully that I wish to remind others of its merits. I have it grouped with the common Dog's-tooth Violets, the two plants nearly agreeing

in colour. Near them and harmonising pleasantly is a patch of the rather tender Megasea ligulata, and behind all these—the colour of the bloom now passing, but enough of it left to help the picture—are some plants of a hybrid Lent Hellebore of dark purplish red colouring. G. JEKYLL.

ROCK GARDEN AT CROWBOROUGH.

THE illustration on page 229 shows the corner of a rock garden at the point of junction with a Rose walk. The atmosphere at an elevation of 800 feet and the soil overlying Ashdown sandstone are almost ideal for this type of garden. The local stone is good and retentive of moisture, but it needs judicious selection if it is to weather well. The white blocks of stone always powder into something suspiciously like clay. For successful gardening at Crowborough shelter from rude winds, deep digging and good drainage are necessary; but given these essentials, almost anything generally growable will flourish. For instance, in the rock garden illustrated Bamboos (Métake) planted three years ago are 12 feet high. Two Agapanthus umbellatus have withstood three winters without artificial protection. Osmunda regalis from a Norfolk swamp, Sedums scraped from the rocks of Dartmoor, Stag-horn Moss and Flame Flower from the Highlands, and Primula japonica are all equally happy. Irises of all kinds, Pæonies and Polyanthus do exceptionally well, while self-sown Lupines are a greater bother than any weed in the garden. All alpines and rock plants which do not need a dry, sandy soil thrive luxuriantly. During the last nine months the growth of Moss has been phenomenal, covering every exposed stone and even overcoming some of the less robust Rosette Saxifrages.

Warren Lodge, Crowborough. E. W.

COLOURED PLATE.

PLATE 1399.

THREE POPULAR SWEET PEAS.

ALTHOUGH new varieties of Sweet Peas are being raised and put on the market every year, there are many excellent growers who prefer to rely on older and well-tried varieties. Certainly there is some justification for this, both on the score of expense and fixity of the stocks. Among the older varieties that still retain a firm hold on popular favour are the three shown in the accompanying coloured plate. Previous to the advent of Clara Curtis, which, by the way is a waved variety, Mrs. Collier was regarded as the best primrose variety, its vigour and free-flowering qualities rendering it an ideal variety for garden decoration as well as for exhibition purposes. Fixity of stock has been referred to above; but it is only during the last two or three years that anything like a true stock of John Ingman could be secured. Many growers were under the impression that they had a true stock, but very few really knew what the original John Ingman was like. When true it is an excellent variety in every way. Black Knight is still a great favourite, and deservedly so, as there are few of its colour that can be said to surpass it. Several new ones are being grown this year which promise to take its place; but one hesitates to declare that they will do so until they have been fully tested. Hannah Dale is, perhaps, somewhat larger and has a richer mahogany sheen to the flowers, but one would scarcely need to grow both this and Black Knight. In speaking of old varieties, one cannot help but wonder how many of the new sorts that are now in the zenith of their fame will retain their popularity so long as such varieties as Black Knight has done. Year after year we see them passing in review, and in a few seasons many of them dwindle away, to be superseded by others that take the fancy of the moment. H.

THE GREENHOUSE.

AN AMATEUR'S ORCHID HOUSE.

THE number of amateurs who are taking up Orchid culture in a small way is certainly on the increase, and we often meet with the man who at one time contented himself with Fuchsias, Geraniums and similar plants now turning his attention to Orchids. But to be successful a slight change must be made in the interior of the greenhouse, and the conditions therein also vary. The question what to grow will, no doubt, be a perplexing one to the beginner, but this will, to a great extent, depend upon his accommodation and the amount of money he is prepared to pay for his hobby.

For anyone who is just starting Orchid-growing I would suggest a cool or what is popularly known as an Odontoglossum house, and it matters little whether this is a span-roof or lean-to; either will prove satisfactory if a genuine interest is taken in the plants.

STRUCTURE OF THE HOUSE.

Both top and bottom ventilators must be provided, as fresh air is very essential for cool Orchids; but dry, cutting draughts must always be prevented. The heating arrangements should be ample; in fact, it is better to have a little more piping than is really necessary, thus providing a larger heating surface which will not produce that dry, arid condition so often prevalent where an ill-constructed apparatus exists. It should always be borne in mind that the less fire-heat we use the better it will be for the inmates. An open trellis stage will probably be already in the house; over this is placed some ordinary slates or other durable material, on which is laid some finely broken coke about a couple of inches in depth. This should be kept moist by frequent dampings with the water-can. Above this a wooden stage, made of unpainted battens and in suitable lengths, is arranged upon 4-inch pots or pans to bring the plants within 2 feet of the glass. The floors are made of ashes, and may be covered with a wood trellis-work if desired, but this is not necessary if the ashes are forked up and raked over occasionally.

Blinds are needed during the summer months, and those known as lath blinds are recommended. They will be a little more expensive than canvas, but they last for a longer period, and may also be used at night for protection when the weather is cold and frosty. Whichever are chosen, they should be so fixed on rafters to run clear of the roof, and thus allow a free current of air to pass over the glass.

Such is a brief description of an Orchid house; and now for a few remarks on the conditions prevailing inside. The lowest temperature is 50° Fahr., but during exceptionally cold weather a few degrees lower will do no harm if the atmosphere is fairly dry, and for the summer months it should be kept between 60° and 65° Fahr., or as near these figures as possible. Cool Orchids ought never to be subjected to strong sunlight, and for this reason the blinds must be lowered directly the sun begins to shine on the plants, and remain down till late in the afternoon, which, of course, will vary according to the time of year. In winter all the light possible is needed, and to this end the glass, both inside and out, must be kept clean and the growing plants given the lightest position at the warmest end of the house. Give plenty of ventilation whenever the outside conditions warrant it, and, excepting during very rough winds and frosts, the bottom ventilators may be left partly open throughout the night. The atmosphere is kept moist, and a slight spraying overhead will promote clean and healthy growth, but this must be abandoned in winter, when the amount of damping down is also reduced. A sharp look-out must be kept for insect foes, particularly thrips, but by fumigating with XL All directly one is noticed, or every three weeks, no harm will be experienced in this direction.

A SELECTION OF COOL HOUSE ORCHIDS.

Premier honours, of course, will be awarded to the beautiful Odontoglossum crispum, which should be grown in quantity, and from the frequent importations good bargains are sometimes obtained, or semi-established plants can be bought from the leading nurserymen. Other useful members of this genus embrace O. Pescatorei, O. Hallii, O. luteo-purpureum, O. harryanum, O. Edwardii, O. cirrhosum, O. andersonianum, O. nævium, O. wilckeanum, O. ardentissimum and a host of popular hybrids. Then we have Disa grandiflora (known as the "Pride of Table Mountain"), D. Luna and the quaint Masdevallias, Lycastes and Anguloas, while the brilliant Sophronitis grandiflora and Cattleya citrina, with its fragrant yellow flowers, may be suspended from the roof by the side of the Chimæra section

A FROND OF THE QUEEN OF FILMY FERNS TODEA SUPERBA.

(*See page 228.*)

of Masdevallia. Some of the Cymbidiums, such as lowianum and tracyanum, are suitable for the cool house, and two bright Orchids that would form a pleasing contrast with the crispums are Ada aurantiaca and Epidendrum vitellinum. The cool division would hardly be complete without one of the Slipper family, and Cypripediums insigne Sanderæ and Harefield Hall are two of the best, while with a few Oncidiums, such as O. concolor, O. superbiens and O. macranthum, a fairly representative collection could be made. SENTINEL.

THE FERN GARDEN.

THE FILMY FERNS.

ALTHOUGH the many beautiful Filmy Ferns known to-day cannot be regarded as suitable for cultivation in many gardens, there are numerous instances where they could very well be accommodated, and their delicate, refined beauty would not fail to appeal to the most fastidious tastes. The popular name of Filmy Ferns is derived from the fact that, during the growing season, the fronds are usually covered with a film of moisture, without which protection the delicate tissues would quickly perish.

The family is not a very large one, the three principal genera being Hymenophyllum, Trichomanes and Todea. There are, however, a great many species and varieties, the majority being natives of New Zealand and Australia. In the United Kingdom we have representatives of the two first-named families, the most beautiful of all the British Ferns being Trichomanes radicans, or the Killarney Fern, a plant that is, unfortunately, becoming rarer every day. Of Hymenophyllums we have the Tunbridge Filmy Fern, H. tunbridgense, and the one-sided Filmy Fern, H. unilaterale. Of the Killarney Fern there are a number of beautiful varieties, but none surpasses the type for refinement. In a natural state the Filmy Ferns are usually found growing in dark mountain recesses close by running water, and in such a position that their fronds are kept continually moist by the spray caused by the water dashing on the rocks.

ONE OF THE SMALLEST FILMY FERNS: HYMENOPHYLLUM CHILOENSE. (*Natural size.*)

To grow these beautiful Ferns in this country it is usually necessary to provide them with a glass case or cases in a cool greenhouse, all that the majority require being sufficient protection during the winter months to keep away frost; the cooler they are during the summer the better. In some instances, where the plants are grown on a large scale, somewhat elaborate preparations ar made for their reception. One of the mos charming sights that the writer has ever seen wa at Messrs. Backhouse and Son's York nurseries where an underground fernery is almost devote to Filmy Ferns. Here the plants line the dam walls, ramble over miniature precipices and hid up nooks and crannies in a manner that is i every way pleasing, subdued light reaching the through overhead windows of thick, dull glas At Kew the Filmy Ferns are accommodated in small house, with glass cases on iron and slat stages along each side of the path, water bein laid on so that it can be made to trickle betwee the sandstone rocks as frequently as required— usually three or four times during the day in th summer. Where only a few plants are to b grown, a heavily shaded glass case in the green house, or even a cold frame, will suit them ver well.

For cultural purposes the Filmy Ferns may b roughly divided into two groups, viz., thos which have a decided rhizome or creeping ste and those which have not, the former being b far the most numerous. The two Hymenophy lums illustrated are small representatives of th rhizomatous section; and the queen of the whol race, Todea superba, a frond of which is illus trated, represents the other and deeper-rootin section. The creeping plants delight to sprea their stems over damp, cool sandstone or old Tre Fern stems, and the others are best plante between chunks of the same material. For thes deep-rooting plants, soil composed of peat, piece of sandstone and sphagnum moss answers ver well, this to be used in a rather rough state. A thin layer of the same mixture, chopped fin may also be placed over the rocks for the creepin plants, and this will be of considerable benef when they are once established.

Routine work consists of heavy shading i bright weather, frequently pouring water amon the rocks, not on the fronds, and, above al keeping a cool temperature during the summe months. Of course, any fronds that show sign of decay must be cut off, but in doing this car must be taken to avoid disturbing the root Although these plants are, perhaps, a little mor trouble to cultivate successfully than many o the more showy subjects that find so much favou to-day, this ought not to deter an enthusiasti gardener from attempting to grow them.

Of the plants illustrated, Todea superba is native of New Zealand. It forms symmetric plants of great beauty and is quite a regal Fer Hymenophyllum chiloense is a native of the Is of Chiloe, and H. fucoides is found wild i Tropical America. F. W. H.

AN ELEGANT FILMY FERN: HYMENOPHYLLUM FUCOIDES. (*Slightly reduced.*)

THREE POPULAR SWEET PEAS.

Primrose. Mrs. Collier
Carmine. John Ingman
Maroon. Black Knight

TREES AND SHRUBS.

A BEAUTIFUL FLOWERING CHERRY.

THE many forms of Prunus are now contributing largely to the floral display of our shrubberies, and one worthy of especial mention is P. subhirtella, a species from Japan. This Cherry evidently flowers with the greatest profusion, judging by a young tree we have here of comparatively recent introduction. Its season is a trifle later than the well-known Prunus Pissardii; the flowers are delicate shell pink in colour, and in size much about the same as the species just named. The flowers are produced well in advance of the leaves, which considerably enhances its value, and are for the most part produced in threes and show a tendency to grow downwards. The tree is of particularly striking upright growth; it is certainly one of the most conspicuous of the class that I have met with.

Elstree. E. BECKETT.

BERBERIS DARWINII.

THIS Chilian Barberry is one of our most beautiful flowering evergreens when in full blossom, which is usually about the end of April. It is a well-known plant and easily recognised, for its short, broad leaves make it quite distinct from any other species. Its flowers are extremely showy, for they are usually orange in colour and are borne in short racemes. The colour, however, varies somewhat, for forms are occasionally met with which have comparatively pale blossoms, while the blooms of others have almost a scarlet tinge. Though its average height is from 6 feet to 8 feet, specimens are occasionally noted upwards of 12 feet high, while the writer once measured a plant, which had been drawn up in a shrubbery among other shrubs and small trees, which had attained a height of 18 feet. B. Darwinii is suitable for planting in groups in shrubberies or in the open ground, while, with a little attention to pruning when in a young state, it may be formed into a shapely bush. It has perhaps attained most notoriety through being one of the parents of B. stenophylla, which, if a census of the best shrubs were taken, would find a place among the first twelve. A variety called nana is in cultivation, but it is of inferior merit to the type, for it blossoms less freely. As an evergreen, however, it is worth growing. The species may be easily increased by means of seeds, which are enclosed in purple, pulpy fruits and ripen freely towards the middle of July.

SKIMMIA JAPONICA.

THE various species of Skimmia are useful as evergreen shrubs, while they are also worthy of notice as flowering plants, and some are well worth growing for the sake of their ornamental fruits. The species under notice is a native of Japan, and it grows from 2 feet to 3 feet in height, forming a dense, spreading bush with handsome oblong leaves, white flowers and red berries. The flowers are borne in spring in upright inflorescences and are fragrant. Unfortunately, male and female flowers are borne on different plants, so that, in the absence of plants of both sexes being grown, there is no chance of fruit being perfected, which is a great loss, for the bright-coloured berries ripen during autumn and remain on the plants all the winter. As a rule, it is advisable to plant one male example to about six females, and in purchasing plants it should be ascertained as to whether both sexes are present. Some commercial growers make a practice of growing plants in pots for the sake of the fruits. In such cases a large number of females are potted and placed in a light, airy greenhouse. A few male plants are placed in the same structure, and pollination is effected artificially with the aid of a fine brush. Although cuttings may be rooted, it is more satisfactory in some cases to raise plants from seeds and select the sexes when they flower, for such plants are usually more vigorous than those raised from cuttings. By depending on cuttings, however, it is possible to raise the kind required without having to wait for flowering to make a selection. It is a pity that the Skimmias are not more grown, owing to the brilliant red of their flowers. They are a great success in Ireland, but wherever they are, there is something remarkably distinct, not only in foliage, but in the ruddy colouring of the berries. D.

A ROCK GARDEN AT CROWBOROUGH. (*See page 227.*)

THE ROSE GARDEN.

MOSS ROSES ON WALLS.

VERY rarely do we find these charming Roses growing against walls, yet some varieties are peculiarly suitable for this purpose, and they present a delightful effect when in full bloom. The old crimson Moss has been known to cover a wall fully 12 feet high, and Baron de Wassanaer would make a similar growth. Little Gem produces long, semi-climbing growths, which are most charmingly arrayed with the very pretty little buds and blooms of a light crimson colour. Comtesse de Murinais would be a good blush white, and Cumberland Belle is a climbing sort with bright silvery rose-coloured flowers. The Crested Moss would be a charming kind with its large, quaintly mossed blooms of rose colour. Of course, these are not perpetual flowering, and should not be planted to the detriment of perpetual-flowering kinds, but they are extremely hardy, and as such would be very serviceable in a bleak position. If possible, obtain these Roses on their own roots, as they succeed so much better than budded plants.

A GIANT-FLOWERED WICHURAIANA ROSE

I AM glad to see amateurs are now fully alive to the merits, from a decorative point of view, of the beautiful wichuraiana Roses. Mr. Walsh of Woods Hole, America, has added to his popular achievements as the raiser of Hiawatha and Lady Gay by introducing a veritable giant-flowered variety named Milky Way. Its snow white blooms are mostly single, but occasionally there are two rows of petals, and the flower is 2½ inches across. The simple beauty of its large flowers will be much enhanced when one obtains a really good specimen plant, and no one should miss an opportunity of adding Milky Way to their collection. We have now several large-flowered single forms; first, the well-known and popular favourite, Jersey Beauty; then the ever-charming Joseph Billiard, with its delightful carmine rose blooms heavily shaded at the base of the petals with golden yellow. Ariel will be another favourite when Messrs. Paul and Son, its raisers, send it out; it is something in the way of Joseph Billiard, but I think quite distinct. Then there is Diabola, also occasionally semi-double, which has blackish purple blooms which are in strong contrast to the golden stamens and white base of the petals.

A BRILLIANT-COLOURED PILLAR ROSE.

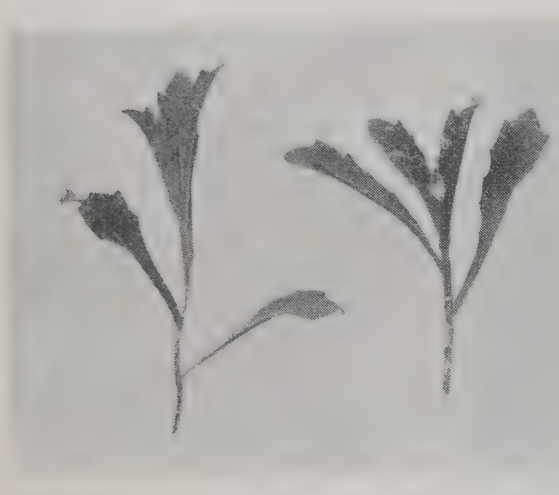
A BEAUTIFUL old Rose, Gloire des Rosomanes, is not seen so much as it deserves to be. Perhaps it has been somewhat eclipsed by Grüss an Teplitz; but there is in its bright carmine crimson clusters a most attractive colour, especially when it grows freely, as it will do if planted in good prepared stations. I have known this Rose to make fully 7 feet of growth in one season, so that for pillars it is a great boon, especially when it is remembered how good it is in autumn. P.

GARDENING FOR BEGINNERS.

INCREASING THE DOUBLE-FLOWERED ROCK-CRESS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—The earliest Potatoes will now or shortly be showing through the soil, and, as we cannot be regarded as free from frosts until the end of the third week in May, steps must be taken to protect the plants should a cold spell manifest itself. Some growers draw the soil well up round the



1.—CUTTINGS OF THE DOUBLE ARABIS OR ROCK-CRESS. ON THE LEFT THE SHOOT IS SHOWN AS TAKEN FROM THE PLANT, AND ON THE RIGHT THE CUTTING IS SHOWN READY FOR PLANTING.

young shoots, and where it is naturally of a rather sandy and friable nature, this answers very well and has the advantage of being permanent and tidy. In many instances, however, such a course is not practicable, and recourse must be had to old fish-netting put on double thickness and supported by forked sticks just clear of the plants, or old Bracken or other light material may be employed. Should the latter be used, some twiggy branches must be thrust into the soil at short intervals to prevent the material being blown away. The early and second-early Peas will need supports, and nothing is better for the purpose than Pea-sticks. These should have been prepared as advised some time ago. Do not place them too thickly, and keep the tops well open. They must be thrust very firmly into the soil. It always pays to support even the dwarfest varieties of Peas, as a better crop is ensured and the flavour is not impaired by the pods coming into contact with the soil.

Flower Garden.—Where not already done, no time should be lost in planting out the early flowering Chrysanthemums. The method that I adopt is as follows: A plot in the vegetable garden where the soil is rather cool is reserved for the Chrysanthemums, and these are planted out in rows 2 feet apart and from 15 inches to 18 inches asunder in the rows, according to the habit of the variety. Then in the autumn, just when the flower-buds are swelling nicely, the plants are carefully lifted with good balls of soil and transferred to where they are required to flower. This method does away with the necessity for having the plants in the flower borders and beds during their growing and non-flowering period. Doubtless most of the young plants will have had their points pinched out before now; but if any have not been done, they should have attention in this respect as soon as they are fully established in their outdoor quarters, usually a week or ten days after planting.

Greenhouse and Frames.—Work in this department will consist for the most part of careful watering, shading, fumigating and ventilating. Young plants of Gloxinias, Begonias, Streptocarpuses and similar plants that were pricked off singly into boxes a few weeks ago will now be ready for potting into 2½-inch pots. These must be clean and well drained. Suitable soil for the plants named above consists of good loam two parts, coarse peat or leaf-soil one part, and silver sand half a part, the whole to be passed through an inch-meshed sieve. If a few pieces of charcoal can be added to the soil, so much the better. Bedding plants, such as Asters, Stocks, Zinnias and Geraniums, in frames must be given the fullest possible ventilation now, removing the lights entirely on fine bright days. This will induce sturdy, slow growth, and the plants will not experience a serious check when planted out in the open.

Fruit Garden.—Peaches and Nectarines on walls will need disbudding now, and the work must be done gradually so that a severe check is not given to the trees. The subsequent aim is to leave one or two shoots at the base of the young last year's growths that will bear the crop this year, and one near the apex of the shoot to carry on the work of sap circulation. Commence the disbudding by removing at first all those shoots that are growing straight out from the wall; then go over the trees every four or five days until the whole that it is desired to remove have been taken away. Wherever possible, the beginner should get someone experienced in the work to give a practical lesson or two, as the task is then very much simplified. A. A.

HOW TO INCREASE THE DOUBLE-FLOWERED ROCK-CRESS.

AMONG the many beautiful and easily grown plants that flower in spring, none has established itself more quickly and firmly in popular favour than the double-flowered Rock-Cress, Arabis albida flore-pleno. Compared with the single-flowered type the double-blossomed variety is a great improvement in every respect. Not only do the flowers create a better effect when seen in a mass, but individually they are larger, of greater purity, owing probably to their density, and they are excellent for cutting, for which purpose, of course, the type is useless. Although known by the popular name of the double-flowered Rock-Cress, this plant will grow well in other places than the rockery; indeed, unless the rockery is a large one, the long racemes of double flowers are apt to appear rather heavy. It is for filling large beds, for forming broad edges to a walk, or for creating large masses of white in the herbaceous border that this plant excels. Happily, it is not very particular as regards soil, practically any garden plot that has been well dug suiting it splendidly.

Where beginners have such an excellent all-round plant as the double-flowered Arabis undoubtedly is, they will naturally wish to know how to increase it and so perpetuate it for many generations. Here, again, the plant asserts its good nature, and it may be readily increased by means of cuttings or divisions of the old plants. Both operations may be performed as soon as the flowers have faded. Cuttings, though rather more difficult to manage, usually give better results than divisions, and for this reason these are dealt with first.

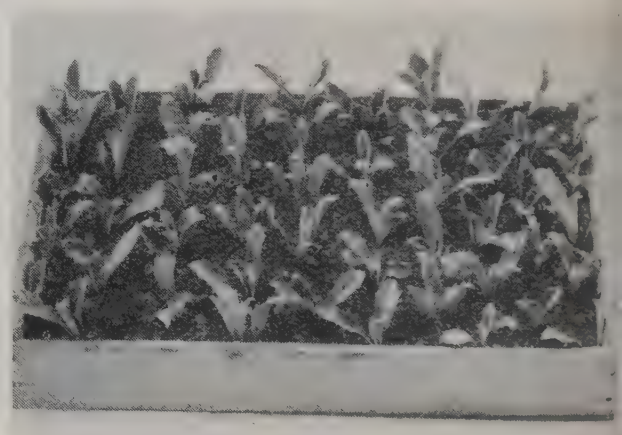
If an old plant is examined when the flowers have faded, a number of young shoots similar to that shown on the left of Fig. 1 will be found. These, if taken off, will make excellent cuttings. They should be prepared similar to that shown on the right of Fig. 1. A close inspection of this will reveal the fact that it has been cut through close beneath a joint, and that the lower leaves have been removed to facilitate planting. When prepared in this way, the cuttings may either be planted in sandy soil in a shaded position outdoors or in boxes of sandy soil as shown in Fig. 2, these being placed in a cold frame and kept shaded until the cuttings have rooted. The latter method ensures the greatest success, and should be adopted by beginners where possible. The cuttings may be dibbled in 3 inches apart and about an inch deep, taking care to make the soil firm at the base.

After the cuttings in the boxes have rooted they may be planted out 9 inches apart in beds, and by the autumn they will have formed little tufts suitable for planting in their flowering quarters.

To divide old plants they should be lifted with a fork and pulled to pieces with the hands. It will be found that the work is very simple, and not much difficulty will be experienced in securing a number of good-sized pieces, each with a few small roots adhering. These should be planted 1 foot apart in rows 15 inches asunder, and well watered during sunny weather until fully established. By the autumn they will be suitable for their flowering positions, and will be larger than the plants secured from cuttings. Fig. 3 shows a good clump of this plant in flower. H.

EARTHING-UP POTATOES.

EARTHING-UP, when properly done, increases the yield of the Potatoes. The mere fact that soil is drawn up to the plants does not mean that there will be much increase in the number of the tubers at each root, but it does mean increased size of individual tubers. I am referring to the early earthing of the plants, as late earthing may have a bad effect on them, as I will presently show. Some varieties produce their new tubers very near the stems and surface of the soil. I do not know of any variety that had this



2.—CUTTINGS OF THE DOUBLE ARABIS NEATLY AND FIRMLY PLANTED IN A SHALLOW BOX FILLED WITH SANDY SOIL.

peculiarity more marked than the old Kerry Blue, a sort that is but rarely met with in these days, though as regards good cropping qualities and flavour there is not one of the newer varieties equal it. In drawing up the soil to the plants, some of it should be allowed to fall between the stems; the result of this will be to cause them to spread out a little, but rain-water will not trickle down by the sides of the stems, as is often the case where the Potatoes are left unearthed.

Early earthing-up means early ripening of new tubers. The latter always grow more freely on

3 —A WELL-FLOWERED PLANT OF THE DOUBLE ARABIS.

the south side of the plant than on the north, and where the rows run from due east to west more new soil must be drawn up to the plants on the south side than on the other; where the rows run north and south the soil drawn up must be equal on both sides of each row.

Now, when a Potato plant attains a certain age, the runners on which the young tubers form spread out freely in nearly all directions, but chiefly towards the sun. If, therefore, the work of earthing-up is unduly delayed, there will be a great risk of destroying many runners and tiny tubers on them. When early earthing is done the runners spread out, but are confined to the ridges, and mostly on the side next the sun. The tubers are thus well raised above the ground-level, and are not so liable to disease as those that are earthed later.

FILLING FLOWER-BEDS.

THOSE who are inexperienced in the work of bedding-out are always willing to accept hints which, when acted upon, will result in fine, effective displays of flowers. I know it to be a fact that many persons study how to put into a small bed a number of varieties or kinds of plants, thinking that the more variety they have the better the effect will be. This is a great mistake. Simple arrangements are always more satisfactory than complicated ones. I will give an example. A bed 5 feet in diameter, filled with Zonal Pelargonium Paul Crampel and Centaurea candidissima, the latter as an edging, would have a far more pleasing effect than would be the case if Pelargoniums, Petunias, Heliotropes, Calceolarias, Pyrethrums, Begonias and Lobelias were crowded into it. Very large beds may with advantage be filled with several distinct kinds or varieties of plants if they are kept separate so as to form distinct features of such beds. Very beautiful beds are those that have a groundwork of one kind of low-growing plant, with dot plants at suitable distances so as to show up individually and a neat edging that will form a contrast.

Every kind of plant used should be put in so that by the early part of July the whole of the border will be well covered with foliage and flowers without causing undue crowding. The last hint that I will give here is to take proper time wherein to do the work, so that all plants will be carefully put in without disturbing the roots more than can possibly be helped, and thus avoid an unnecessary check, as many bedding-out plants are ruthlessly treated at this season owing, chiefly, to press of other work. SHAMROCK.

PERRY'S VARIETY OF THE CANADIAN PHLOX.

THIS plant, Phlox canadense Laphamii Perry's variety, is a hardy herbaceous perennial growing about 18 inches high, and may easily be had flowering continuously from May till October. Phloxes are, without exception, popular plants, and here we have not only a good free-growing plant, but a decided acquisition to its class in colour. This is best described as a deep lavender blue, and the flowers are borne upon flattish heads supported by slender stems after the manner of Phlox Drummondii. The habit is all one can desire, branching freely in all directions.

Slugs eagerly devour this Phlox when it is growing in the open border; therefore it is best to pot rooted cuttings singly into 3-inch pots and grow them in a cold frame throughout late autumn and winter, planting them out in prepared soil whenever the weather admits of this work in spring; frequent pinching in the early stages of growth causes the plants to branch freely.

Any good garden soil will grow Phlox Laphamii, but like many more good garden plants it well repays liberal treatment. The ground should be well dug in autumn or some time previous to planting, adding a proportion of decayed farm manure and mixing it well with the soil, which must be lightly firmed at planting.

Groups of Phlox Laphamii are very effective when employed in the front of mixed borders. It also associates well with bedding plants. The colour of the flowers appears singularly rich when used against such brilliant members as scarlet Pelargoniums. It also forms a welcome addition to the cool greenhouse, for which purpose a few plants should be put into pots about 6 inches in diameter as the smaller pots become filled with roots. T. SMITH.

THE TOWN GARDEN.

AURICULAS.—At a recent meeting of the Royal Horticultural Society there was displayed a collection of show and alpine Auriculas which, by reason of its extent and the great variety it contained, might well be regarded as unique, while, judging from the interest the plants created among a large number of the visitors, there would appear no sort of doubt that these old-time favourites of the florist are regaining some of the hold they had on the affections of the people many years ago. To display the show varieties to perfection, a cold glass house or a well-ventilated frame is absolutely essential. This is not due to any lack of hardiness in the plants themselves, but rather to a desire to preserve all that is beautiful in the plants or their flowers when the exhibition day arrives. Those, therefore, of my readers who take keen interest in frame or cold-house plants should bear this section of the Auricula in mind, for in them may be discovered a fount of pleasure quite unknown before.

BORDER AURICULAS.—But while there is one section of the family for which glass protection is needed, there is another section possessing such perfect hardiness and freedom of flowering as to render them well-nigh unique among the early flowers of the year. These are known as border Auriculas, a name which is at once convenient and suggestive, if not even a little dictatorial so far as the position in which they may be grown is concerned. As a matter of fact, besides being well adapted to the border, they are also equally well suited to the rock garden, to massing in beds, or even to growing in window-boxes. Moreover, this section of the Auricula is so well fitted for growing in villa and suburban gardens that one cannot afford to overlook their merits at so seasonable a moment. In country cottage gardens we have seen them bordering the pathway between the wicket-gate and the house, the well-flowered tufts of a foot across appealing most strongly to flower-lovers generally.

HOW TO PROCEED.—The best way to obtain a stock of young plants is to secure seeds at once and sow them in pans or boxes of finely sifted sandy loam, covering the seeds very lightly with the soil mixture named. From seeds of a good strain it is possible to get quite a variety of colours in shades of red, violet, purple and the like. There are also border Auriculas with yellow flowers and others of a good pale blue, and as these are usually saved separately it will be best for my readers to ask for what they require. Here is what the veteran florist, Mr. Douglas, says of the alpine Auricula, which is but another name for those now referred to as border sorts, though there may be some of more refined beauty. After suggesting that groups of one variety should be planted in the rock garden, he says: "I planted a dozen small plants of one variety in such a position, and counted a hundred trusses upon the plants two years afterwards." Surely no greater testimony than this can be given or required.

GARDEN MINT.—Those of my readers who, having planted the roots of Mint in tufts or masses in the winter-time and experienced, as a result, a very inferior growth should now dig up some of the fresh young shoots to which root-fibres are attached and transplant them in well-prepared garden soil without delay. These young pieces will make excellent tufts by the end of the season, the plants being full of vigour into the bargain. Sage and Black and Lemon Thyme may also be transplanted.

HERBACEOUS LOBELIAS.—These have flowering stems 3 feet or 4 feet high, and produce, in late summer and autumn, spikes of scarlet flowers, some varieties, as Queen Victoria, having bronzy purple leafage. I know of no plant more effective for forming large groups in the border or even in a mixed bedding arrangement; hence I strongly recommend them to those requiring a very beautiful subject. E. H. JENKINS.

4 —A CLUMP OF PERRY'S VARIETY OF PHLOX CANADENSE LAPHAMII, A TALL-GROWING VARIETY OF THE POPULAR CANADIAN PHLOX.

THE KITCHEN GARDEN.

CAULIFLOWERS.

THE production of a good supply of Cauliflowers over as long a season as possible should be one of the aims of the vegetable gardener, for it matters not what other vegetable may be in season, the demand for this particular one when well grown, clean and fresh never ceases. During recent years much has been heard of the system of "Intensive Culture" known as French gardening, and one of the most important crops applicable to this mode of treatment is the subject of this note. For many years, however, it has been the practice in this country to produce this vegetable with the aid of glass, and by similar means excellent, well-appreciated produce may be obtained much in advance of outdoor supplies; in fact, with strict attention to details, a continuous supply may be obtained from April till the end of the year. It must be borne in mind, however, that to assist the grower in his attainments, only the varieties most suitable for the particular seasons must be grown. Much attention has been given in this direction during the past few years by our leading seedsmen of repute. Where the convenience is at hand and the necessary means are at one's disposal, the earliest supplies may be obtained by growing the plants throughout in pots.

CAULIFLOWERS IN POTS.

For this method of treatment a start must be made early in the New Year by sowing a small quantity of seed thinly in shallow, well-drained boxes, and raising in a gentle heat such as may be found in early forcing-houses at that time of the year. Under such conditions germination will rapidly take place, and it is then imperative to raise the box as close to the glass as possible so that the young plants may receive the maximum amount of light. As soon as the rough leaf is discernible, the plants must be transferred to other boxes containing a moderately light mixture of sifted loam and decayed leaf-mould. Prick the seedlings out about 3 inches apart, keep them well down in the soil and make them fairly firm. Continue to grow them on in a similar temperature as already advised, and when well rooted again shift them on into 3-inch pots. These should be well drained, and use a slightly rougher soil, which may contain a dusting of bone-meal. Pot firmly, and again as deeply as possible without burying the leaves. When the roots have penetrated freely to the edge of the pots, give them the final shift into 9-inch pots. Drain the pots well, but take up as little of the space as possible and use a rougher mixture, which should consist principally of loam with the addition of a third part of horse-manure. When potting avoid damaging the ball, and just cover the same and finish off about halfway up the pot. This will allow of a top-dressing at a later date. For a time a warm temperature will encourage good growth, when they must be gradually inured to cooler conditions and air admitted accordingly, and finally a sheltered position out of doors allotted them. Water must be given whenever necessary, and the plants further encouraged when root action is vigorous by applications of weak liquid manure and top-dressings. Excellent curds or heads are obtainable by this method, and two varieties especially adapted for the purpose are Snowball and Veitch's Forcing.

CULTIVATION IN FRAMES.

For early supplies another system much in vogue is to raise the seedlings in autumn and winter the plants in cold frames. For this kind of treatment I always make two sowings, one in the beginning and the second in the latter end of September, the last-named in a cold frame. Sow thinly and prick out the plants when quite small, allowing a distance of about 4 inches between them. To keep these in the best possible condition during the winter months, they must have all the light and air possible and any pretence at coddling them must be avoided, though protection from sharp frost must be given. For a warm sheltered position and placing under frames, hand-lights or cloches the strongest plants may be lifted early in March. Lift them with a good ball and plant with a trowel. The remainder should be lifted and planted out of doors in various positions to ensure a continuation, and planted at a distance of about 2 feet apart. For further succession make sowings at intervals from the end of January until the middle of April. The same free, uninterrupted treatment of growth should be given, never allowing the plants to suffer from lack of moisture or become overcrowded and drawn, always encouraging a sturdy, hardy growth.

PREPARATION OF THE GROUND.

This is an important item in the growth of the main and later crops. Select a piece of ground that has not previously grown any of the Brassica tribe for at least two years. This is essential, and no doubt does much to stimulate the growth and prevent clubbing in the plants. Deep tillage must be resorted to and the ground left to the vagaries of the weather. A surface-dressing of lime, if this is absent in the soil, will be beneficial, and will also destroy many noxious insect pests.

ATTENTION TO MAIN CROPS.

Frequent hoeings during hot and dry weather will do much to keep down weeds and also resist drought. Copious supplies of water are absorbed by the plants if this is given, as well as occasional doses of liquid manure-water. A good mulch should then be applied, and this will do much to keep moisture in the ground. In showery weather a dusting of artificial manure may be applied, also soot.

VARIETIES.

For autumn sowing, Magnum Bonum, Walcheren and Autumn Giant; and for successional sowings in the spring Early Giant is good for summer and early autumn cutting, and, later, Autumn Mammoth and Autumn Giant. There are, however, many excellent varieties catalogued by the various firms.

Elstree. E. BECKETT.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

PRIMROSES AND POLYANTHUSES FROM WARWICKSHIRE.

Mrs. Bruce, Cooderay, Lapworth, Warwickshire, sends some beautiful Polyanthuses and coloured Primroses which, of course, are just now at their best. The Polyanthuses are large and of beautiful colours, rich shades of yellow predominating. Among the Primroses were some good blue flowers, which Mrs. Bruce states were even richer in colour before sunny weather was experienced.

POLYANTHUSES FROM GUILDFORD.

Colonel Perreau, Flexford House, near Guildford, sends some beautiful flowers of Polyanthus. These embrace rich yellow and deep primrose colours, as well as white flowers with bright orange centres. The strain is a good one. Colonel Perreau writes: "As an old subscriber to THE GARDEN, I send these Pol anthuses for the Editor's table, and will be gl of his opinion whether they are a good strain otherwise."

MERTENSIA VIRGINICA FROM ENFIELD.

Mr. Amos Perry, Hardy Plant Farms, Enfiel sends flowers of Mertensia virginica and al of a beautiful old rose-coloured variety which describes as M. v. rubra. All the flowers of th variety are similar in colour to the few ros coloured ones that are usually found among t blue flowers of the type.

CESTRUM ELEGANS FROM SUSSEX.

Mr. J. Comber, Nymans Gardens, Handcros Sussex, sends some magnificent inflorescenc of that charming greenhouse climber, Cestru (Habrothamnus) elegans. These were very lar indeed, and the blossoms of an unusually ri colour. Mr. Comber evidently thoroughly unde stands the culture of this plant, which deserv to be more largely grown than it is at present.

SPRING FLOWERS FROM BLANDFORD.

Mr. J. Rogers, Langton Gardens, Blandfor sends a fine collection of spring flowers, all which are, undoubtedly, the result of goo cultivation. The Anemones and Primulas a particularly good. Mr. Rogers writes: "I a sending for your inspection some spring flower Primulas denticulata and cashmiriana are grow on a north border. We have a whole borde 50 yards long and 1 yard wide, of them. The have been in bloom now for the past six week and will continue for a long time. Thompso and Morgan of Ipswich supplied the seed. Th Pansies and Daisies are Dickson and Robinson strain. Of the Anemones we grow some thousand including mixed varieties. They are plante in succession so as to keep up a display until th summer. All kinds of spring bedding we mak a speciality of."

RHODODENDRONS FROM NORTH WALES.

Mr. Frank Owen, Rose Hill, Ruabon, send flowers of an early hybrid Rhododendron which w cannot identify. It is evidently a very usefu variety. Mr. Owen writes: "Enclosed you wi find a few Rhododendrons for your table; the have been a perfect show here for the last tw weeks. We have four plants growing, one each corner of the Rose garden, and looking lik four glowing fires. The habit is dwarf and trailing Can you give me the name of this variety Its colour is so pleasing and it is very early. I position is very exposed."

BEAUTIFUL BLUE PRIMROSES.

One of the purest in colour of the blue Prim roses that we have yet seen comes from Messrs Blackmore and Langdon, Twerton Hill Nursery Twerton-on-Avon, Bath. The flowers are as larg as those of our finest Primroses, and the colou is an intense violet blue, quite self, and withou anything approaching magenta. We commen this Primrose, which should be grown in shad spots in the garden or a moist ditch-side, an wherever the full strength of the flowers can b brought out.

BUNCH POLYANTHUSES.

Several beautiful forms of this type of Poly anthus have been sent to us this spring, and a exceptional interesting series has come from Mr F. Fairs, The Gardens, Mount Harry, Sevenoaks The colours are exceptionally pure, a rich yellow in particular, and for the border or flower-bed at this season nothing is more effective or mor fragrant than the Bunch Polyanthus, or Primrose It is a pleasure to notice the growing popularity of this race, which is one of the chief flowers fo grouping if the colours are decided and signs o deterioration, either through want of division o in the selection of the seedlings, are at once checked.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Pampas Grass untidy (*Pampas*).—The firing of untidy tufts of Pampas Grass, which in all cases must only be lightly done, is usually taken in hand when the worst of the winter has gone, and is only attempted in the case of old and much-exhausted examples. We confess that we are not in favour of firing these plants, the plan savouring too much of a species of barbaric vandalism that is best kept out of the garden. Not infrequently the true cause of the creation of rubbish among the plants is due to indifferent growth, which in turn is the outcome of bad soil or drainage, and with these things improved a much better result would be secured. Very old plants, however, that are full of rubbish and which it is desired to divide may be lifted and slightly burned to clean them before attempting their division.

Plants for dry wall (*L. M. Bedford*).—The only plants easily raised from seeds and suitable for the wall and the season to which you refer would be the Aubrietias, and it will depend upon the colour of your Tulips, if these are not far removed from the wall, as to what shade would be most suitable in these plants. The chief colours in the Aubrietias are shades of blue lilac, violet, mauve and red, though when raised from seeds the plants vary somewhat in colour. Yellow or crimson Wallflowers would bloom at the required time if the place and position are suitable for the plants. The plants raised from seeds sown now would not, of course, flower till the spring of 1911.

Alyssum or Kœniga (*Edge*).—This plant is known as Alyssum maritimum or Sweet Alyssum, though it is frequently catalogued as Kœniga maritima, which is a synonymous term. Strictly speaking, the plant is perennial, and indeed is so if grown near the coast or on old walls and ruins. It is almost invariably treated and regarded, however, as an annual, the seeds being thinly sown in the position in which it is intended the plants should flower. The typical species grows about a foot high; the very dwarf one, which is probably the one you require, is only 1 inch or 2 inches high and is very compact. This is known by the varietal name of nanum, or Little Gem, and by either of these names the dwarf form is obtainable from any seedsman. You cannot do better than treat it as an annual, thinly sowing the seeds where the plants are to flower. If you raise the seedlings with a view to transplanting them, this operation must be performed while the plants are very young.

TREES AND SHRUBS.

Planting trees in park (*Arthur H. Ryder*).—The general idea which you have adopted for planting the new portion of your park with trees is a good one, and ought to produce an ornamental and natural effect. We should, however, advise you to plant a few Oaks in the new part and carry some of your evergreen trees into the older part, so that one style of planting is carried naturally into the other. The dotting about of the Silver Birches is a good idea, for they will help to give a furnished appearance until something else can grow up. A moderately large clump of trees here and there would be effective with small clumps and single trees as you suggest; but moderately wide, open spaces should be left occasionally for grass and for the groups of Gorse and Heather which you suggest. Hollies might well be used with Gorse and Heather in small groups or as dot plants, while Thorns dotted about here and there in park-land are effective. Larch is also a good tree to include, for it is of graceful outline and wonderfully effective in spring when first breaking into leaf. A mixture of Douglas Fir is often preferred to all Pine for effect, on account of its brighter green leaves. With either Pine or Douglas Fir, however, the Birch groups excellently, while a patch of Mountain Ash here and there is attended with effective results, the fruits being very bright during late summer. The introduction of patches of Bracken here and there would also prove an attraction and assist in providing cover for game.

Shrubs for beds (*Herbert S. Lacey*).—You do not say whether you wish to plant your beds with a mixture of shrubs or whether you wish to plant one kind only in each bed. Assuming that you prefer the former method in order to have a greater diversity of plants, we recommend that you should plant evergreen and deciduous kinds mixed. For the centre bed the following subjects are desirable: Deciduous—Spiræa arguta, 3 feet to 4 feet, white, April; Prunus japonica fl.-pl., 3 feet to 4 feet, white, May; Berberis Thunbergii, 3 feet, yellow, April; Ribes sanguineum splendens, 4 feet, deep red, April; Cydonia Maulei, 2 feet, red, April; and Cytisus purpureus, 1½ feet, purple, May. Evergreen—Olearia Haastii, 3 feet, white, July; Rhododendron odoratum, or R. azaleoides as it is frequently called, 3 feet, lilac, June; Erica mediterranea hybrida, 1 foot, pink, winter and spring; Erica carnea, 6 inches, red, spring; and Osmanthus ilicifolius, 3 feet, flowers white, of little value. The small beds may be planted with Diervilla Eva Rathke, 2 feet to 3 feet, red, summer, deciduous; Philadelphus Lemoinei, 3 feet, white, June, deciduous; Hypericum moserianum, 1 foot, yellow, evergreen; Rhododendron racemosum, 2 feet, pink, evergreen; and Dabœcia polifolia, 1 foot, reddish purple, evergreen. The small beds might be made to look very nice if planted entirely with Heaths, Erica mediterranea and E. carnea being planted in one and E. multiflora in the other. Should you prefer a single shrub in each of the small beds, however, Diervilla Eva Rathke and Philadelphus Lemoinei are suitable.

THE GREENHOUSE.

Iris and Verbenas (*Regular Reader*).—The name of the Iris of which you enclose a flower is Iris japonica, known also as I. chinensis and I. fimbriata. Though hardy in particularly favoured spots, it must, throughout the greater part of the country, be regarded as a greenhouse plant; indeed, the treatment you mention is quite correct. As the Verbenas in your box now need transplanting, they must either be potted singly or pricked off into other boxes, giving the young plants room to grow. You will understand that it is as yet much too early to put them out of doors; indeed, the end of May will be a very suitable time. When it is intended to plant them in the open ground, the bed or border should be well dug, a reasonable amount of manure being incorporated with the soil. A distance of 9 inches between the plants is very suitable. Whether you pot off the young plants or prick them out into other boxes, you may, as soon as they take hold of the new soil, just pinch out the growing point in order to encourage a bushy habit. One stopping should suffice; in fact, many plants if in a light, airy structure will break out naturally without being stopped at all.

Information about Astilbes (*S. F. C.*).—To answer your letter in a satisfactory manner is rendered very difficult by the fact that you do not give us any idea as to the treatment the plants have received. The appearance of the little piece of flower-spike would suggest that it had been caught by the frost, as it would be affected thereby exactly as yours has been. If not, the roots may have been very dry and caused the flower-heads to droop; then the sun shining on the exposed portion, in conjunction with the flagging, would cause damage to the tender stem just in the spot where yours shows it. It is, however, quite impossible to state definitely the cause of the trouble. The cause of your plant throwing up but few blooms is starvation, as liberal treatment is very necessary to success. We should advise you to repot your plants, as soon as they have done flowering, in a mixture of loam and well-decayed manure. They must, after this, be kept under glass till they can be placed outside without danger to the tender foliage. Throughout the summer they are best plunged out of doors, as copious supplies of water are needed at that season, and as the pots get well furnished with roots liquid manure about every fortnight will be helpful. The object must be to encourage good, stout crowns or eyes, as on these alone can one depend for a satisfactory floral display. Astilbes can be bought so cheaply in the autumn that many cultivators prefer to obtain fresh clumps annually instead of keeping them throughout the summer.

Balsams damping off (*J. A. T.*)—We presume that your question refers to Balsams. If so, the damping off was, no doubt, caused by too close an atmosphere and an excess of moisture at the roots. Even then the decay would, doubtless, have been checked had the young plants been potted off singly, burying the naked stem nearly up to the base of the seed leaves. To succeed in the culture of Balsams the seed should be sown in March in a gentle heat. Under these conditions the young plants will soon make their appearance, and directly the true leaves show themselves between the cotyledons they must be potted off singly into small pots. Returned to a gentle heat, the plants will soon be furnished with roots, and directly this happens they must be shifted into pots 6 inches in diameter. They must in all stages be kept as near the glass as possible in a good light position, in order to prevent them becoming drawn. For Balsams the soil must be of an open nature, a very suitable compost being formed of two-thirds fibrous loam to one-third well-decomposed cow-manure and a sprinkling of rough silver sand. In potting, the soil must not be pressed down firmly, and the drainage should be ample. The plants may be allowed to flower in 6-inch pots, or they may be shifted into larger ones, say, 9 inches in diameter. In either case, when the plants are furnished with roots weak manure-water may be given twice a week.

ROSE GARDEN.

Cloth of Gold producing sportive growth (*R. M. M.*).—There are numbers of instances where Roses have suddenly thrown out a sportive growth, producing either a distinctly coloured bloom or an extra vigorous growth; but in all the cases we can recall the sportive growth bore a resemblance to the parent kind. As you are so positive your plant of Cloth of Gold has produced a growth of quite a different character, we can only say it is very remarkable, and although it might throw some light on the matter if you sent a photograph of the plant as you suggest, we advise you to consult some local horticulturist, especially one in the trade, who would examine this plant and, if desired, propagate from the growth. A very helpful book to study would be "Physiology of Plants," by Dr. Paul Soraner.

Rose Cheshunt Hybrid (*R. M. M.*).—It was quite an error in describing this Rose as a Hybrid Perpetual on page 183 of our issue of April 9. It should have read "Hybrid Tea," for it was the first Hybrid Tea raised, having been produced from Mme. de Tartas (Tea-scented) and Prince C. de Rohan (H.P.) in the year 1873.

Growth on stem of Rose (*F. W. J.*).—The canker is due to the attack of the fungus Coniothyrium fuchelianum on the Rose stem. It usually starts upon the young twigs, attacking them through any small wound, such as might be made by one twig rubbing against another or pricking another, or by careless pruning or even by too vigorous growth induced by over-manuring. The first indication of the disease is the appearance of red spots round wounds. All such pieces should be cut out and burnt so as to destroy the spores.

FRUIT GARDEN.

Apple shoots for inspection (*F. C. M.*)—The shoots are attacked by the fungus Monilia fructigena, which is breaking through the diseased spots now in greyish white patches. The diseased shoots should be removed and the bush sprayed with half-strength Bordeaux mixture. Not only are the shoots attacked by this fungus, but fruits and flowers, and it causes the too-well-known "brown rot" of fruit.

Cardinal Nectarine fruit splitting and turning brown (*Houghton*). Without seeing a sample of the injured fruit it is difficult to say what has caused the injury. The skin of this variety of Nectarine is remarkably thin and easily injured. It may be the result of a fungoid attack destroying in parts the outer skin of the fruit; hence the cracking, as the diseased skin refuses to swell with the swelling fruit. It may be the result of scorching

by bright gleams of sunshine striking on the fruit while it was damp. The same indications would follow injury from this cause as the other, and would also be the cause of the skin turning brown should the damage have been the result of a fungus. The trees should be at once dredged with flowers of sulphur, which should be left on for twenty-four hours, the trees being shaded and the house kept close in the meantime. The fruits, although injured, may swell to a good size and ripen properly, but the damage to its appearance cannot, of course, be undone.

KITCHEN GARDEN.

Newly made Asparagus-bed (*Wyandotte*).—You say the ground had been well manured before the one year old roots were planted. It will be some weeks hence before these roots can take real hold of the soil, and as this soil is already well enriched with manure, no more will be needed this summer excepting that towards the middle of June, when the young plants will have attained a fair height, they will be much benefited by a layer of rotten manure being placed on the surface of the bed over the roots of the plants 3 inches deep. This will help to keep the young roots moist, and the ammonia washed down by rain to the roots from the manure will nourish and greatly help the young plants. There will be nothing more to do to the beds during summer excepting that they should be scrupulously kept clear of weeds by hoeing or weeding. The covering of manure may be left on the beds all the winter, the grass being cut as soon as it is dead ripe, but not a day before. Towards the end of March next year a dressing of nitrate of soda should be applied to the surface of the bed—one handful to the square yard. It should be crushed fine before being applied. Fork it lightly into the ground not more than 2 inches deep, and cover the bed over with rotten manure to the depth of 3 inches. Then line out the alley, or path, by the side of the bed in a neat and workmanlike manner, afterwards throwing the loose soil from the path over the bed and the manure on its surface to the depth of 3 inches. The plants will then be ready to go rejoicing on their course of growth through the summer without any further attention than keeping free of weeds and giving them an occasional watering in case the weather should prove exceptionally hot and dry. The culture to follow in succeeding years will be the same, excepting when the bed gets well established it should receive a dressing of manure 4 inches deep early in November, so that the winter rains may wash the goodness of the manure down to the roots. A little grass may be cut from your bed in 1912 if all has gone well with it; but the less you cut then the better it will be for the future well-doing of your bed. It should be in full bearing in 1913. Asparagus cutting should cease from June 15 to 22 in the South and ten days or a fortnight later in the North.

Supporting Peas and Beans (*Market Gardener*).—Any question as to the quantity of branched sticks needed to support a row of Peas 100 feet long must be dependent for reply on the height of the Peas to be staked and the size of the bundles of sticks. Peas range in height from 2 feet to 6 feet. For the former an ordinary good bundle may, cut down to short lengths, stake 20 feet run, but tall ones may support only 10 feet run or less. It is, without knowing the height of the Peas and the size of the bundles of sticks, not possible to say clearer. With respect to Beans, by which, of course, you mean Runner Beans, these need stout, tall stakes from 10 inches to 12 inches apart along each side. Thus you would need 200 such tall stakes for a good row 100 feet long. In that case very much depends on whether the Beans are thickly or thinly sown. Wire-netting, if of sufficient breadth to stand on edge and of sufficient height for the Peas, if run along on each side of a row and here and there kept erect by being tied to stout stakes, does very well, but the mesh should be fully 4 inches broad. We fear 2-inch mesh is rather too small.

MISCELLANEOUS.

Cucumber and Violet leaves spotted (*S. Donnan*).—Insufficient details are given. The spotting of the foliage is due to some cultural error, and not to the attack of any fungus or insect pest. Either too strong liquid manure has been used or unsuitable water for spraying, or fumigation has been done with a too strong or with an unsuitable substance.

Names of plants.—*Mrs. H. J. Bailey.*—Anemone apennina, A. blanda (dark), A. ranunculoides and Saxifraga cæspitosa.——*A. M. X.*—Narcissus minor minimus. ——*J. M., Dumbarton.*—Rubus spectabilis. ——*T. F. Bright.*—1, Prunus triloba; 2, Maxillaria species, impossible to identify from such a scrap.——*E. M. L.*—Corydalis tuberosa alba.——*C. C.*—Rubus speciosus.——*Orchard.*—Pale flower, Duchess of Westminster; yellow, Barri conspicuus.——*Jonas.*—The Anemone is the Apennine Windflower (A. apennina) and the other flower is Ornithogalum nutans.

SOCIETIES.

KENT, SURREY AND SUSSEX DAFFODIL SHOW.

THE annual exhibition was held in the Great Hall, Tunbridge Wells, on the 20th ult. A fair attendance marked the opening of the show. It is, however, to be regretted that interest—especially local—is so lacking, not only in respect to subscriptions, but representation of the trade. Omitting the lack of trade exhibits, those shown in the competitive classes were generally of good merit, equalling, if not exceeding, those of previous years and commanding a large amount of praise and admiration.

The silver cup offered for a collection of Daffodils consisting of thirteen varieties of each of the three groups (Magni, Medio and Parvi Coronati) attracted three competitors, each staging an exhibit so even in quality, form and excellence as to promote keen rivalry. The award, however, fell to Mr. J. A. Nix, whose collection contained, among others, beautiful specimens of Lady Margaret Boscawen, White Lady, Rev. D. R. Williamson, Duke of Bedford, Fair Maiden, King Alfred, Weardale Perfection, Incognita, Ellen Barr, Frailty, Almira, Red Chief, Northern Light, Seagull, Mme. de Graaff, &c. Mr. C. G. A. Nix was second with White Lady, Duke of Bedford, Glory of Leiden, Lady Margaret Boscawen, Gloria Mundi, Seagull, Hamlet, Weardale Perfection, Dante, John Bain, Homer, Chaucer, Fair Maiden, &c. Mr. F. Herbert Chapman was third. In his collection there were several new seedlings, notably Lustre (triandrus hybrid) and Minstrel (triandrus hybrid). White Slave, Barcarolle, Weardale Perfection, Evangeline and Ariadne were also finely shown.

For twelve distinct varieties of Daffodils representing the three groups as above, the Rev. G. P. Haydon was first with Duke of Bedford, Katherine Spurrell, Chaucer, White Queen, Biarritz, Cleopatra, &c. Mr. W. C. Bull was second, showing White Lady, Lady Margaret Boscawen, Barri conspicuus, Almira, Weardale Perfection and Sir Watkin in good form. Miss A. L. Nix was third.

For twelve distinct varieties of true trumpet Daffodils, the Rev. G. P. Haydon was first, showing Peter Barr, Pearl of Kent, Cleopatra, Lord Roberts, J. B. M. Camm, Monarch and Weardale Perfection. Miss A. L. Nix was second with Admiral Makaroff, Weardale Perfection, Mme. Plemp, Empress, J. B. M. Camm and Santa Maria.

For six distinct single varieties, true trumpet Daffodils, Mr. F. Barchard was first with Emperor, Horsfieldii, Mme. de Graaff and M. J. Berkeley in good form, followed by Mr. W. C. Bull and Mr. E. M. Eversfield.

For twelve distinct single varieties, chalice-cupped Daffodils, the Rev. G. P. Haydon was first, using among others Lucifer, Princess Mary, Eoster, Katherine Spurrell, White Queen, Mrs. Backhouse and Will Scarlet; Miss A. L. Nix was second and Mr. F. Barchard third.

For six distinct single varieties, chalice-cupped, Mr. W. C. Bull was first, Messrs. G. F. H. Banks and J. Shephard being second and third respectively.

For six distinct single varieties of saucer or flat-crowned, the Rev. G. P. Haydon was first with Barcarolle, Bullfinch, Sequin, Chaucer, Tomtit and Gleam. Mr. W. C. Bull was second and Miss A. L. Nix third.

For seedling Narcissi, three distinct varieties not in commerce, the Rev. G. P. Haydon was first with Lord Milner, Herne and The Grey Mare; second, Mr. A. J. Bliss.

For the finest bloom of trumpet Daffodil, the Rev. G. P. Haydon won with Our M.P., a beautiful bloom of a clear yellow. Mr. C. G. A. Nix was second with Weardale Perfection and Mr. J. A. Nix third with Hamlet.

For the finest single bloom of a chalice-cupped Daffodil, the Rev. G. P. Haydon was again first with Bedouin; Mr. J. A. Nix second with Lady Margaret Boscawen; and Mr. F. Barchard third with Ophelia.

For the best saucer or flat-crowned Daffodil, the Rev. G. P. Haydon was first with St. Cosmas.

TRADE EXHIBITS.

Messrs. Barr and Sons staged a very fine collection of Daffodils comprising largely the more popular varieties; Messrs. Bunyard, G. A. Clark and Charlton and Sons, Daffodils and spring flowers; and G. Reuthe, Keston, hardy flowering shrubs and alpine plants. Mr. F. Herbert Chapman also put up a small table of Narcissi comprising some new seedlings.

NORFOLK AND NORWICH HORTICULTURAL SOCIETY'S SPRING FLOWER SHOW.

THERE was a time when, after several adverse "gates," the committee thought of abandoning this fixture, but a special appeal was made to horticulturists and sufficient funds came in to warrant the holding of it this year, and a very pretty exhibition it proved to be. The takings this year were also some pounds in advance of last year. As might be expected, the main feature was outdoor spri flowers, but these by no means predominated the exhi tion, for the pot plants and indoor flower section we well represented. The best of the Narcissi were fr Mr. George Davison, gardener to Colonel Petre, Westwi In his thirty-six bunch class and the class for twel varieties of trumpets he had superb blooms, and it was his credit that he had five of his own raised seedlings, of the large trumpet type and with wide perianths. doubt these will be heard more of, for they are too good be lost sight of. Mr. A Woodhouse, gardener to Sir Cozens-Hardy, also exhibited in the same classes as Davison, and had beautiful blooms of all the newest kind his arrangement was very good. There were, of cour several smaller classes, to which the many local growers Narcissi sent of their best.

Mr. Lewis Smith, gardener to Robert Fellowes, Es Shotesham Park, achieved great success in winning fi prize for twelve bunches of hardy flowers, first for twel bunches of exotic flowers, first for six Orchids in pots, fi for six distinct bunches of Anemones, as well as ma other prizes. In his hardy flowers he had such pret early plants as Trillium grandiflora, Gentiana acaul Primula rosea and Iris pumila. The Polyanthuses stag by Mr. Frank Neave, Lingwood, were the largest ever se at a Norwich show, and the wonder was how he got su immense trusses and pips.

A great feature, and one which attracted much att tion, was the class for a group of Carnation blooms. W. Laws, gardener to G. E. White, Esq., Eaton, put u beautiful lot, with which he secured first prize. It c tained such good kinds as Marmion (in fine form), Wins White Perfection, Enchantress, Mrs. H. Burnett a Britannia. Tulips were very short in numbers. Pansi Violets and greenhouse flowers were well shown. plants were all good. The challenge cup for a circu group of flowering and foliage plants was secured by Andrews, gardener to Captain Meade, Earsham Hall, arrangement being very effective. Fruits were o represented by Strawberries, but those shown were w coloured. Mr. W. Chettleburgh, gardener to Colo Rous, Worstead, had a beautiful lot of early vegetabl which won him first prize.

Messrs. Daniels Brothers, Limited, Norwich, made most artistic and effective display of flowering shru Roses in pots, with cut Rose blooms, which was grea commented upon for its beauty (silver medal awarde Hobbies, Limited, Dereham, made a feature of Roses the new types of ramblers and Hybrid Teas, a most pret arranged stand (silver medal). Mr. G. W. Miller, Clark Nurseries, Wisbech, brought a large batch of Orchids flower, mostly Odontoglossums (silver medal). Mr. Rider Haggard also received a silver medal for his splen exhibit of Orchids.

OXTED AND LIMPSFIELD SOCIETY.

THE spring show in connection with the above society held on April 27, and with regard to the large numbe competitors, as also the high excellence of not a few of exhibits, there was seen to be a marked advance previous exhibitions; indeed, the promoters of the sh equally with the exhibitors, have every reason to satisfied with the results of their endeavours. In the t dozen or so classes arranged for this exhibition, alm every phase of the spring flower garden is catered from the choicest Narcissi, which are grown and displa with ability and success, to the great variety of ha perennials, border and alpine Auriculas, Polyanthu Tulips and the like, a no inconsiderable item being vases of Daffodils and cut flowering shrubs. Here, inde is demonstrated in an unmistakable manner that it is the number of the classes a schedule may contain t makes the show a success; rather is it the friendly riv and the keenness of the exhibitors, who turn up in th dozens. In promoting a spring show in a rural district Oxted this society is accomplishing a useful work.

For a collection of twelve varieties of Narcissi ot than Polyanthus forms, and for which Messrs. Barr Sons offered a silver vase as first prize, Charles A. Cl Esq., Stonehurst, led the way, his examples of Hor (Poeticus), Beauty, Albatross, Waterwitch and Flamb being excellent. The same exhibitor also took the f prize for four distinct varieties of Magni-Coronati, series including Mme. de Graaff (beautifully finis flowers), Admiral Togo, Weardale Perfection and Glor Leiden, the honour of first place falling to the sa exhibitor for four varieties of Medio-Coronati Daffodils

In the class for three vases of cut flowers there w eleven competitors, T. Hamilton-Adams, Esq., taking f place with superb examples of Trillium erectum, T Keizer's Kroon and Fritillaria Meleagris, the latter mixture. In the class for Auriculas, W. A. Pye, Esq., ahead of all comers, his Argus, Teviotdale and Ettr all high-class alpine varieties, superbly grown, comma ing attention at once. The vase, bowl or epergne cla for Daffodils and spring flowers respectively brought m competitors, Miss Close taking the premier prize in e class. In the spring flower class this lady displa originality and taste by using, in conjunction wit brown vase of Doulton ware, crimson and yellow W flowers, Keizer's Kroon Tulips in scarlet and gold, Berb Darwinii, sprays of Prunus Pissardii and a few Dolly Daffodils. In the same class Mrs. Leaf followed white Daffodils, red Tulips and boughs of wild Ch blossom. Miss Scott, who employed a blue-coloured v used Muscari conicum Heavenly Blue, with flowe shoots of Periwinkle (Vinca) and white Arabis, secu the third prize. Space precludes a more detailed re of this interesting show, for which we have nothing praise.

THE MIDLAND DAFFODIL SOCIETY'S SHOW.

EACH year this magnificent and admirably arranged exhibition shows unmistakable signs of improvement, not only in the number of exhibits staged, but in the quantity of high-class new varieties that are to be seen. Indeed, we may now fairly regard it as *the* leading Daffodil show in the kingdom. This is due to a very large extent to the organising genius and genial personality of Mr. Robert Sydenham, who is so ably supported by the hon. secretary, Mr. H. Smith, both of whom spare no pains to make the show a success and to make exhibitors and visitors alike as comfortable as possible.

COMPETITIVE CLASSES.

Group A.—Open to All.

In Class 1, for fifty varieties of Daffodils not to include bunch-flowered sorts, there were four entries, Messrs. Cartwright and Goodwin, Kidderminster, securing first prize with a beautiful group. The flowers here were perfect, and included all the best leading sorts as well as new varieties. Marigold, Peter Barr, Semiramis and Marie Hall were distinct and extra good sorts. Second honours fell to Mr. J. Pope, King's Norton, who also staged flowers of superb quality. Third prize was won by Mr. F. H. Chapman, Rye, whose flowers included some superb Poeticus varieties; and fourth prize was awarded to Mr. C. Bourne, Bletchley.

For twelve distinct varieties of long trumpet Daffodils, three of each, Messrs. Cartwright and Goodwin were first out of four competitors. Their flowers here were superb, such sorts as Hamlet, Admiral Makaroff, Mrs. R. Sydenham, Mrs. H. J. Veitch and Lady Audrey being shown in perfection. Mr. J. Mallender, Bantry, was placed second, his Vizir and Sybil Forster being very good. Third and fourth prizes were won respectively by Messrs. T. Impey and Sons, Northfield, and Mr. J. Pope.

For six distinct varieties of short trumpet Daffodils Messrs. Cartwright and Goodwin were first; the Rev. J. Jacob, Whitchurch, Salop, a good second; and Mr. J. Pope third.

For twelve varieties, distinct, of large-cupped Narcissi there was strong competition, the Rev. J. Jacob winning in fine style with superb blooms. Albatross, Whitewell, Evangeline, Charles and Lucifer were all superb. Mr. H. D. Phillips, Olton, was second, and Messrs. Cartwright and Goodwin third.

In a similar class for small-cupped varieties, competition was not quite so good, but Messrs. Cartwright and Goodwin secured premier prize with a wonderfully clean lot of flowers, Beacon and Edith being two of the best. The Rev. J. Jacob was second.

For six distinct varieties of true Poeticus there were three entries, Mr. F. H. Chapman of Rye being a good first with superb flowers, his varieties being White Elephant, Horace, Tennyson, Sonata, Kingsley and Kestrel. Messrs. Cartwright and Goodwin were second, and Mr. Christopher, Bourne, third.

Two exhibits only were staged for six distinct varieties of flat-cupped Narcissi, the prizes being won respectively by Messrs. Cartwright and Goodwin and Mr. Pope, these exhibitors winning in the same order for six vases of double varieties. For six distinct varieties of bunch-flowered Daffodils, the Rev. J. Jacob was first with superb examples, Orient, Elvira and Ideal being the best. Orient is a variety that we are very much taken with, its bright red-edged cup standing out beautifully against a bold creamy white perianth. Messrs. Cartwright and Goodwin were second.

Group B.—Open to Amateurs Only.

For a collection of Daffodils, twenty-five varieties, there were seven entries, first prize being won by Mr. E. H. Wood, Ludlow, who had a very fine lot of flowers indeed, Gloria Mundi, Almira and Lucifer being three of the best. Second prize went to Mr. N. Y. Lower, Presteign, who also staged excellent flowers, Albatross being in fine condition. Third, fourth and fifth prizes were won respectively by the Rev. T. Buncombe, North Devon; Mr. S. S. Jones, Whitchurch; and Mr. H. R. Darlington, Potter's Bar.

There were five entries in the class for nine distinct varieties of long trumpet Daffodils, first honours here falling to Mr. N. Y. Lower for very clean and fine flowers. Mr. H. R. Darlington was a good second.

For three distinct varieties of short trumpets there were two entries, the prizes being won respectively by Messrs. Lower and Darlington.

There were no fewer than eight entries in the class for nine distinct varieties of large-cupped Daffodils, first prize being won in fine style by Mr. N. Y. Lower with beautiful examples, Queen Alexandra and Lucifer being shown in perfection. Mr. H. R. Darlington was a good second, and J. A. Kenrick, Esq., Edgbaston (gardener, Mr. A. Cryer), third.

In a similar class for small-cupped varieties competition was again very keen, Mr. Lower once more being the champion, the Rev. T. Buncombe being placed second and Mr. Darlington third. The flowers here were generally very good.

For three distinct varieties of Poeticus there were six exhibits staged, Mr. Darlington being first with excellent examples of Horace, Virgil and Dante. Mr. Lower was a good second with Rhymster, Horace and Homer.

In a similar class for flat-cupped Daffodils there were five entries, the Rev. G. P. Haydon, Canterbury, winning first prize with Sequin, Barn Owl and Thistle. The Rev. T. Buncombe and Mr. Lower were second and third respectively.

For three varieties of double-flowered Daffodils five competitors entered, J. A. Kenrick, Esq., Edgbaston (gardener, Mr. A. Cryer), being first, and J. A. Kenrick, Esq., Harborne (gardener, Mr. R. Usher), second.

A similar class for bunch Daffodils was splendidly contested, Mr. H. R. Darlington being first with Irene, Aspasia and Elvira; Mr. S. S. Jones, Whitchurch, was a good second.

Group C.

For twelve distinct varieties of Daffodils, any or all sections, there were no fewer than nine entries, first prize falling to Mr. H. H. Jones, Ludlow, for a very clean lot, including good Mme. Plemp and Almira. Mr. W. Marple, Penkridge, was second; and Mr. A. Taylor, Acock's Green, third.

The class for six distinct varieties of trumpet Daffodils was splendidly contested, first honours falling to Mr. A. Taylor, who showed Grandee, Mme. de Graaff and Glory of Leiden in excellent form. The first prize in a similar class for large-cupped varieties was won by Mr. B. Bowen, Ludlow, whose best flowers were Barri conspicuus.

Group D.—Open to any Exhibitor in Group A, B or C.

For six vases of Daffodils, distinct, selected from given varieties, there was a very keen competition, first prize being well won by Mr. J. Pope. Mr. W. Marple was second.

In the single bloom classes the following were the first-prize winners: For long trumpet Daffodil, yellow self, Messrs. Cartwright and Goodwin; long trumpet, other than yellow self, Mr. A. M. Wilson; short trumpet Daffodil, Mr. J. Mallender; large cup, Mr. H. D. Phillips; small cup, Messrs. Cartwright and Goodwin; true Poeticus, Mr. E. M. Crosfield; flat cup, Messrs. Cartwright and Goodwin.

SEEDLING AND NEW VARIETIES.

The great attraction of Birmingham is the number of novelties that are always to be seen there. The section of the schedule which is devoted to them is a large one. Eight classes are entirely confined to seedlings and new varieties "that have not been in commerce four years." The Bourne Cup (Class 34), for twelve distinct varieties of Daffodils that have been raised by the exhibitor, was won for the second time in succession by Mr. E. M. Crosfield of Cossington, near Bridgwater. He showed an entirely different set from those with which he gained the prize last year. Challenger is one of the best flowers that he has raised—it is a large red-edged incomparabilis; Anchorite; Climax, a large white trumpet; Charles Surface, a variety with dainty shell-shaped petals; Elf, small but very round; and Red Rover, flat, red eye, were some of this fine collection. The second prize went to Mr. F. H. Chapman of Rye. He had a remarkable pink-eyed bloom without a name. This and Henry James, another flat-eyed variety, were two of the best. The Rev. G. P. Haydon was third.

In Class 35, for six varieties of seedlings raised by the exhibitor, one bloom of each, like in Class 34, Mr. P. D. Williams of St. Keverne, Cornwall, was first. He had Suvia (a large incomparabilis), Yolande, Byron and Norseman. Mr. A. M. Wilson secured the second place.

The Cartwright Challenge Cup (Class 38), for twelve distinct varieties that have not been in commerce four years (one bloom of each), was also won for the second time running by Mr. E. M. Crosfield. He had a glorious set of flowers. Challenger and Anchorite we have already alluded to. Others of great merit were Firetail (a large all-red cup and a pale yellow perianth), Winsome, Chintz (red cupped), Honey Maid (triandrus seedling) and Wraith (white Magni). The runners-up were Messrs. Cartwright and Goodwin. Their collection included White Star (a beautiful lemon cup and reflexing almond-shaped petals), White Nectarine (fine white giant Leedsii), Mervyn (the somewhat erratic yellow Magni), Matthew Arnold (the new Poet that received an award of merit in April from the Royal Horticultural Society; and Giraffe. The third prize went to the Rev. G. P. Haydon, whose collection included trumpets and Poets.

In Class 39, for six distinct varieties that have not been in commerce four years, the Rev. Joseph Jacob had a very fine little lot. Leonard is a large, refined, pure white trumpet; Mrs. W. O. Wolseley, a good giant Leedsii (very white); and Whitewell is a really first-rate incomparabilis with a Princess Mary cup and a broad ivory white perianth of much substance. Mr. J. Pope was second with some good flowers; perhaps the most striking were Middleton Favourite and the Rev. C. Goltwaltz.

Mr. Herbert Chapman of Rye offered a cup for his favourite class of Poets. This was the first prize in Class 40, and was won by Mr. A. M. Wilson with a beautiful collection. Sarchedon was especially fine. Messrs. Cartwright and Goodwin were second, and included among their flowers were Matthew Arnold and Rudyard Kipling. The Rev. G. P. Haydon was third. He had one particularly noticeable flower, viz., Kingsley. This variety stood out alone. In our opinion it is one of the very best Poets that we have.

Special mention must be made of the three blooms which gained for Mr. A. M. Wilson the first prize in the novice class for seedlings, not that he is a novice in cultivation, but he is only just beginning to exhibit seedlings of his own raising. Maud Muller is a particularly refined-looking white or very pale bicolor trumpet. The perianth is placed at right angles to the trumpet and is of good substance and quite flat. The trumpet is somewhat narrow and long, but not out of proportion. Levala (incomparabilis) and Genevieve (Poet) were his other blooms.

Class 41 was for triandrus hybrids. The first prize was a challenge cup presented by Mr. Walter T. Ware of Bath. This produced a keen competition, for there were no fewer than six exhibits staged. Mr. E. M. Crosfield was placed first; Messrs. Cartwright and Goodwin second; and Mr. F. H. Chapman third. It is impossible to particularise among the flowers; it is sufficient to say that every shape and possible colour were included in one or other of the collections, and the whole afforded the general public an insight into the wonderfully beautiful things that suitable crosses produce.

CERTIFICATES.

There were a great many varieties put up for awards. Only six successfully ran the gauntlet. These were Kingsley, the Poet mentioned in the Rev. G. P. Haydon's lot of six; Anchorite, the beautiful white and lemon "large cup" of Mr. E. M. Crosfield; Challenger and Firetail, also Mr. Crosfield's; White Star, the lovely bloom with long almond-shaped perianth segments that was exhibited last year by Mr. P. D. Williams, the raiser; and Snow King, a large, smooth-petalled Poet—quite first-rate.

The following were the first-prize winners in other miscellaneous classes: Six varieties of Darwin Tulips, Mr. J. A. Kenrick, Harborne; six varieties of Spanish Iris, Mr. J. A. Kenrick, Edgbaston; six pots of Daffodils, distinct, Mr. W. H. Parton, Hollywood; six pots of single Tulips, distinct, Mr. J. A. Kenrick, Harborne; six pots of any bunch-flowered Daffodils, Mr. J. A. Kenrick, Edgbaston; six pots of spring-flowering bulbs, Mr. J. A. Kenrick, Edgbaston. In the classes for bulbs grown in moss fibre, the prizes for which were offered by Robert Sydenham, Limited, Mr. S. Mortimer, Rowledge, Farnham; Mr. W. H. Parton and Mr. J. A. Kenrick, Edgbaston, were the principal winners. For a table decoration, Mr. J. Sceancy, Harborne, was first; bowl of cut Daffodils, Mr. S. S. Jones won; and for a vase of spring flowers, the Rev. J. Jacob was first.

The silver Daffodil vase offered by Messrs. Barr and Sons to the most successful amateur or gentleman's gardener in groups B and D was won by Mr. N. Y. Lower.

NON-COMPETITIVE GROUPS.

These were more numerous than ever, and in many instances the quality was very good indeed. In a few cases, however, the flowers were arranged too closely together to enable visitors to see them to the best advantage.

Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Lowdham, staged a fine bank of splendidly grown flowers, the colours of most of the small-cupped varieties being very brilliant indeed. Among these bright-cupped sorts were Scarletta, Warley Scarlet, Lucifer, Scarlet Eye, Romance, a beautiful flower with rich yellow perianth and large broad cup, the centre of this being yellow, beautifully edged scarlet; and Firebrand. Other notable varieties were Bianca, Florence Pearson, a glorified Mme. de Graaff with rather deeper and broader trumpet; Miss B. Farmer, another of the Mme. de Graaff section with very long trumpet; Dorothy Kingsmill, creamy white perianth and long, deep primrose trumpet with a dainty edge of paler colour; J. B. M. Camm and the beautiful Poetaz Aspasia. Large silver medal.

The group arranged by Robert Sydenham, Limited, Birmingham, was an excellent one in every way, and in addition to a beautiful lot of Daffodils comprised Hyacinths, Tulips, Lilies of the Valley, Spiræas and Lilies grown in the firm's well-known fibre. Among the Narcissi we specially noticed excellent examples of Lucifer, Red Crest, Seville, a wonderful flower with pure white, broad-segmented perianth and large, rich orange cup; and Glitter among the bright-cupped varieties. Of the large trumpet varieties King Alfred, Glory of Leiden, maximus, Weardale Perfection and Mme. de Graaff were superb. Other beautiful varieties were White Queen, Ariadne and White Lady. Large silver medal.

R. H. Bath, Limited, Wisbech, staged a fine group of well-grown Narcissi, these comprising many leading varieties. Among those which called for special mention were Fire Flame, Homespun, Seabird, Horace and Cassandra, two beautiful Poets; Albatross and J. B. M. Camm. The Poetaz section was well represented in this group, Elvira, Irene, Triomphe and Alsace being shown in splendid condition. In addition to the Daffodils, Messrs. Bath had a few examples of their beautiful large-flowered Pansies, which elicited general admiration. Silver medal.

Messrs. Dickson's, Chester, had a small but varied collection of Narcissi, and also some excellent examples of the graceful little Primula malacoides in pots, together with a few Gerberas. The Narcissi included such varieties as Albatross, Elaine, White Leedsii, Firebrand, Johnstonii Queen of Spain and Mrs. J. B. M. Camm. Silver medal.

Messrs. R. Felton and Sons, Hanover Square, exhibited a small but beautiful collection of hybrid Gerberas, the colours among these being a revelation to many. In addition there were three vases of the beautiful Lyon Rose, the colour of which harmonised splendidly with that of the Gerberas. Silver-gilt medal.

The Daffodils from Messrs. Hogg and Robertson, Limited, Mary Street, Dublin, were a very beautiful lot indeed, and were arranged so as to show each variety to perfection. A good number of bright-cupped sorts were to be seen, among these being excellent examples of Flamingo, Mona, Firebrand, Oriflamme, Lucifer and Will Scarlet. Ireland's Eye was a beautiful flat-cupped flower with a broad, pure white perianth, the large cup being rich yellow, tinted orange. Child of the Mist was an almost pure white trumpet variety closely resembling in shape Mme. de Graaff, except that the trumpet was broader. Mrs. F. W. Moore is another of the Mme. de Graaff section, the large, long trumpet being primrose, very faintly tinted apricot. Large silver medal.

A good group of Narcissi came from the Lissadell Bulb Farm, Sligo, some beautiful Poets especially attracting attention. Among these were Homer, Queen Maene, Muriel and Horace. In addition we noticed several excellent unnamed seedlings of this section. Other notable varieties in this group were Mrs. Percy Foster, Weardale Perfection, Mrs. R. Sydenham and Maggie May. Small silver medal.

Messrs. W. H. Simpson and Sons, Birmingham, put up a large and varied group of well-grown flowers which were, however, rather too crowded. The old Gloria Mundi was well shown here; and Poetaz Elvira, Duchess of Westminster and Vesuvius were other well-grown flowers. Silver medal.

The group of Narcissi shown by Miss Currey, Lismore, Ireland, was beautiful in the extreme, all the flowers being of grand substance and colour throughout, and fully deserving the gold medal that was awarded. The bright-cupped varieties were particularly beautiful and clean. Among these we noticed Warley Scarlet, Red Emperor, Oracle, Joan of Arc and Geraldine. In addition there were many beautiful varieties of other sections, notable among them being Maggie May, Evangeline and Queen Sophia.

Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, put up a beautiful lot of Daffodils, and also Darwin and other May-flowering Tulips, as well as Gerberas and rock plants, the whole forming a very attractive display indeed. Large silver medal.

Messrs. Sutton and Sons, Reading, staged a large bank of their noted Cinerarias in groups of distinct colours and types, the whole creating a picture of great beauty and attracting considerable attention. Silver-gilt medal.

The rock garden arranged by Bakers of Wolverhampton was very attractive, this being designed in a series of gullies and bays and freely planted with flowering rock plants in season. Gold medal.

The group of Narcissi staged by Messrs. Barr and Sons, Covent Garden, was exceedingly interesting, and the arrangement far above the ordinary. There were quite a number of extra good varieties shown in it, and many of these were of first-class quality, including Royal Star, Fire Queen, Bianca, Homer, Firebrand, Victory, Snow King, Aspasia, Incognita and Henri Vilmorin. Two seedlings that specially attracted our attention were a beautiful Poeticus variety named Socrates and a rich yellow self trumpet. The Poeticus was a perfect flower, and might be fairly classed as the richest-eyed flower of its class in the show. It had a good solid perianth and broad eye, this being margined with a broad band of rich blood crimson. The trumpet variety was an unnamed seedling from King Alfred, and, in addition to its intense rich yellow colour, possessed perfect form and refinement. Silver-gilt medal.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, exhibited a very beautiful collection of Polyanthuses, the distinct colours showing up to great advantage. The deep yellows were very fine indeed, and the crimson and purple flowers, too, found much favour with visitors. Large silver medal.

Messrs. Hewitt and Co., Solihull, had a small group of Roses and Gerberas, the whole being well arranged. Silver medal.

The group of new Daffodils staged by the Rev. G. H. Engleheart was a very fine one indeed, and attracted a great deal of attention. Unfortunately, they were all shown under numbers, which renders it useless to refer to them in detail. Silver-gilt medal.

Messrs. W. T. Ware, Limited, Bath, had a small group of very choice Narcissi, mostly of the Poeticus section, Lighthouse, Mont Blanc and Comet being three of the best. Large silver medal.

Mrs. Backhouse, Sutton Court, Hereford, had a delightful group of seedling Daffodils, among which were some remarkably fine flowers, many of which will doubtless be named in course of time. Silver medal.

Mr. A. M. Wilson, Bridgwater, had a wonderful group of the newer varieties. Berseker, a large yet refined self yellow trumpet; Kestrel, a beautiful and still the best Poeticus; Sarchedon, a very thick Poeticus of good form; Challenger, a short-cupped variety with large perianth of pure white; Algitha, a dainty and refined little Poet; and Whisper, short cup, pale lemon, were some of the best flowers. Silver-gilt medal.

At the dinner, which was kindly given by Mr. Robert Sydenham at the Grand Hotel to various friends of the society, there was an excellent gathering of Daffodil enthusiasts. After the loyal toast, the Rev. J. Jacob, in a splendid oratorical effort, proposed "The Judges and Exhibitors," and in doing so referred to the great loss the society had sustained in the death of Professor Hillhouse. He was pleased to be able to tell them that the show this year was a substantial advance on any they had previously held. Mr. P. R. Barr and Mr. W. T. Ware ably responded. Mr. P. D. Williams, in proposing the "Midland Daffodil Society," said that the society undoubtedly owed its success to the generosity and good management of Mr. Robert Sydenham. The Rev. G. H. Engleheart, in responding, paid a great tribute to the work of the hon. secretary, Mr. H. Smith. Mr. Sydenham, in proposing "The Visitors," also referred to the work of Mr. Smith. He said it was a very great pleasure indeed to him to yearly welcome visitors to the show and to see the many excellent new seedlings that were staged. After the toasts had been disposed of, the Rev. G. H. Engleheart opened a discussion on Daffodils, which will be dealt with in the Rev. J. Jacob's Daffodil notes next week.

BRECONSHIRE DAFFODIL AND SPRING FLOWER SOCIETY.

THE fourth annual show of the above society was held in the Market Hall, Brecon, on April 26. It was again a great success, although three or four usual competitors were unable to exhibit owing to unavoidable causes. The date fixed proved to be a little late for the district, and the early varieties undoubtedly showed signs of having been kept. Comparing the present show with the first, which was held in the Parish Hall, no one could fail to note a great advance in the way the flowers were staged and also in the accuracy of naming. This must be very gratifying to the energetic president, Lord Glanusk, who takes the greatest personal interest in everything that concerns the society, and also to the indefatigable secretary, Miss A. de Winton, who, report says, begins to count the days to the next directly one show is past. A successful society must necessarily bear the impress of one person; and so it is at Brecon. The strict limitation of the extra-Daffodil classes and exhibits to spring flowers differentiates this show from others. The stand of the local nurseryman, Mr. Alfred Quarrell, it is true, was filled with Calceolarias, Pelargoniums, Ferns and similar things; but then there is no rule without an exception.

With regard to the exhibits, we must congratulate Mrs. Christy of Llangoed on her first effort as an exhibitor. Her six large trumpets were a splendid set of blooms, and received a special commendation from the judges. The six varieties shown were Admiral Togo, Mme. Plemp, Empress, Mrs. Camm, Mme. de Graaff and Glory of Leiden.

Among the trade groups, Messrs. Barr and Sons were awarded a gold medal for a fine large exhibit of choice Daffodils and a small collection of alpines and Tulips. Among the former we noticed Cygnet, a delightful white trumpet; Amazon, a well-shaped Leedsii which is excellent for showing; Buttercup, the expensive Campernelle hybrid; Cassandra, one of the earliest and best of the new Engleheart strain; Strongbow, a stiff bicolor incomparabilis of the old Backhousei type; Resolute, a new Nelsonii; Beacon and Duchess of Westminster.

There was also a nice collection from Lissadell, but it arrived late, and when we saw it the flowers badly wanted water—Will Scarlet, the marvellous large red-cupped kind; Maggie May; Firebrand; Phyllis, a good low-priced Leedsii; and Acme, the lovely red-eyed Poet that not many years ago was worth a king's ransom.

Messrs. Heath and Son were awarded a silver medal for a small group of spring flowers. We noticed Caltha polypetala, Primula ciliata purpurea magnifica and the rare Fritillaria Elwesii with its pretty greenish flowers. Messrs. H. and W. Evans had another little lot, which included some good varieties of Iris pumila, Aubrietia Lavender, Saxifraga Clibranii, &c. The prize-winners in the competitive classes included Lady Salt, Mr. Moore Gwyn, Mrs. Woosnam, Miss M. de Winton, Miss A. de Winton, Mrs. Mitchell, Mrs. Raikes, Miss Venables, Mrs. Christy, Mrs. Ray, Hon. Mrs. Cowper Coles, Mrs. Dumaresq Thomas, Mrs. Lloyd, Mrs. Carne Ross, Lord Glanusk, Mr. H. Gray, Mr. Carne Ross, and two children, Miss Morgan and Master P. Williams. It was curious to note how almost everyone who exhibited received a prize in one class or another. The competition was almost entirely local; there was only one competitor who did not reside in the county of Brecon.

A useful feature, which other societies might with advantage to the general public copy, was the issuing of a printed list of all the exhibitors in each class, with the description of each copied from the schedule.

THE HEREFORDSHIRE SPRING FLOWER SOCIETY.

THE first venture of a new society must always be a source of considerable anxiety to those who have the control of affairs. It must, therefore, have been a great relief to Mr. H. J. Bailey, the chairman of committee, and to Miss Alice Barneby, the energetic and enterprising secretary, to see the Shire Hall filled with such a large and good collection of Daffodils and spring flowers when the judges, Miss Williams, R. W. Wallace, Esq., and the Rev. J. Jacob, commenced their duties on April 27. The whole presented a very smart appearance from the raised platform at the further end of the hall. There was a deep green dado all round the walls, and the same material covered the central stages and hung like a curtain above the topmost tier to divide one side from the other. The only criticism we feel that we ought to make is that if the attendance later on in the day was large, the alleys or gangways would be, we fear, a little narrow.

The arrangement of the schedule, as far as Daffodils were concerned, was a little out of the common. Out of eleven classes devoted to them no fewer than seven were for collections, which were to include flowers of the different groups into which for a long time past they have been divided, viz., Magni-Coronati, Medio-Coronati and Parvi-Coronati. This arrangement worked well, for there was keen competition in every class but one. The class for a collection of twelve kinds of unnamed Daffodils was full to overflowing, and took a considerable amount of the judges' time before they could decide which were to be the prize-winners. This seems an excellent idea to encourage beginners and get a bite. The committee have acted wisely in setting such a tempting bait, and we hope they will manage to hook some good future exhibitors. In Class 2, for fifteen varieties, Sir John Llewelyn, Bart., easily carried off the first prize with a beautifully clean and fresh assortment, including Buttercup (the lovely giant Jonquil), Firebrand and Gloria Mundi. This last was excellently coloured; in fact, all through the show the brightness of the red cups was most noticeable. Mrs. H. J. Bailey was second with a good lot of blooms. In Class 7, for twenty varieties, no bulb to exceed 10s. in value, Mr. N. Y. Lower was first. Included among his flowers were good examples of Gloria Mundi, Lucifer, Blood Orange, Beacon, White Lady and Waterwitch. It was a fine exhibit, and the Rev. A. C. Lee was second. In the three single bloom classes Mrs. H. J. Bailey secured two firsts and one second. Her flowers were very good examples of their different kinds, and showed careful cultivation. The other prize-winners in the Daffodil section were Mrs. Arkwright, Miss Bird, Mrs. Davenport, Miss Bosley, Miss E. Barnes, Mrs. R. Heygate, Miss Alice Barneby, Rev. R. H. Wilmot, and Master Charlie Horton (children's class). In the decorative and spring flower section special mention must be made of a very simple but charming exhibit by Mr. W. T. Barneby of a basket of flowers. It was a delightful arrangement of pink Cydonia japonica and Amelanchier canadensis in a brown thin-twigged basket, and was much admired.

Another feature was the excellent miniature rockery or rock garden, in which the Rev. R. H. Wilmot placed his collection of eighteen varieties of hardy spring flowers. It was composed of tufa and granite chippings, and the whole was splendidly arranged, with every part most carefully balanced. A flat surface of stone was relieved by a mass of Primula cortusoides and a tuft of Orobus alba rosea; while out of a little mass of chippings appeared Viola gracilis or Primula Forrestii. The front had a bay, which was just about large enough to hold the show-card. We noticed that a space of about 12 inches or 18 inches was left between each group. This gave a wonderfully good appearance to the different little collections and was well worth the space expended.

There was strong competition in the members' classes for hardy flowers and shrubs. Unfortunately, in several cases, the rules of the schedule were not observed, and we noticed the ominous words, "See other side." No doubt another year this will be changed.

In Class 21, for shrubs, Lady Rankin put up a really beautiful collection—splendidly arranged and each item a fine example of its kind. Cydonia japonica, Grevillea rosmariniflora, and Magnolia stellata were A1. The second collection was made up of rarer kinds, but lacked effective grouping and spacing. We noted in it Cytisus Ardoinei, Piptanthus nepalensis, Amygdalus nanus, Lonicera tatarica and L. fragrantissima. Other prize-winners were Mrs. H. J. Bailey, Mrs. Davenport, Miss E. Armitage, Mrs. H. B. Mynors, Mr. W. T. Barneby, Mrs. G. Williams, Mrs. A. W. Foster, Lady Evelyn Cotterell, Rev. J. S. St. John, Miss Joyce Croft, Lady Croft, Miss Hopton, Mr. C. P. Bird, Rev. H. Mallinson and Mrs. Heygate.

In the trade exhibits the most important were those of Messrs. Barr and Sons, The King's Acre Nursery Company, Mr. G. Reuthe, Messrs. Heath and Co., Mr. J. Wilson and Messrs. H. and W. Evans.

These were all good and interesting in their respective lines.

CROYDON AND DISTRICT HORTICULTURAL MUTUAL IMPROVEMENT SOCIETY.

A CAPITAL attendance of members at a recent meeting held at the Sunflower Temperance Hotel, George Street, gave a hearty welcome to Mr. J. Watson, B.Sc., Redhill. The title of his lecture was "Leaves," and appropriate to his subject he quoted the words of Ruskin, who says, "Leaves take all shapes as if asking to examine them." The society's electric lantern portrayed some grand slides the lecturer brought with him, and with this aid he was better able to convey to his audience the structure of the leaf. In examining this structure of a transverse section we find it is composed of the upper and lower epidermis or skin, and between these the cells, through which passes the food of the plant taken up with the sap from the roots. The flow of moisture passing through the plant is in excess of the plant's requirements, and this excess is passed into the air we breathe through open channels in the leaf called stomata. The stomata act a double purpose, for while they allow this escape of moisture, they admit also the carbon dioxide for their nutrition, which is chemically broken up by the chlorophyll or green colouring matter in the leaf. This process helps us to comprehend the economy of Nature. The arrangement of the leaves on a plant in the most favourable position to get sunlight is another point to be considered by the observer. Another study is the adaptation of the leaves of a plant to its environment, and an example of this is illustrated by the Water Crow's-foot. The part of the plant growing above the water has its leaves of considerable surface, while those submerged are of much finer substance and afford the greatest surface they possibly can to allow the plant to retain the gases for its food. In the Cacti we have an illustration of a different arrangement. For the many months they are without water at the roots, Nature has ordained methods of retention of moisture to serve the plant, and leaves to a plant of this kind would be a positive danger to its welfare. The Thistle furnishes us with an illustration of flower protection, the thorny structure being so arranged to prevent ants and other insects climbing up to rob the nectar from the flower. The proposal of a very hearty vote of thanks to Mr. Watson received unanimous support from the audience. Mr. O. Jeal, Waddon Lodge Gardens, staged half-a-dozen Cabbages Sutton's Early April, which were much admired.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THE last meeting of the session took place on Wednesday evening, April 27, and was given up to competitions in vase decoration. Flowers and foliage were kindly provided by the members, and great interest was shown in the proceedings. Head-gardeners and foremen took one class, and the prize-winners were: Mr. A. Histead, Shiplake, first; Mr. W. H. Scott, Twyford, second; Mr. A. Mackenzie, Wargrave, third; and Mr. J. Shipley, Shiplake, fourth. The class for journeymen did not produce so many competitors. The prize-winners were: Mr. A. Keep, Scarlets Park, first; Mr. E. Harris, Shiplake, second; and Mr. P. Allen, Scarlets Park, third. Messrs. Pope, Stanton and Tunbridge kindly acted as judges, and had a difficult task to perform. The flowers were forwarded to the Reading Hospital the following morning.

THE GARDEN.

No. 2008.—Vol. LXXIV. May 14, 1910.

CONTENTS.

King Edward VII. 237
The Revival of the Auricula .. 237
Notes of the Week
Forthcoming events 238
A new Orchid 238
The Royal Gardens, Kew, in spring .. 238
Correspondence
A floriferous Hyacinth 238
Alpine flowers under glass 238
Gardening of the Week
For the South and South Midlands .. 239
For the North and North Midlands .. 239
Kitchen Garden
Notes on vegetables 240
Summer salads for amateurs 240
Flower Garden
A beautiful Tulip .. 241
Daffodils at the Birmingham Show .. 241
Wallflowers and their culture .. 242
The Greenhouse
Greenhouse Acacias 243
Gardening for Beginners
Garden work week by week 244
How to grow Ridge Cucumbers 244
Planting herbs .. 244
Heat in glass houses 245
Daffodil growing in an old teapot .. 245
The Town Garden .. 245
Rose Garden
Rambler Roses in pots and their management .. 246
Delicate Roses, 1908-9 246
Editor's Table 246
New plants 247
Answers to Correspondents
Flower garden .. 248
Greenhouse 248
Miscellaneous 248
Societies 248

ILLUSTRATIONS.

The new Odontoglossum Rossianiæ rubens 239
A floriferous Hyacinth 240
A new Tulip: Tulipa kaufmanniana variety aurea .. 241
Narcissus Challenger 242
Narcissus Anchorite 242
Narcissus White Star 243
Herbs for the garden 244, 245
Narcissus in a teapot 245
Opening of the Midland Daffodil Show 246

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor of The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

KING EDWARD VII.

(Died May 6.)

THE world is sorrowing for the death of King Edward. The blow has fallen suddenly, and the country mourns, not its King alone, but one whose rule has been tempered with wisdom and deep devotion to a great nation, and a true friend in the beneficent cause of Peace. A reign all too brief has passed away, but the diplomacy and thoughtfulness for his subjects have made it one of abounding influence. A King has many duties and many interests, and in the world of horticulture he and his beloved Consort were ever ready to help forward works that had for their object the promotion of a great and increasing industry.

Those who were present at the opening of the hall of the Royal Horticultural Society will recall in this hour of sorrow the words of the late King, and his presence at the annual exhibition in the Temple Gardens was evidence of his sympathy with the development of horticulture.

Soon after his accession, when changes were made in the Windsor grounds and gardens, he took the liveliest personal interest in the details of the work. To the Queen Mother, Patroness of the National Rose Society, which brings her close to the hearts of the flower-lovers of this country, and to the King and Queen we tender our sympathy.

THE REVIVAL OF THE AURICULA.

A few days ago we spent some pleasant and profitable hours with Mr. James Douglas, whom we may well describe as the "Auricula King," in his nursery of flowers at Great Bookham, in Surrey, which is not far from the beautiful town of Leatherhead. We have seen the Auriculas there on more than one occasion, and visitors to the fortnightly meetings of the Royal Horticultural Society have carried away delightful reminiscences of the flowers that have come from a master-hand. It is a pleasure to pay this tribute to one of the greatest florists that has ever lived. This is not extravagant language, but the honest truth. Though Mr. Douglas can look back upon a long life, there still are many years, we hope, in front of him to pursue his inspiring work to even greater perfection.

We are writing now of the Auricula, only one of the numerous flowers this great florist has transformed into many exquisite varieties, and the long span-roofed houses were recently a revelation. Auriculas betray their presence before they are seen. The air is drenched with the sweetest of scents, a soft alluring perfume that recalls a Primrose wood when the flowers are thick among the mat of foliage. Auriculas have therefore one delicious attribute — fragrance — but that belongs to the poorest as well as the most exalted types. The heading to these notes is "The Revival of the Auricula," and the reason is that apparently during recent years it has become overshadowed by other spring flowers, perhaps the Daffodil. There are, however, strong signs that the Auricula is once again winning its way into the hearts of those who love their gardens, and no wonder when one can feast on such exquisite gems as the more recent kinds that have been raised at Great Bookham.

The "selfs" are remarkable, the colours bright, clear and exquisitely beautiful, comprising flower-gems that have astonished and delighted those to whom the Auricula makes a strong appeal. One little group of these gems was gathered together in a place by itself, and they were a revolution, marking surely a delightful and welcome break away from existing colour, bewitching in all their perfection in colour and form—maroon, ruby red, violet, soft rose, primrose yellow and, among the latest, those with a bronzy suffusion. Even in the gloomy light of May 2—a day to be remembered for its driving rain and chilly winds—the colours of these Auriculas seemed to shine with a fascinating glow, and the thousands of seedlings in which there is, or should be, some trace of this progeny contain probably many a variety that will give infinite delight in the near future.

Warley is, in our opinion, one of the great departures from existing types of recent years, and the award of merit of the Royal Horticultural Society was unanimously given to this fairy flower of its race. Then there are other glorious additions: Mai, a perfect flower, dense rose, a colour almost impossible to describe,

a jewel of its race; Agnes Cook, a peculiarly transparent primrose yellow; Beauty, an old rose shade and an entirely new form; and Dorothy Cutts, which has been pronounced the most remarkable development of recent years. The following description is from one who has had a life acquaintance with the Auricula in its many variations: "A fine-shaped fancy Auricula of an extraordinary novel type; its yellow ground, tinged with a beautiful copper colour, is its best characteristic, and there is an adherence to the true florist type of a self Auricula; the tube and paste are practically perfect."

At a recent meeting of the Royal Horticultural Society many exquisite flowers were shown, and three were given the award of merit—Dorothy Cutts, Mai and Canary Bird—out of many forms which for perfect colouring, form and strength of stem are unrivalled. There is a great future before these flowers, yellows as pure as the yellow of the Primrose, red as rich as rubies—Harrison Weir as an example—and the deep violets as rich as the Violet of wayside banks; Favourite and Mikado, of an intense colour. Among the yellow flowers May Day is one of the most popular for the warmth of its colouring and remarkable vigour. From these beautiful varieties one's thoughts go to the

ALPINE AURICULAS,

which are, perhaps, of more importance to the beginner. A cloud of colour and the sweetest of scents come from this type. It must not be forgotten that all the Auriculas are *hardy;* but the colouring of the finer forms asks for shelter from the storms of rain and wind of spring. The alpines that gave the writer most pleasure—but there is not a flower that is poor or uninteresting in this collection—are Mrs. Markham, Mrs. Douglas, Phyllis Douglas, Firefly, Admiration, Argus, Ettrick, Teviotdale, Urania, (for which Mr. Douglas received a first-class certificate twenty years ago), Duke of York, The Bride, Rosy Morn, Elegant and Una. These comprise varieties of strong growth, bearing large spikes or trusses—whichever one is pleased to call them—and displaying a series of warm shades distilling a scent that fills the house in which they are sheltered or the outdoor garden. It is surprising that such flowers have ever suffered from the scowls of Fashion. It is to be hoped that in the near future not only these but the selfs and the edged Auriculas will once again "become popular"—to use an ugly expression.

The plants are easily raised from seed, which should be sown in pots in July, preferably in a frame, and the seedlings will flower in about eighteen months, nothing being required but careful attention; that is, no coddling, but a soil maintained at an even condition of moisture, and watchfulness when the seedlings open. The seedlings that come from Great Bookham show an extraordinary high degree of merit, because they are from seed saved from the finest forms. We wish space allowed for a more detailed description, but hope sufficient has been written to further quickly and strongly the "Revival of the Auricula"—the sweetest flower of spring.

Perhaps some of the readers of these notes may wish for a selection of the more classic of the Auriculas, those described as edged varieties—flowers of delightful beauty, appealing, perhaps, more to the connoisseur than the ordinary amateur. Here is a brief list: *Green edged*—Mrs. Henwood, Shirley Hibberd and Abbé Liszt; *grey edged*—George Lightbody (raised in 1845), Marmion and Richard Headly; *white edged*—Conservative, Acme and Smiling Beauty. Auricula-time we anticipate with even greater pleasure than in the past. The Auricula has reasserted its right to the place in the procession of spring flowers. It should join with the Daffodil in scenting and colouring the garden before the days of spring have lost their fragrance.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 24.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 12 noon to 7 p.m. Admission 10s.

May 25.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 7 a.m. to 7 p.m. Open to public 12 noon to 7 p.m. Admission 2s. 6d.

May 26.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 9 a.m. to 6 p.m. Admission 1s.

Royal Gardeners' Orphan Fund.—Owing to the death of the King, the annual dinner, which was to have been held on the 19th inst., has been postponed.

West of England Chrysanthemum Society.—The schedule containing particulars of the above society's annual exhibition, to be held in the Plymouth Guildhall on November 15 and 16, is now being issued. There are a number of open classes in addition to those for exhibitors residing in the district. The hon. secretary is Mr. Charles Wilson, 4, North Hill, Plymouth.

British Gardeners' Association.—The annual general meeting of the members of this association will be held at Carr's Restaurant, Strand, London, W.C., on Wednesday, May 25 (second day of the Temple Show), at 7 p.m.

A new Orchid (Odontoglossum Rossianiæ rubens).—There is not a meeting of the Royal Horticultural Society that does not bring forth some new and beautiful Orchid. Among the many delightful recent additions to the Odontoglossums, that named O. Rossianiæ rubens will rank as perhaps the most distinct. The flowers are of the daintiest form, exquisitely marked, the segments pointed, and there is nothing approaching an abnormal size, while the ground colour is soft lilac, barred and dotted with dull crimson. A decided bar of this colour is placed longitudinally at the base of each segment, and this gives a star-like appearance to the flower (see page 239). It was shown by a French raiser, M. Henri Graire, Amiens, France, at a meeting of the society on April 19, and given an award of merit.

The Royal Gardens, Kew, in spring. The gardens at Kew are in their spring dress, and no season is more likely to provide lessons for those who wish for beautiful effects in the groupi of trees, shrubs and flowers than the present. Bl bells are hiding the grass with their little forests flower-stems, the rock garden is full of interesti alpines in the full flush of beauty, and the Lil are approaching perfection. The Daffodils passing away, but silvery gleams of colour co from the Poet's Narcissi, one of the most beauti of all flowers for naturalising in grass. The Iri are beginning to flower, and every day brings some feature of interest both to botanist and g dener, whether amateur or otherwise. No bota garden in the world is more beautiful than Ke it possesses not only great scientific interest, the plants are shown under the best possi conditions.

CORRESPONDENCE.

(The Editor is not responsible for the opinio expressed by correspondents.)

A floriferous Hyacinth.—I enclose photograph (see illustration on page 240) o freak Hyacinth which may be interesting to ot readers of THE GARDEN. I should like to dr attention to the fact that it has eight spikes, ea growing direct from the centre of the bu which is perfectly free from side shoots. T freak is in the possession of J. Taylor Howso Esq., Newcastle, Staffs.—T. BENTLY, *The Garde West View, Newcastle, Staffs.*

Alpine flowers under glass.—In reply "A Lover of Alpines," page 210, I did not give list of plants simply because such a list was giv in the very issue in which your correspondent rais his original protest. I must, however, respectfu differ from him when he writes, "assuredly Sa fraga burseriana and all its varieties are not the number" that are benefited by such protecti as a cold house affords. In this your corresponde would appear to be leaning very much on t imagination; but once he has broken down prejudice and grown a few of the choice thin under glass, he will realise as he has never do before that, however beautiful and welcome the early flowers may be in the rock garden, not o half of their exquisite beauty and charm is the revealed. In the cold house, untouched by fr and saved from the pelting rains that rob them their great beauty as open-air plants, the flowe possess an enhanced beauty as well as purity tone, while remaining in presentable conditi for about double the length of time. Moreov by being brought nearer the vision, the subje appear in a new light and are open for a clos study than is possible, or at least convenie in the open. I do not claim for the cold gree house immunity from "slug molestation," but do most emphatically hold that the diminish possibilities of retreat and the increased pos bilities of the discovery of the slug are as a hundr to one chance when compared to the frame. glass structure of any description to some is abomination; to others it is tolerated as a necessa evil. For my part I see no reason why ea alpine flowers should not be gathered together protection under such a roof. It is certain better than disfiguring the rock garden by so ma sheets of glass at every turn, and all for the o thing—protection from the weather. "A Lov of Alpines" says: "I maintain that anyone m grow alpine plants out of doors without any cove ing better than with it." I agree. The co house is not concerned with *growing* the plan but merely protecting them when flowering-ti comes round. And where is the pleasure growing a plant for a year whose beauty at flowe ing-time may be sacrificed to the pelting rain-stor

of an hour or much less?—E. H. JENKINS.
[This correspondence must now cease.—ED.]

Poisonous plants in the conservatory.

The above subject, about which your correspondent "Hayward's Heath" seeks further information, is a very interesting one to me. It is some ten years now since I grew Primula obconica. Previous to that time I had never experienced any ill-effects from the plants, although I had come daily in contact with them. At the place where I was then we had a large batch of them nicely in flower, and, of course, the foliage fully developed. I had been using them for furnishing the house and conservatory. A day or two after this a nasty itching sensation commenced between my fingers, which was quickly followed by a rash on my hands and arms. It continued for several days and gradually became worse; so I consulted a doctor, who treated me for eczema. I was under his treatment for some time, but did not get any better. So I went to an old chemist who was an authority on this disease. He examined me and told me that I had been poisoned. He enquired of me my occupation, and when I told him, he said that I had been poisoned with Primula obconica. He treated me for it and cured me. He said that it was possible to be poisoned by it, although one might not have handled it. He explained how this poison came from under the leaves, and said that one might be poisoned by a puff of wind distributing the dust-like substance about the place. I have never been troubled by the P. sinensis varieties, and I do not think that P. obconica would poison everybody. I think a deal depends upon the sensitive nature of one's skin. I have seen men rub the leaves between their hands, also on their face, and feel no ill-effects afterwards. I would like to know if anyone who had once been poisoned with P. obconica had commenced to grow it again, and with what results.—EDWARD MONTAGUE, *Grey Court Gardens, Ham.*

(*Two-thirds natural size. See page* 238.)

THE NEW ODONTOGLOSSUM ROSSIANIÆ RUBENS.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS BORDERS. — Many plants will now require attention with regard to staking. Pæonies, Delphiniums, early flowering Phloxes, Pyrethrums, &c., are making rapid growth, and some support should be given them before the growths get too heavy, when rain often beats them down. In staking, the idea must be to give the plants as natural an appearance as possible. This can be accomplished in many cases by the use of twiggy ends of Pea-sticks. Bushy-growing plants should have a few sticks placed among the growths and some round the clump. To keep these together pass a string round, and it will strengthen them. As the plants advance in growth the sticks will become hidden. Lilies should have each spike staked out separately to prevent them rubbing together, which will cause bruising. Aquilegias, Campanula persicifolia, Rehmannias and other plants with the same slender growths will have a better appearance if staked out singly. The tips of brown Bamboos will be found very useful for this, and they are hardly visible. Vacancies caused by the removal of Polyanthuses, Wallflowers, Narcissi and other early flowering subjects must be filled. Antirrhinums, Pansies, Dianthus, Gaillardias and Coreopsis raised for this purpose should be planted. A few summer-flowering Chrysanthemums should be reserved to fill up the blanks that occur when Sweet Williams, Canterbury Bells and Aquilegias have finished flowering. Keep the borders well stirred and free from weeds by the frequent use of the hoe.

Water Lilies.—This is an excellent time to plant these. From 18 inches to 5 feet of water will meet the requirements of all sections. The strong-growing Marliacea varieties should be planted in the deeper water and the Laydekeri section in the shallow parts. Put some good loam in a round basket, peg the plant in it to prevent it floating, and sink it in the water. If the water can be drained off, a few stones can be arranged round the basket to hide it; this will give a more natural appearance. This cannot be done unless the water can be got in again quickly.

Bamboos.—Where new plantations are to be made or any transplanting to be done, it should be attended to at once. The site selected for planting should have been well manured and trenched previously. When the plants are in their places, a mulching of rotten manure will be beneficial to their welfare. A colony of the various species makes a pleasant retreat when planted close to a lake or pond.

FRUITS UNDER GLASS.

Early Peaches.—Draw the foliage away from fruits that are ripening to allow the sun to get at them. If the borders are dry, give them a good soaking and cease overhead syringing.

Successional Houses.—Attend closely to the tying of the growths and the thinning of the fruits in the later houses. Syringe the trees overhead freely morning and afternoon and keep plenty of moisture about the floors. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

EARLY CHRYSANTHEMUMS.—The difficulty experienced by the majority of growers this spring in securing cuttings of these fine plants has naturally kept back the planting. Nothing is to be gained by planting in a hurry plants that are not sturdy. Those who have deferred planting until now will probably have finer displays than those who had their plants out three weeks ago. Many will have to be content with old plants this year, and these not over-robust. Rich but perfectly firm soil is the most suitable for this plant.

Pentstemons.—These may now, with advantage, be planted out where they are to flower. Few flowers make a finer bed than a good strain of the large-flowered forms. Large beds are, of course, best; but where it is intended to utilise this plant for small beds, plant Newbury Gem. There are now several shades of this fine bedding plant, and also a white form.

Antirrhinums.—These, too, may well be planted now. Like the Pentstemons, they make fine effects in large beds or borders and are more brilliant in colour than the Pentstemons, succeeding, too, in drier positions. Many beautiful new shades are to be had. For most purposes the intermediate type is best, as the flowers are as fine as those of the tall sorts and less troublesome; little or no staking is required. The dwarf type is useful as edging for large beds or for filling small ones.

FRUIT GARDEN.

Peaches.—A sharp look-out must be kept for green fly on the young shoots. These soon get established if not immediately attacked and routed. An excellent remedy is to spray with a weak solution of XL All insecticide which, if applied with a spraying syringe, is very economical, as the quantity required is small. Begin disbudding quite early, and do this gradually and systematically. If a good set has been secured, thin the fruits partially at an early date.

Other Fruits.—Plums and Cherries are often attacked quite early in the season with green or black fly, and as in the case of Peaches, the earlier these pests are dislodged the better. Sometimes it is necessary to disbud some varieties of Plums much in the same way as Peaches. See to this now, as it is the weaker-growing varieties that demand this attention, and the earlier the number of shoots is reduced the better for the trees.

Strawberries.—Keep the hoe at work at frequent intervals in the Strawberry plantations. Remove runners as soon as they appear, and if the mulching to be used is litter from the stables, the sooner it is put on now the better, so that it may be thoroughly washed and sweetened by the time the fruit ripens. A slight dressing of some good artificial manure is very beneficial if given at this time. A quick-acting chemical like nitrate of soda should not be used, as I always think it spoils the firmness and flavour of the berries. C. BLAIR.

(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

DWARF FRENCH BEANS.—For general purposes this is an ideal time to commence the sowing of Dwarf Beans. Obviously it is possible to start earlier, but in many instances nothing is gained by so doing, and the chances are that something will be lost, for the young plants are extremely tender and suffer seriously from cold weather. Sown now it is most improbable that we shall get frosts sufficiently severe to do the plants injury when they are through the surface, and therefore the work should be done. Broadly speaking, these Beans are not as highly appreciated as Scarlet Runners, but they are very valuable, and no amateur can afford to omit having at least one row in the garden. The first necessity is a deep, thoroughly cultivated soil in good heart, and the second an abundance of space. Those who grow French Beans 2 inches or 3 inches asunder in the rows, as is commonly seen, have not the remotest idea of the marvellous cropping capacities of the plants or of the excellent flavour of the produce. The thinning out should be at least 1 foot, and the man who finds it in his heart to go 3 inches further will have no cause for regret; on the contrary, he will be delighted with the results achieved. It may be added that this is also an admirable time for sowing Scarlet Runners.

BEET.—This is one of our most valued salad plants, and no efforts must be spared to grow the roots to perfection. As far as soil is concerned, the grower should strive for perfect friability to a depth of 18 inches or 24 inches, according to the length of the variety that is under cultivation. To add fresh manure is an error that will probably lead on to forked and fanged roots, which are useless for exhibition, and practically so for home consumption. The grower should therefore, choose a situation which was thoroughly worked and heavily manured for the preceding crop, which will assuredly have left an ample supply of food in the soil for the Beet; dig this well and the results will be satisfactory. Draw drills 1 foot or 15 inches asunder, and in these drop clusters of two or three seeds at intervals of 8 inches, and when the seedlings are large enough to handle thin to individual plants, always retaining the weakest, provided that it is healthy, as this will give a more refined root of superior colour to the large, vigorous youngster. Growers should always keep in mind the partiality of birds for young Beet and afford protection, otherwise the necessity for thinning will disappear entirely, for the simple reason that the feathered visitors will take the lot. It is well to note that this does not apply with nearly the same force to the green-leaved varieties as it does to those with crimson foliage.

SEEDLINGS IN BEDS.—The careful grower who looks well ahead will now have a considerable number of seedlings, especially of Winter Greens, in beds, and it is essential that these shall have constant attention if the ultimate results are to be perfectly satisfactory. The neglected seedling which becomes drawn and lanky cannot develop into an excellent plant; much may be done, of course, by special care in management, but the early weakness can never be quite overcome. Always commence to thin early, and follow it up under the rule that at no period shall any plant touch its neighbours; then the progress will always be steady because of the influence of light and air, and a sturdy, hardy plant will result which can scarcely fail to grow admirably. Rather than allow the plants to become crowded, transfer them to nursery beds; packed together they not only get weak, but suffer much more seriously from clubbing. It will also be necessary to water before the soil becomes as dry as dust.

TRENCHES FOR CELERY.—In gardens where early plants are raised it is now time that the cutting of the trenches should be put in hand. The depth must be decided according to the soil, but in almost all instances a layer of manure will be required if large produce is wanted. Upon this there must be some soil, and amateurs are rather apt to use anything that comes handiest for the purpose, whereas to secure the best plants it is imperative that the soil shall be sweet and good. If new compost is not at command, use the best surface soil, never the subsoil, as is sometimes done.

H. J.

A FLORIFEROUS HYACINTH. (*See page* 238.)

SUMMER SALADS FOR AMATEURS.

THESE play an important part in the garden from June to October, and for this reason a few notes as to their culture may not be out of place. I will, however, confine these notes to those which stand extremes of weather. Frequently there are failures in the supply, and these at times arise from sowing too much at one time or not sowing a little and often. This applies with more force to the Lettuce, which is the most important salad plant during the summer months. There are now what are called long-standing varieties of Lettuce, but even these are more valuable when not sown too thickly or in great quantities.

Another point the amateur should not overlook is that salad plants to be of the best quality should be grown quickly, and to do this there must be rich soil. With poor clay soil the best results cannot be obtained unless it is improved by good culture. I have in such soil found charred refuse from the garden of great value, and one can often add other suitable aids such as leaf-mould, spent manure and wood-ashes; these will lighten and improve the natural soil. Another point not to be lost sight of is that as the season advances a cooler site should be chosen for the plants. It will also be advisable to sow in prepared drills where the soil has been well enriched with decayed manure. Sow very thinly, and then thin out the young plants and leave enough to mature. These will not run to seed in hot weather so quickly as would transplanted specimens. Even the thinnings need not be wasted as these are valuable for cutting up in a mixed salad. I am aware that the Lettuce is not the only summer salad, but it is the most important.

Of other salad plants which are not grown nearly as much as they deserve, the Corn Salad is a useful one, though probably more useful in the spring than at any other season. It may, however, be had in quantity from March to September, and if sown thinly once a month in an open quarter and given ample moisture in a dry season, it gives a good return. I find the Broad-leaved Italian the best for this work, but to get fine leafage give ample room in the seed-bed. Sorrel, also, is one of the most easily grown salads we have, and may be secured from seeds or the division of plants in the early spring. I practise the last-named, dividing yearly and destroying an old bed. The small plants, if grown in good land 12 inches apart, give a splendid return, but should be cut over at least twice a week, not allowing the tufts of leaves to brown or get tough. There are some excellent varieties of this useful plant. Chives is often overlooked, but it is of considerable value. Many do not like the strongly flavoured Onions, but the mild green Chives give a flavour few object to. If divided and planted each spring, the plants give a good return for months, and the oftener they are cut over the better the quality for the salad-bowl. On the Continent a much larger use is made of such things as the Curled Chervil, which may be sown once a month from March to August. Such useful additions as Mustard and Cress sown on a cool border fortnightly must not be overlooked.

G. WYTHES.

THE FLOWER GARDEN

A BEAUTIFUL TULIP.

(TULIPA KAUFMANNIANA VAR. AUREA.)

ONE of the earliest Tulips in flower, T. kaufmanniana, is not surpassed in beauty by any other species, although some may be more gorgeous in colour and larger in size. Its earliness is one of its chief attractions, coming as it does into flower on a sunny border early in March. A most variable species, this Turkestan Tulip ranges in colour from almost creamy white to others with golden yellow ones tinged on the outside of the petals with bright red. One of the most handsome forms is the variety here illustrated, from a photograph taken of some growing in a pan. The flowers are of a rich golden yellow inside, with a splash of red near the base, while the outer surface of the petals all but the margins are suffused with bright red. Variable in size as in colouring, the largest flower shown in the illustration has petals which are nearly 4 inches in length. For growing in pans in the alpine house, T. kaufmanniana and its varieties are among the most valuable of early flowering bulbous plants. Six bulbs in a 7-inch pan make a charming display. They should be potted up in autumn in a mixture of loamy soil with plenty of sand and a little leaf-mould. After potting the pan should be plunged in ashes to the rim in some sheltered place, and left there through the winter until the leaves and flowers begin to push up. Then it may be taken into the house to expand its blooms. After the flowers have faded they should be picked off to prevent seeding, and the pan replunged and supplied with plenty of water till growth has finished. Then the bulbs should be well ripened off. Some of the larger ones may do for another season, while the smaller ones may be planted out in a border. It is, however, always advisable to procure fresh bulbs for potting up every autumn, as those which have been once used cannot be relied on to give satisfaction a second season. In the border T. kaufmanniana is one of the easiest of Tulips to grow, and when left in the ground it will come up year after year, especially if planted in a warm, sunny position. The variety aurea is equally hardy and, with the other, is well worth a nook in the rock garden, where it would be very effective.

W. IRVING.

A NEW TULIP: TULIPA KAUFMANNIANA VARIETY AUREA.

DAFFODILS AT THE BIRMINGHAM SHOW.

LOOKING BACK.

THE death of Professor Hillhouse calls up memories of the long past. The first Daffodil show was held at the Botanic Gardens, Edgbaston, under his auspices, when Mr. Latham was curator. I can well remember many of the old varieties that were then staged and that we thought so much of. Few now can name them. Fewer still can remember them. What do John Bull, Mary, Princess of Wales, angustifolius, Her Majesty, John Stevenson and Humei represent to the majority of present-day growers and exhibitors? I should be sorry for all these relics of the past to be lost, and I intend, before it is too late, to try and make a collection of them. They will always have an historical interest, and whenever they appear in public they will be a reminder of the great change that has come about in the Daffodil as a flower. Here and there these old kinds are still to be found. When I recently visited Mr. Kingsmill's beautiful wood garden, Mrs. Kingsmill pointed out a large patch of a small, shapely yellow incomparabilis, and said, "You cannot tell me what that is." "John Bull," I said; "one of my old favourites. I did not know anyone had it besides myself." I believe after that I went up at least 50 per cent. in that lady's estimation. By the way, one wonders why such an inappropriate name as John Bull should have been given to this peculiarly aristocratic-looking little flower.

In Glasnevin Botanic Gardens is another home where many of these old-fashioned flowers are to be found. Mr. F. W. Moore still grows them, and there they may be seen cheek by jowl with Mrs. Robert Sydenham, Lord Muncaster, Lady Margaret Boscawen and White Queen. It was like meeting a friend whom we have not seen for years to see them again when I was in Dublin. What a contrast they are to what I saw at Birmingham.

MR. ENGLEHEART'S SPEECH.

The most remarkable thing at Birmingham was not, as one might naturally expect, a flower, but the remarks of Mr. Engleheart with which he opened the interesting talk after Mr. Sydenham's dinner. One knows very well that Mr. Felton considers Torch the most decorative flower we have, and that Mr. Walter Ware says that he has got the best Daffodil in the world in Queen of the West, and that Mr. Crosfield believes that there is no flower to beat Challenger with its perfect contour, brilliant colouring and massive substance. From their respective standpoints they are each of them right; but somehow we have never quite had the courage to put it into words. One hears and reads in the papers that in the House of Commons the same thing somehow or another seems quite different according as it is proposed in the form of a resolution or a Bill. Mr. Engleheart's speech put our thoughts in the form of a Bill. The Daffodil, he said in effect, is chameleon-like in its colouring and British weather-like in its form. We must remember these things. We must no longer consign "off-colours" to the rubbish-heap or quaint spidery perianths to the flame. He sat down—and "nobody was one penny the worse." Oh! shades of Glenny and Slater, is it possible that we, your descendants, could hear such talk even from such a mighty authority? Are we decadent or are we wiser? "That is the question." My answer is, we are wiser, and that the equanimity with which the president's words were heard is a sign that man's ideas of beauty are not confined as they were in the days of old, and that he is prepared to recognise types other than those which he individually thinks the highest form of beauty and the best. Mr. Bennett-Poe once told me that he has a florist compartment and a decorative department in his brain, and that he can get into one and think Frank Miles and Almira two of the best of all Daffodils, and that then we can get into the other and see nothing but Homespuns and Eosters.

THE FLOWERS.

The year 1910 will go down to posterity as the without-rubbish-year, as far as my own observation went, and from what I have since heard from others there were very few poor flowers in the whole of the show. What this means can be judged from the fact that there were about 400 separate exhibits staged.

In the trade groups the blue riband of the show went to Ireland. I heartily congratulate Miss Currey on her gold medal and her grand flowers, and my friend, Mr. Thomas Jones, on his arrangement and his vases. The whole made a splendid bit of colour, for the dear, good lady has a decided partiality for bright eyes. The Geraldine, Duke of Leinster; her new purchase, Firetail; Cossack, the red-eyed, smooth-petalled Almira; Joan of Arc, the pretty little round, red-cupped flower;

Picador and many others are cases in point. In the competitive classes Mr. E. M. Crosfield "lifted" (I think that is the football word) all the three challenge cups. Early or late seasons seem to be the same to him. He has something ready, and that something is always tip-top. At Birmingham he put up three flowers for awards, and each of them gained the coveted honour.

Challenger (see illustration) he considers the best flower he has ever raised. It is a large, flat and smooth incomparabilis type, with the perianth 4 inches across and the flat cup or eye 1¼ inches. It has a broad red band round it, which I think is a very welcome change from the all-red.

Anchorite (see illustration) is a cool-looking flower, with a large, crinkled cup of two shades of yellow, the deeper one on the edge. It has pointed, overlapping perianth segments, which are a little inclined to curve in at the edges as the flower ages.

Firetail is a large, flat-eyed variety. It is over 3½ inches across the perianth, which is a beautiful ivory white. The eye is composed of two distinct shades of red.

The first prize for Class 50 was taken by Messrs. Cartwright and Goodwin with a very good and attractive collection. They were also well to the front in the "cup" class. In their second prize lot for the Bourne Cup they had what many considered to be the gem of the show.

NARCISSUS CHALLENGER AT BIRMINGHAM. (*Much reduced.*)

White Star (see page 243).—Earlier in the day this had received an award of merit, and when I saw it on the stand later in the afternoon, with other grand flowers all about it, it seemed even more lovely than in the morning. Imagine Polestar with long, perfect, almond-shaped perianth segments of glistening whiteness and a beautiful green-eyed pale lemon cup of just the right proportion, and you have an idea of White Star.

Mr. Chapman received an award for the grand round "Poet" Kingsley. Personally, the rimmed ones always appeal to me more than the all-red ones. Kingsley is of the former type, with grand round, overlapping segments. One of our foremost dealers in "Poets" bought the stock. Need I say more? The same gentleman had in one of his collections a very remarkable large pink-eyed bloom. In texture it looked like the paste on a show Auricula. The perianth was white.

Mr. Wilson had a small target-eyed bloom, inasmuch as it had three distinct zones of colour—green in the centre, then a band of orange, and then one of yellow. I had never seen anything quite like it. There are some more distinct novelties that I must hold over for my next batch of notes. To conclude my present list I must mention Snow King, a big, tall-growing "Poet" with a good, flat perianth and a taking, well-proportioned eye. It received an award of merit, and in the single bloom class examples of it were placed first and second. Messrs. Barr and Sons were the exhibitors. Joseph Jacob.

THE NEW NARCISSUS ANCHORITE. (*Much reduced.*

WALLFLOWERS AND THEIR CULTURE.

One of the oldest flowers of English gardens and a native of some parts of Great Britain, the Wallflower (Cheiranthus Cheiri) is not likely to quickly lose the firm hold which it has on popular fancy at the present time. The plant in its wild state is a very poor-looking object, the pale yellow flowers being small and the whole plant having little in common with the many beautiful varieties that now find a home in the gardens of rich and poor alike. Indeed, one frequently meets with the best examples in cottage gardens, the flowers occasionally being associated with some quaint old Cottage Tulip that one looks for in vain among specialists' collections. In its wild state the flower is frequently found growing in the crevices of old walls, and the writer well remembers seeing it in abundance on the old Roman wall at Colchester, a wall that was built for far less peaceful purpos than to provide a congenial home for one of t most popular of English flowers.

Although the Wallflower is strictly a perenni and where extra early flowers are desired a f old plants should be retained after floweri the finest blossoms are produced by young plan and for this reason most growers treat it as a ennial. The time of sowing the seeds has f quently been a moot point among gardene some contending that the middle of May is t one and only period in which to do the work, a others staking their faith on a month later. F several years past the writer has made two sowin one at each of the periods named above, and go results have been obtained from both. The plan from the first sowing, however, have always giv slightly larger racemes. In all probability would be necessary to sow at the first-named peri in Scotland and the Northern Counties of Englan and even for the South one would advise it whe possible.

Fortunately, the Wallflower can be sown in t open, a bed that has been well dug and some li incorporated answering splendidly. The s should be raked down well and trodden firm as the Wallflower, to make the much-desir sturdy growth, must have a firm rooting mediu Frequently the plot where spring Cabbages ha been grown becomes vacant just at the time wh

Wallflowers should be sown, and there is a temptation to utilise it for the purpose. Where, however, there has been the least suspicion of clubbing in the Cabbages, this ought not to be done, as this insidious disease also attacks Wallflowers.

Drills 1 inch or so deep and 1 foot apart should be made and the seeds scattered thinly therein. If the weather is dry at the time, it is a good plan to water the drills before sowing the seeds, and should it be necessary afterwards the bed must be frequently watered until the seedlings are growing freely. When a few inches high, advantage should be taken of a rainy day to transplant the young Wallflowers, which may be put out in rows from 15 inches to 18 inches apart, allowing at least 1 foot between the plants. It is in this early transplanting of Wallflowers, more than in any other phase of their culture, that lies the secret of success. If allowed to remain crowded in the seed-bed too long, the plants become weak and drawn, and any amount of good culture subsequently will not rectify this. On the other hand, when the plants are moved early and given plenty of room, they branch freely and make beautiful sturdy specimens that will, in addition to standing well through the winter, give an abundance of first-class flowers the following spring.

The best time to transfer the plants to their flowering quarters is September, but it is not often that this can be done owing to the beds and borders being occupied with other plants. If, however, the best results are to be obtained, the work ought not to be deferred later than the middle of October, otherwise the plants will stand a poor chance of getting established before severe weather sets in. At the time of writing I have some good plants in flower that were moved in December; but the work had to be very carefully done and, fortunately, a week or two of mild weather were experienced immediately afterwards. As a rule, plants that have been properly transplanted will lift with good balls of soil and roots, and do not experience a very severe check where proper care is observed.

There are now a number of varieties to select from, but a good strain of Blood Red is difficult to beat. Unfortunately, it seems almost impossible to get this true; a few streaked flowers are sure to appear, but the true specimens amply compensate for this. Vulcan is a favourite of mine. It has a dwarf habit and is valuable for bedding, the bright brownish crimson flowers being freely produced. Harbinger is an old, brown-flowered variety that flowers early, and for this reason is worthy of a place. Cloth of Gold is a bright yellow variety with large flowers and which makes a very effective display when grown in a mass. Those who like unusual colours might try Eastern Queen, which usually gives pale red, chamois and apricot flowers, the colour changing somewhat as the blossoms age. It is a tall and rather loose-growing variety, and one that would not appeal to all tastes. H.

THE GREENHOUSE.

GREENHOUSE ACACIAS.

MANY may think the title of this note misleading, as in the South-West of England all the Acacias will flourish in the open air without glass protection, but over the greater portion of the British Isles success is impossible of attainment unless the plants are grown under glass.

Acacia dealbata.—This is the best-known of all the half-hardy Acacias, being widely grown on the Riviera, from which district great numbers of flowering sprays are imported in midwinter and hawked about the London streets. It is an excellent conservatory plant, but requires a lofty structure and hard cutting back after a few years, or it will outgrow the space allotted to it. It flowers from January onward. In sheltered spots in South Devon and Cornwall specimens may often be seen in bloom during January, but it is generally at its best about the end of March. Large examples then provide a glorious sight. At Tregothnan there is a group about 30 feet in height which is backed by Evergreen Oaks, and the golden blossom thrown into high relief by the dark foliage of the Oaks creates a lovely picture. Probably the largest specimen in the South-West is a tree at Trebah, which is 50 feet high and has a wide spread. For a long time A. affinis was considered a distinct species, but at Kew it is now considered to be merely a variety of A. dealbata. As, however, its flowers are pale straw colour instead of golden, and it does not bloom until the summer, it is probably distinct.

A. armata.—This is a sturdy shrub that bears round, golden yellow balls of flower. Its name is derived from the leaves, which are armed with prickles. In the South-West plants 6 feet high are not uncommon. The foliage is very variable, as a visit to the Temperate House at Kew will prove, for there may be seen varieties differing so greatly in their leafage that the casual observer would consider them distinct species.

NARCISSUS WHITE STAR. (*Much reduced. See page* 242.)

A. longifolia is an Acacia with long leaves, and bears rounded clusters of bright yellow flowers about 1 inch in length. It usually blooms in the spring, but is sometimes to be seen in flower in autumn. It is sometimes a shy bloomer, but the variety floribunda is said invariably to flower freely.

A. Melanoxylon is a tall-growing Acacia bearing a profusion of pale yellow flowers. In Cornwall there are examples 40 feet in height, and in the Isles of Scilly it attains a great size. It is too vigorous for the conservatory.

A. ovata.—This is usually seen as a small shrub. It has little rigid leaves, and bears balls of bright golden flowers. A well-flowered specimen 5 feet in height and as much through is a very pretty sight when in full bloom in the spring.

A. riceana.—This is a very beautiful species and well adapted for the conservatory, its drooping veil of pale yellow flowers having an extremely graceful and picturesque effect. Being a native of Tasmania, it is probably hardier than the Australian species; but its slender, drooping growth is much injured by strong winds, and it should therefore be planted in a sheltered position. A large and handsome specimen is growing against the house at Castle Bernard, the residence of Lord Bandon, in the South of Ireland. This plant was originally in a conservatory, but this was pulled down, and the example is now in the best of health in the open air.

A. verticillata is a beautiful Acacia, but far later in flowering than A. dealbata. The flowers are pale yellow, and are borne in such profusion as to entirely hide the foliage, a tree 18 feet or more in height being a pyramid of soft yellow. It is of rapid growth and needs support, as it is easily blown over in gales. Grown against a pillar in a large conservatory it is very beautiful indeed. This species also shows much variation in the foliage.

A. cultriformis is a striking plant with wide, flattened shoots, at the edges of which the bright yellow flowers appear. The stems are frequently mistaken by the novice for foliage. It is very ornamental in the conservatory, and creates quite an unique feature. There are two very large plants in the open in Cornwall, one being at Trewidden and the other at Trebah.

South Devon. WYNDHAM FITZHERBERT.

GARDENING FOR BEGINNERS.

HERBS FOR THE GARDEN.

[GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—Asparagus is now pushing up rapidly, and it will be necessary to go over the beds three times a week to cut the heads as they become long enough. The cutting of Asparagus needs to be carefully done, otherwise many young shoots that are just sprouting will be damaged. A rather long-bladed knife should be used, and this must be thrust into the soil in a slightly sloping manner, so that just the stem it is desired to cut is severed and no more. It must be remembered that the shoots all cluster together at the crown of the plant, just below the soil. A dressing of finely dressed nitrate of soda, 3oz. to the square yard, will do this crop much good if put on now. Select a showery day if possible; should the weather be dry the nitrate ought to be watered in. French and Runner Beans should be sown this week for a main crop, and owing to the very bad seed-harvest last year, it will be desirable to sow twice as thickly as usual. Germination is likely to be poor; but should the seedlings appear too thickly, thinning in their early stages can easily be done. Give Dwarf French Beans 18 inches between the rows and from 1 foot to 15 inches between the plants, according to the variety. Runner Beans and climbing French Beans should be in rows not less than 4 feet apart where two or more rows are grown. Sow the main crop of Beetroots now, for particulars of which see the calendar in the issue for April 23.

Flower Garden.—The present is an exceedingly busy time in this department. Annuals that are growing freely must be thinned without delay, so that the plants have an opportunity of developing to their fullest extent. Sowings may be made where any vacant spaces are available, as the plants resulting from these sowings will form a succession to the earlier batches. Herbaceous plants such as Phloxes and Delphiniums will need staking and tying, and if not already done, the shoots should be thinned, leaving a few only of the strongest and best placed to each clump. As early as possible now Wallflowers and Sweet Williams should be sown to provide plants for flowering another year. All too frequently these are sown at a later date, and the plants then are not large and strong enough to stand a severe winter satisfactorily. Both may be sown outdoors in well-prepared beds of soil, taking care to get a fine tilth in which to place the seeds. A good plan is to sow in drills 1 inch deep and 12 inches apart; from these the young plants will be transplanted singly when a few inches high. If the weather is at all dry, the seed-beds must be watered to encourage free germination. Darwin and other May-flowering Tulips are now opening their flowers, and where the position is very wind-swept it may be necessary to provide them with neat stakes, this applying mostly to those in beds where any deviation from tidiness is not desirable.

Greenhouses and Frames.—Though for the very earliest plants some growers make a sowing of Cinerarias in April, the present time and June are the two best periods to sow the seeds. By making one sowing now and another in June a succession is ensured, and plants may be had in flower over a correspondingly long period. These flowers have been so very much improved in habit, floriferousness and colour during recent years that no greenhouse can be considered up to date without a few specimens in the spring months. Prepare a soil mixture composed of fibrous loam two parts, coarse peat or leaf-soil one part, and sand one part, the whole to be well mixed and sifted through a half-inch-mesh sieve. Shallow pans or boxes are the best for sowing seeds of these plants, and they must be extra well drained with crocks, placing some rough material over these and finishing with a good layer of the sifted soil. Make the surface quite level with the flat bottom of a pot and then scatter the seeds thinly. These are very small, and will only need covering with a sprinkling of sand. It is advisable, after watering gently with a very fine-rosed can, to stand the pans or boxes in a warm greenhouse and cover each with a pane of glass until the seedlings appear, after which remove the coverings and stand in a cold frame,

1.—A YOUNG PLANT OF FENNEL OBTAINED BY DIVIDING UP AN OLD STOOL. PLANTS OF THIS DESCRIPTION ARE PLANTED SO THAT THE CROWN, WHENCE GROWTH IS MADE, IS JUST BELOW THE SURFACE SOIL.

taking care to shade from bright sunshine. When large enough the seedlings will need pricking off, and this will be referred to in due course. A. A.

HOW TO GROW RIDGE CUCUMBERS.

If the summer weather is quite up to the average as regards heat, many dozens of very fine Cucumbers may be grown on a few plants only in the open borders. I have obtained very nice crops from plants grown between rows of Gooseberry and Currant bushes; but, of course, the plants were not regarded as the main-crop ones. If certain detail work be carried out, as I will explain in this note, there will not be any more difficulty in the growing of satisfactory crops of Cucumbers than Vegetable Marrows. It is necessary to place the seeds in a fairly brisk heat, in order to induce early germination; but directly the first pair of rough leaves appear, the plants must be grown in a cool frame, frost only being excluded. will not be necessary to ventilate very freely; sufficient moisture is maintained in the fra and it is kept fairly close, the young plants w grow sturdily, but the watering must be do very carefully.

In the meantime the permanent open-air be must be prepared. Nothing in the way of ho beds will be needed, but some well-rotted manu should be dug into the soil so that flat-toppe ridges, about 3 feet wide and 9 inches high, a raised. The position should be a sunny one, a ideal place being on the south or south-we side of a wall or fence. Put out the young plan about the end of the first week in June. Pla them 2 feet apart in zig-zag fashion on the pr pared beds; in this way the whole surface of th bed will soon be covered with fruit-bearing branche Directly the side shoots commence to spread o freely, some short but clean strawy litter shou be neatly laid on the soil under them. In th way the fruits are kept clean and the surface s from unduly drying. I think beds so treate always look very neat, and the plants seem thrive better. Pinch off the end of each ma stem when it has grown about 18 inches long side shoots will soon grow out, and Cucumbe will form on them. Every shoot must also stopped at two joints beyond the young frui formed on it. In this way a nice succession Cucumbers will be secured. Peg down the ste to prevent the wind dislodging and breaking the Apply water with care; give plenty when it required, but avoid wetting the surface only a leaving the soil below dry. Feed the plants wh the first fruits are swelling freely. Prolific Ridg Long Prickly and Stockwood Ridge, especial the last-named, are good varieties. SHAMROCK.

PLANTING HERBS.

THE practice of planting herbs in many of th smaller kitchen gardens has largely fallen in desuetude in more recent years, and it is a matt for regret that their uses are so little understoo by many of the present generation. It may due to the facilities now afforded of purchasi from the local greengrocer what is required this way; but then it should be remembered th only a very few of the better herbs can be obtain from this source of supply. One subject that less frequently seen now than formerly is Fenn known to botanists by the name of Fœniculu vulgare. Its native habitat is Southern Europ including Great Britain. It is a perennial pla and of the simplest possible culture. T beginner may be in doubt as to the uses to whi Fennel can be put. As a matter of fact, its foliag which is distinctly aromatic, is used for flavouri fish sauces, and the seeds of the plant for flavouri liqueurs. When gathering the crop the younge and freshest leaves only should be selected. Plan may be raised from seeds or increased by divisi of the roots. It is customary to sow the seeds spring, and a small annual sowing is observed many gardens. Sow the seeds in shallow dri 1 inch deep, and observe a distance between t rows of 18 inches to 2 feet. The seeds should sown at intervals of about 15 inches in the ro Thin out the seedlings before they get too big

Division of the old roots is frequently practis where the demand for this herb is limited. T spring is the best time to carry out this operatio

2.—MARJORAM, AN INDISPENSABLE SWEET HERB. OLD PLANTS, SUCH AS REPRESENTED, MAY BE INCREASED BY BREAKING THEM UP INTO SMALL GROWTHS WITH ROOTS ADHERING, AS SHOWN ON THE RIGHT OF THE ILLUSTRATION.

lost old plants when lifted will divide into pieces ery similar to that shown in Fig. 1. These ivided portions should be planted about 1 foot sunder in rows rather less than 18 inches apart. he ground should have been deeply dug over eforehand, as the planting is made easier in onsequence.

The Pot Marjoram is probably better known to ost readers than many other herbs. It is a ery useful plant, and well merits a place in all ardens where herbs are valued. It is a perennial, nd is known by the botanical name of Origanum nites, and was first introduced into Britain from icily in 1759. Young leaves and shoots are tilised for flavouring and seasoning purposes, nd should be gathered as required. The matured rop may be gathered when in bloom, and after arefully drying should be reduced to powder, nd subsequently placed in stoppered bottles for se during the winter season. If more convenient, he shoots may be gathered, tied in small bunches, nd hung up in any dry quarters in the autumn onths. Seeds may be sown now in shallow rills 1 foot apart, and later on the seedlings should e thinned out to a similar distance in the rows. eaders having old plants such as are depicted Fig. 2 should divide them forthwith, and each hoot with a few roots adhering, such as is epresented on the right of the illustration, will, replanted, quickly develop into a useful lant of good dimensions. Plant these divided ortions 1 foot apart each way. D. B. C.

HEAT IN GLASS HOUSES.

How to Regulate It.

ow the weather is becoming warmer, less artiial heat will be needed in the glass structures; ndeed, it may be entirely dispensed with in many ouses, such, for instance, as greenhouses where onal Pelargoniums, Fuchsias and Begonias are hiefly grown. The heat from the sun can be usbanded, and will prove quite sufficient for he plants' requirements. In such circumstances heated pipes would do more harm than good, besides being a waste of fuel. Heated pipes dry up the atmosphere very much, and where this condition obtains the plants do not thrive; they are also more subject to attacks of thrip, red spider and other insect pests. The ventilators need not be quite closed at the top of the house all night. If the ventilation is gradually reduced in the afternoon there will be sufficient heat for the well-being of the plants.

Now, we cannot discuss the question of artificial or natural heat without that of moisture, and in the case of the cool greenhouse some damping down of floors should be done every fine morning, and again about noon, but not later, as a reaction takes place later, and then there is quite enough moisture in the structure during the night.

In warm houses, where such kinds of plants as Crotons, Dracænas and stove subjects generally are grown, some heat from fires must be maintained during the night-time and on cold, sunless days. When the day promises to be fine, the fires may be drawn at nine o'clock in the morning and be re-lighted again at six o'clock in the evening. The heat from the pipes will prove acceptable when that from the sun is failing as darkness sets in. Thus there will be economy in fuel and efficiency in heating where it is necessary to maintain a rather high temperature for heat-loving plants. Shamrock.

DAFFODIL GROWING IN AN OLD TEAPOT.

I have had taken the accompanying photograph of Narcissus growing in a teapot in our cottage window here, and thought you would like to reproduce it in your paper, as showing what can be done with these very accommodating bulbs. It is grown in ordinary fibre, and was planted last January.

Potters Bar, N. D. Bignell.

THE TOWN GARDEN.

Rock Gardening.—Probably no phase of domestic horticulture creates more interest than that of rock gardening, and probably also none in which so much interest may be concentrated in a small space. That the reader may have no misgivings in the matter, one has but to refer to the rock gardening at Kew, where it is carried on year after year with no little success amid conditions that no one with a knowledge of the subject would regard as ideal.

The Miniature Type.—With space of necessity limited to perhaps a few square yards, the question arises as to which of the varying types would be best, and I have no hesitation in recommending, preferably, a miniature form, which might also, if needs be, embrace a combination of rock and water gardening. Indeed in the mind's eye there exists one which in addition has a tiny bog garden, the whole occupying a space not larger than an ordinary dwelling-room. The cemented pool of slightly irregular bath-like outline, fed from a screened iron tank, is in the background, the overflow water from which feeds the low-lying bog-bed, the irregular and two-sided rockery facing the last-named on one side and an adjacent walk on the other. The rockery boasts of both sunny and shady aspects, which are of considerable importance.

The Bog Garden.—This portion from its highest point, where it is 3 feet wide, leads off in rivulet fashion and widens as it meanders and extends, till at its lowest point a peaty bed of 5 feet across is seen, which contains Lilium pardalinum, Hepaticas, Trilliums and other suitable plants. In the upper reaches Primula rosea, P. Sieboldii Gentiana verna, Anemone robinsoniana and the like find, with others, a congenial home. In the water-pool Nymphæas odorata vars., N. marliacea carnea—which will presently be too large—and Sagittaria are seen, Butomus and Menyanthes occupying the wet ground near the overflow outlet.

The Rockery.—This also has its complement of suitable things, Ramondias and alpine Primulas in variety appearing prominently on the shady side, while Sedums, Saxifrages of the mossy and encrusted sections, Cobweb Houseleeks, the smaller Dianthi, Acantholimon, Arenaria, Gypsophila cerastioides, Hare-bell and other Campanulas, Androsace Chumbyii, A. sarmentosa and A. lanuginosa, with hardy Opuntias and others, appear on the sunny side, and as showing the comparatively representative character of the whole, such shrubby Veronicas as lycopodioides and salicornioides also find a place, while demonstrating that not a little thought and care has been exercised in the arranging and selection of the more suitable plants. In the construction of these miniature types of combined rock and water garden it is important that the more diminutive or compact-growing subjects be selected, and as there are numbers of such things, it is but a matter of choice. For example, should any reader possess an idea towards specialisation, he may indulge to his heart's content in the encrusted Saxifrages and their near allies for the sunny aspect and the alpine Primulas for the slightly shaded one, while at one turn he would have embraced two of the finest genera to be found among alpine vegetation.

Soil Provision.—For the two groups named the plants generally will be found to thrive in gritty loam, a not inconsiderable number not objecting to an addition of old mortar with the soil. For all of these plants small pockets of soil or crevices where soil may be trickled into to the depth of 1 foot will suit admirably, the rosettes of leaves meanwhile resting on the ledge of rock itself in imitation of Nature. It is in planting so as to make the rock garden appear as natural as possible that much of the art of this phase of gardening lies. E. H. Jenkins.

A NOVEL USE FOR A TEAPOT. THE NARCISSUS IS GROWING IN MOSS FIBRE.

THE ROSE GARDEN.

RAMBLER ROSES IN POTS AND THEIR MANAGEMENT.

THE beautiful densely flowered pot-grown specimens of these popular decorative Roses are now grown so extensively by various commercial florists that they have quite altered the appearance of our floral displays, more especially during the late spring and early summer. Although readily procurable, many would find much delight in growing their own specimens instead of purchasing them in bloom. The large growers formerly grafted their plants, and these plants made tremendous lengths of growth, but the flowering was not always a success. They have long since found that plants potted up from the open ground, especially if they are on their own roots, two years old, and have been cut back in the spring of the second year, give the best results, for such plants are bushy and have several shoots of moderate length rather than two or three very long ones. Such plants potted up in the autumn are brought under glass in the spring, moderately pruned and given a good warm temperature, where they quickly develop into fine plants and fill their pots with an abundance of roots. It is, however, during the following season that these plants are seen at their best, when, after a summer and autumn outdoors to promote ripening of the wood, they are top-dressed and are ready for forcing, or rather, for putting into a temperature of about 50° in January or February, because the Rambler Rose resents strong forcing heat at first.

The best trails of bloom are obtained from growths made under glass the previous season, and these must be well ripened. There is no need to have a lot of these growths. It is best to retain two or three of the finest and one or two of the older growths that bear several laterals, these latter being cut back hard, even to the second eye. Brisk syringing on fine mornings and careful watering at the roots will be necessary, and an early application of some good fertiliser should be given, pointing this into the surface soil with a label. Allow the growths ample space, tying them, if necessary, to two or three Bamboo canes, and when the new shoots become very dense remove some of the most weakly growths. As these increase it will be found that the roots absorb large quantities of water, even so much that on fine days one needs to water the plants three or four times, especially when they are approaching the flowering stage.

The advantages of these bushy plants will now be seen, for instead of weakly trails from the extra long grafted plants, we have those grand growths which yield such beautiful long trails that even one of them is a shower bouquet in itself. Liquid manure must be given freely just before the flower-buds show colour, and when the first bud is opening remove the plants to a cooler temperature where they may develop their flowers more slowly.

Needless to say, the wichuraiana tribe may be trained in all ways, and very pretty they are, too, in flat V-shaped specimens, which the decorator knows only too well how to use to the best advantage. Personally, I prefer the columnar form with a semi-drooping top, made possible by allowing 2 feet or 3 feet of the top part of the growths to droop over with the weight of bloom. These plants after flowering are most useful to plant out for a quick effect on a pergola, or they may be grown under glass for a time, repotting them, if needed, preparatory to flowering another season. It should be remembered that Rambler Roses grown in pots are best if rather cramped at the root, and a 10-inch pot will be ample for quite a large specimen. Of course, huge specimens may be obtained by growing the plants in tubs; but these are rather unwieldy. The beautiful little dwarf-growing Polyanthas, such as Aschenbrodel, Baby Dorothy, Mrs. Cutbush, &c., should be also grown to associate with the Ramblers. Some of the best Ramblers are Crimson Rambler, Philadelphia Rambler, Flower of Fairfield, Tausendschön, American Pillar, Hiawatha, Delight, Blush Rambler, Dorothy Perkins, Lady Gay, White Dorothy, Grüss an Zabern, Minnehaha and Goldfinch. P.

OPENING OF THE MIDLAND DAFFODIL SHOW AT BIRMINGHAM.

The Lord Mayor, Rev. J. Jacob, Dowager Duchess of Sutherland, Lady Mayoress, Rev. G. H. Engleheart and Mr. Robert Sydenham. On the extreme right is Mr. H. Smith, Secretary of the Society.

DELICATE ROSES, 1908-9.

IT may be of interest to note that the following varieties of Roses proved delicate at Wisley, and, if not killed, were very severely injured. Each variety is planted in clumps of twelve, and the plants had stood where they were for three years. It should be said that the frost at Wisley was very severe, zero being registered by the grass thermometer. Mrs. Edward Mawley was one of the worst—practically all the plants were kil Marquise de Salisbury was another that severely affected; Niphetos, well known a tender variety, maintained its bad reputati Papa Gontier had always succeeded well, stood the winter well, but 32° of frost proved too much for it at Wisley. Safrano has alw been a favourite of ours because of its charm buds, but about half the plants were killed. liam Allen Richardson was killed entirely, almost the same may be said of Exquisite, o one plant being alive out of twelve. Both P des Jardins and its climbing form suffered ba and Grace Darling, which is generally so ha and vigorous, lost half its number. Mme. Cad Ramey, Gottfried Keller, Princess Beatrice Princesse de Sagan were nearly all killed, and e of La France 25 per cent. died. It seems to that the last-named is not so satisfactory a used to be. It is the first to be attacked by r and a very large proportion of the buds ne expand, but rot on the plants. Not only Wisley, but in many other places, it behaved the same way, and as there are so many perfec hardy and lovely varieties that are thoroug satisfactory, we are seriously thinking of carding this old favourite. It should be sta that all the Roses named above were dwarfs the Briar stock.—*Journal of the Royal Hortic tural Society.*

THE EDITOR'S TABLE.

BEAUTIFUL ANEMONE FLOWERS.

A charming series of Anemone flowers co from Colonel Robinson, Oswald, West Lulwo Dorset. We have never seen a richer variety the colouring, including self shades as well exquisitely tender hues. We congratulate sender on his success in gaining new and beauti colourings, among these the "Poppy" type Anemone. Our correspondent writes: "In acco ance with your many notices, as an amateur a a lover of Anemones I venture to send you a box blooms from my border. I have never seen show of Anemones, and am quite ignorant what is good or otherwise. I have raised nea all I have myself mostly from seed, and have outside help. I shall, therefore, be greatly oblig if you will state in your paper a criticism of offering. (*a*) As to whether the blooms are go of their kind; (*b*) as to whether these examp are of a good or average class. I may add th all my plants are very luxuriant in their grow and throw an immense number of blooms, and th these are only a sample of some of my favourites."

FANCY PANSIES FOR BEDDING AND EXHIBITIO VIOLAS.

Messrs. Dobbie and Co. of Rothesay, the we known nurserymen, send a remarkable series Pansies and Violas for bedding and exhibitio The flowers are not like the Tufted Pansies we familiar with, but large and beautifully coloure reminding one of the Heartsease in the old gard at home. It is impossible to describe the variet sent in the space at our disposal, but all were beau ful, the list comprising Mrs. A. Hervey, Kin cup, Miss A. B. Douglas, Mary D. Fitzpatric Mr. H. Stuart, Kitty Bell, Mrs. J. Lindsay, A. Martin, Agnes Kay, Robert Menzies, Redbra Yellow, Mary Burnie, Blue Cloud (a charmi garden Pansy), Mrs. Chichester, J. H. Watso George Dunn, Mrs. J. H. Rowland, True Blu Maggie Mott, Mrs. R. Fife, Mrs. J. Sellars, To M'Callum, Mrs. Campbell, Duchess of Argy Millie Farmer, A. C. Walker, John Cunningha Kate Houston, Wm. Lockwood, Purity, Mose

Perfection, Bullion (one of the best of the garden Pansies), Mrs. H. Kinross, Meg Walker, Duke of Argyll, Jenny Morris, Nellie Currie, Annie D. Lister, Tammie, Robert Melville, Rev. D. R. Williamson, Klondyke, Mrs. R. P. Butler, Nellie Chapman, Lizzie Storer, Duchess of York, Snowflake, George G. Murray, General Baden-Powell, Mrs. H. Pearce, Mrs. Alexander, Mrs. J. M'Crae, Nellie Campbell and Dr. McFarlane. Pansy enthusiasts, if they have not these varieties, should add them to their collection.

EDWARDSIA MICROPHYLLA FROM SOUTH DEVON.

Mr. Wyndham Fitzherbert, Kingswear, South Devon, sends us two flowering sprays of the rare shrub Edwardsia (Sophora) microphylla. According to the "Kew Hand List," this is a variety of the better-known Sophora tetraptera, a native of New Zealand. Mr. Fitzherbert writes: "I am sending you some flower-clusters of Edwardsia (Sophora) microphylla. It is a rare shrub, as it is only once mentioned in the last sixty volumes of THE GARDEN. The clusters of blooms, borne in terminal panicles, are of a bright yellow colour, which is relieved by the harmonious association of the browner yellow of the calyx, which again deepens into the still browner peduncle. The shrub from which the blooms were cut is about 6 feet in height, and is carrying considerably over a hundred flower-clusters, some of which are composed of as many as fifteen blossoms. A few weeks ago it was terribly injured by a severe south-westerly gale, which browned every leaf as if it was seared by fire, and I was afraid it might die, but the buds continued to expand and new leaves are now showing on the branchlets. The first few years after planting it made rampant growth but showed no sign of a flower, and I thought it might bloom if its roots were confined, so I dug down to a depth of 4 feet, at a distance of 2 feet 6 inches from the stem, and filled in the wide trench thus made with stones up to the level of the surface soil. The next year it showed a few blossoms, and every year it has bloomed better. As stated above, this season it is covered with flowers, and makes an exceedingly pretty picture. The blossoms are slightly over an inch in length, and are but little smaller than those of the better-known E. grandiflora."

NEW PLANTS.

OSMUNDA PALUSTRIS CRISPATO-CONGESTA.—This is the very full and descriptive name of a useful addition to hardy Ferns, the newcomer being a seedling variation of the typical species. As shown the plant was shorn of the drooping grace which characterises the original, and in place thereof was seen a plant of sub-erect or spreading habit of growth, the parts being modified or reduced by a natural dwarfing process, which is responsible for the congested or denser habit of growth which doubtless gave rise to the last of the varietal names borne by the plant. We think highly of this novelty because of its distinct bearing. Shown by Messrs. H. B. May and Sons, Edmonton. Award of merit.

Polyanthus Ladhams' Brilliant.—A strong, vigorous-growing plant, producing large trusses of handsome crimson, yellow-centred flowers. Shown by Messrs. Ladhams, Shirley, near Southampton. Award of merit.

Hydrangea Hortensia Mme. Emilie Mouilliere.—A nearly pure white-flowered variety that should prove of service. Exhibited by M. E. Mouilliere, Vendome. Award of merit.

Hydrangea Hortensia Ornament.—This is a whitish-flowered variety suffused with pink, and is rendered distinct from all by the acutely notched petals, which impart a decidedly ornamental appearance to the plant. Shown by Messrs. James Veitch and Sons, Limited. Award of merit.

Macleania insignis.—A Mexican plant of considerable beauty and interest. The reddish scarlet flowers are drooping, cylindrical, with a five-toothed limb, borne in terminal corymbose panicles, and each 1¾ inches in length. The leaves are of considerable texture, ovate, and at the ends of the branches assume a bronzy red tone that is most attractive. The plant is of an evergreen character and requires greenhouse treatment. Shown by Messrs. J. Veitch and Sons, Limited. Award of merit.

Schizanthus grandiflorus Veitch's Strain.—An award of merit was granted to a highly meritorious strain of these beautiful flowering annuals. Shown by Messrs. J. Veitch and Sons, Limited, Chelsea.

Anemone nemorosa Allenii.—The most handsome variety of the blue-flowered Wood Anemones, of which A. n. robinsoniana is typical, the nearly pure sky blue colouring of the petals rendering the plant of the greatest value. The flowers are nearly twice the size of the popular variety named, and the plant, far exceeding it in vigour, is successional to it in flowering. A plant of great beauty. Shown by Mr. Amos Perry, Hardy Plant Farm, Enfield. Award of merit.

Carnation Mrs. C. F. Raphael.—The colour of this handsome fragrant novelty approximates to rose pink in a flower which for size surpasses any Malmaison variety of our acquaintance. It is indeed a handsome thing, quite distinct, and, having a stiff stem proportionate to the size of the flowers, will be welcomed by all. Shown by Mr. H. Burnett, Guernsey. Award of merit.

Auricula Canary Bird.—The best yellow fancy variety we have seen, and a great advance upon existing varieties of the same colour tone. The exact shade is golden canary, the handsome flowers with well-defined paste being of perfect form.

Auricula Dorothy Cutts.—A saffron-coloured variety, shaded bronzy pink, and quite a new shade in the Auricula. The shapely flowers, too, are of large size. The variety has a good white paste.

Auricula Mai.—The handsome flowers are of crimson-red shade, the pure white paste rendering the predominant tone all the more conspicuous. The whole of these Auriculas were raised and exhibited by Mr. James Douglas, Great Bookham, Surrey, and each received an award of merit.

Narcissus Cooksoniæ.—A Leedsii triandrus hybrid probably, with shapely creamy white flowers, the segments of the perianth being well formed and quite overlapping. From Mrs. Norman Cookson, Wylam-on-Tyne. Award of merit.

Narcissus Colleen.—One of the most distinct novelties seen this season, in which the Engleheartii and Poeticus recurvus characteristics are fairly well blended. The perianth segments are those of a glorified Poeticus recurvus, those less white than in the original, and of almost perfect outline, while the flattish crown margined with yellow and shaded a paler yellow presently assumes a deep green colouring, which is as conspicuous as it is distinct. Shown by Messrs. R. W. Wallace and Co., Colchester. Award of merit.

Cattleya Mendelii Pearl McBean.—It is quite pleasing to get a beautiful variety of this well-known Cattleya with so charming a name after the monstrosities that Orchid-raisers are apt to encumber their plants with. The flower in question is a glorified form of the type, with extra large petals and lip, the latter being richly coloured and beautifully marked, the yellow and purple being well defined. Shown by Messrs. J. and A. A. McBean, Cooksbridge, Sussex. Award of merit.

Odontoglossum crispum Magnum Bonum.—A very light-flowered form of this well-known Orchid, and one that evidently possesses freedom of flowering as well as beauty. The blossoms are large, of true crispum shape, the pure white ground of the sepals having a few pale brown dots placed near the centre of each segment. The white of the petals is unsullied, but the labellum has a yellow blotch as well as a few brown dots. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Tetbury, Gloucestershire. Award of merit.

Cattleya Dusseldorfei Undine Westonbirt variety.—This is an almost pure white variety, no colour being present on the sepals and petals, which are very opaque. The labellum has just the faintest tinge of pink and primrose in the throat. The flowers are large and the plant is very free. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Tetbury, Gloucestershire. First-class certificate.

Odontioda Charlesworthii Theodora.—This is the richest-coloured Odontioda we have ever seen, and, in addition, the plant appears to be very vigorous and the flowers large. The colour may best be described as very rich crimson, which shows a decided scarlet tint when placed so that strong light shows through the segments. Shown by de Barri Crawshay, Esq., Rosefield, Sevenoaks. First-class certificate.

Miltonia bleuana Hessle variety.—This is a very fine variety indeed, the flowers being large, of good shape, with a rich crimson blotch at the base of the labellum in place of the usual mauve. A slight mauve tint is present at the bases of the two petals; otherwise the pure white ground is unsullied. Shown by W. P. Burkinshaw, Esq., The West Hill, Hessle. First-class certificate.

All the foregoing plants were shown before the Royal Horticultural Society on the 3rd inst., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Narcissi diseased (*F. H. P.*).—The Narcissi are affected with the yellow stripe disease. It seems probable that this disease is of bacterial origin, and there is no known cure. You might try what a dressing of superphosphate put on towards the autumn will do. Use about 4 cwt. to 6 cwt. to the acre. N. princeps and some of the broad-leaved forms are particularly prone to this disease.

Lily stem for inspection (*L. W.*).—No insects or fungi are present to account for the death of the Lily stem. It seems probable that the stem was bitten by some creature, such as a slug, and that bacteria afterwards found their way in and completed the decay.

Plants for bed on lawn in comparative shade (*Wyandotte*).—We gather that you wish to have your bed planted with attractive flowering plants during the summer only, leaving the bed open afterwards to be planted with bulbs and spring flowers. These conditions considerably narrow down the list of plants to choose from, confining it chiefly to half-hardy, tender bedding and annual plants. The Viola would succeed admirably in such a position

as it likes partial shade and a cool, strong soil. If the seeds were frequently picked off the plants during summer, t would give you a very pleasing and subdued succession of bloom in shades of blue, mauve, yellow and white from May to October. White Marguerites, small plants planted rather close together, with scarlet Gladioli planted between at distances apart of 1 foot would produce a telling and brilliant effect for a long time. The Gladioli should first be rooted in pots ready for planting out with the Marguerites at the end of May. Pansies would succeed well. The giant forms of these are very attractive and the colours rich and varied. Verbena Miss Willmott is a free, strong-growing variety, the colour being a delightful soft pink. A mass of this gives a most pleasing effect. Tuberous-rooted Begonias succeed well in partial shade, but the soil would have to be improved and made lighter for these. If you wish to plant a permanent plant, we would suggest Clematis Jackmanii. This trained over a low wire trellis and made to cover the whole surface of the bed at the height desired would produce a rich purple effect for many months in summer and autumn. It likes a strong soil and a cool aspect.

Replanting forced bulbs (*Somerset*).—It is best to allow the bulbs to dry off by placing them in an open shed outdoors or laying the pots on their sides; then later on, just place them in a shady place in sandy soil, and finally plant them out in early autumn.

Canvas *versus* **rubber hose** (*Hose-pipe*).—If you obtain a good quality rubber hose, it will last longer than canvas for ordinary garden work. A great point in using hose-pipes, to make them wear well, is to be very careful to avoid twists or kinks when moving them about. It is also advisable to roll them on a cylinder when not in use rather than coiling them up and hanging them on a nail or other support. The kind of hose known as armoured hose is very useful and durable. It is protected with strong wire arranged spirally on the outside throughout the whole length.

THE GREENHOUSE.

Camellia buds not opening (*M. P. A., Tyrone*).—It is impossible to give a reason for some of your Camellia buds not opening properly, as many of the other flowers have opened well. Perhaps a little heat would assist them to open. This sometimes answers in the case of large-bloomed varieties. When the plants are too wet at the roots, flowers frequently fail to expand as they ought to do; but that can hardly be the case with yours, as other flowers have opened well. It is probable that a little artificial heat is necesary. You had better commence again with Cytisuses and Genistas, for they never answer satisfactorily if cut back into old wood after they have once become old and leggy. Young plants can be purchased very cheaply.

Paint on hot-water pipes (*M. F. D.*).—The pipes must be kept very hot if the fumes therefrom injure the plants immediately above; or have the pipes been painted with some unsuitable composition which gives off fumes harmful to the plants? We know of no composition to prevent the heat rising from the pipes; indeed, such a thing would be received with disfavour, as the object of hot-water pipes is to heat the structure. If the pipes have been painted with any composition of the nature of tar, one can readily understand fumes being given off; but if only the usual coating of lampblack and linseed oil is applied, no harmful fumes emanate therefrom. If it is simply heat from the pipes which does the damage, then a smaller fire must be kept in the boiler. The best suggestion we can make, if, owing to the open stage, the plants are too near the hot pipes, is to lay some slates on the stage and put a layer of shingle about 1 inch deep thereon. The plants can then be stood on the shingle, which will serve to hold a certain amount of moisture and prevent the plants from being dried up.

Geraniums for inspection (*E. M. W.*).—Your Geraniums are attacked by what is popularly termed the spot, a fungoid disease whose ravages seem greatly on the increase. Highly fed plants are more liable to its attacks than those which have been grown in poorer soil. Dusting with sulphur will sometimes effect a cure, or spraying with a solution of permanganate of potash is often effectual. It must also be borne in mind that a free circulation of air is a great help towards combating the disease, and so is direct sunshine. These last two items tend to solidify the tissues of the leaves, and consequently the spores of the fungus have much less effect upon them than on plants whose foliage is so particularly soft as the leaves sent by you appear to be.

Metrosideros shoots for inspection (*F. M. N.*).—Several of the shoots of Metrosideros floribunda which have arrived for examination are quite dead, and the others somewhat crippled. We advise you to cut the plants back at once to where they are alive. Ascertain whether the soil about the roots is quite moist, and if not, give it a good soaking. You may afterwards apply a surface dressing of half-decayed leaves, but do not give anything of a strong feeding nature. It is probable that with better weather the plants will commence to grow again, but it is rather doubtful whether they will prove successful at Tunbridge Wells. If you have space on a south wall to spare, one would probably succeed in the position. Continue the protecting work in the event of severe weather next winter.

TREES AND SHRUBS.

Heimia myrtifolia (*Robert Gurney*).—The plant you refer to as Heimia myrtifolia is, correctly, Nesæa myrtifolia. It is a native of South America, grows about 5 feet high and bears rather small yellow flowers. In America it is said to form an ornamental bush, but in English gardens it has usually proved disappointing. In some parts of the country it may be grown out of doors, but it is quite likely that you would have to place it in a cold house in Norfolk. Your best plan would be to try a plant indoors and another outside at the foot of a south wall. Loamy soil will be found to be suitable. The Nesæas, of which two or three species are known, may be increased by means of cuttings in summer.

Pruning double-flowered Gorse (*H. G. Hawker*). You may cut your double-flowered Gorse back with safety as soon as the flowers fade. It can be kept moderately low by going over the plants annually and removing the longest shoots. This removes the necessity of cutting it hard back every few years.

Rhododendron for name and information (*A. M. B.*).—The specimen you send for name is Rhododendron formosum, a Himalayan species. There is really no difference between Azalea and Rhododendron. Botanically the former name is not recognised now, and the plants which were at one time known as Azalea are now included under Rhododendron. It is, however, usual to call the deciduous kinds of Rhododendron Azaleas in gardens, while R. indicum is generally known as Azalea indica. Your plant may be cut back moderately hard at once, and be stood in a moist and warm house until new shoots appear. When these are half an inch long the plant may be repotted, taking care to drain the new pot well and provide a compost of sweet soil composed of lumpy, fibrous peat with a good supply of sand. Do not give a very much larger pot than the one the plant occupies at the present time, and as soon as it is established in the new soil remove it to a cooler house. When potting make the soil firm about the old ball. You may increase the plant by means of cuttings of semi-ripe shoots, 3 inches to 4 inches long, inserted in pots of sandy peat in a close propagating-case during summer.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

ORCHID COMMITTEE.—MAY 3.

PRESENT: Mr. J. Gurney Fowler (chairman), Messrs. Harry J. Veitch, James O'Brien, H. Little, W. Boxall, Stuart H. Low, de B. Crawshay, H. Brooman White, J. Wilson Potter, W. Bolton, Gurney Wilson, W. H. White, H. A. Tracey, H. G. Alexander, Arthur Dye, W. P. Bound, W. H. Hatcher, Walter Cobb, F. J. Hanbury, F. Menteith Ogilvie, A. A. McBean, T. T Clifton and J. Charlesworth.

Messrs. Charlesworth and Co., Hayward's Heath, staged a small but most interesting group of well-flowered and choice plants, the whole being in first-class condition. Among the most interesting and lesser-known subjects were Acineta Humboldtii, Bulbophyllum Lobbii, Phaius maculatus, Capanemia uliginosa (a tiny plant with creamy white flowers), a fine specimen of Dendrobium dalhousieanum and the curious little Octomeria diaphana. Silver Flora medal.

The group exhibited by Messrs. Sander and Sons, St. Albans, was also a rather small one, but, notwithstanding, contained some well-grown and interesting plants. Among those that called for special mention were the yellow-flowered Dendrobium velutinum, Masdevallia courtauldiana, Cœlogyne corrugata, Lælio-Cattleya Minerva (with primrose-coloured flowers) and L.-C. choletiana (a large and well-grown specimen with mauve-coloured flowers). Silver Flora medal.

A very fine specimen of Cypripedium rothschildianum Chortman House variety was shown by J. B. Joel, Esq., Childwick, Bury St. Edmunds (Orchid-grower, Mr. E. May). This had six large flower-spikes and a total of twenty-four fully developed large flowers, as well as a number of buds. It reflected great credit on Mr. May. Silver medal.

Mr. C. F. Waters, Deanland Nursery, Balcombe, ha small group of well-flowered plants, composed for most part of Cattleyas, with a few Odontoglossums in mixed, none of which was named.

Mr. Maurice Mertens, Mont St. Amand, Belgium, sho several fine plants of his famous Odontoglossum hybr as well as a few examples of Miltonia, two of the la being very highly coloured indeed.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, showing several good plants, including a good specim of Cœlogyne pandurata and two very fine Cattleyas.

C. Rogerson, Esq., Oakdene, West Didsbury, Ma chester, exhibited several Cypripediums and a g Odontoglossum, this being a variety of crispum nam Oakdene Gem and belonging to the heavily mott section. Cypripedium niveum Oakdene variety is almost pure white flower of good shape.

Messrs. J. and A. A. McBean, Cooksbridge, Suss staged a small group, which contained some very f Odontoglossums and also a beautiful Cattleya Mende named Pearl McBean.

Mr. Charles Turner, Royal Nurseries, Slough, stag several interesting and well-grown plants, such as Bifrena purpurascens, Miltonia flavescens, Cattleya intermed and Cymbidium lowianum, the plants in each instan being large and well-flowered.

H. S. Goodson, Esq., Fairlawn, Putney (gardener, M Day), put up a small but good group of plants, amo which we noticed Brasso-Cattleya Queen Alexandra a Cattleya Schroderæ alba.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Cheal, F. Perkins, A. Dean, Edwin Beckett, G. Hobda A. R. Allan, H. Markham, H. Parr, John Lyne, P. Tuckett, Charles Foster, G. Wythes, P. C. M. Veitc Owen Thomas, John Harrison, C. G. A. Nix, James Ve and G. Kelf.

Messrs. Sutton and Sons of Reading staged a remar able group of vegetables considering the time of yea Here were displayed in profusion such kinds as Asparagu Peas, Beans, Mushrooms, Tomatoes, Carrots, Cucumber Potatoes, Turnips, Lettuces, Cabbages, Broccoli a Rhubarb, the whole being in first-class condition. may be of service to enumerate some of the varieti shown. Pea Early Giant, Beans Tender and True a Princess of Wales, Mushroom Sutton's Twentieth Centur Asparagus Reading Giant, Turnips Red and White Ea Milan, Cabbages Harbinger, Sutton's April and Flower Spring, Carrot Champion Scarlet Horn, Potato Sutto Seedling, Tomatoes Early Market, Sutton's Perfecti and Winter Beauty, and Broccoli Sutton's Satisfacti cut from the open field were all shown in really first-cl condition, and reflected the greatest credit on this we known firm. Silver-gilt Knightian medal.

A large and representative collection of Rhubarb fr the Society's gardens at Wisley was shown, about thir varieties being included.

A small but excellent lot of Grapes and Strawberr was shown by the Right Hon. the Earl of Stanho Chevening Park, Sevenoaks (gardener, Mr. J. C. Sutto the Grapes being Lady Downe's and the Strawberr Royal Sovereign. Both were splendidly finished, and t Strawberries were of particularly good quality and large size. Silver Knightian medal.

BOURNEMOUTH GARDENERS' ASSOCIATION.

A VERY interesting paper was read on the 30th ult. one of the younger members of this association. T subject, "The Begonia Gloire de Lorraine Type," w very ably dealt with by Mr. P. Dowell, Astney Firs Garde Bournemouth. The paper was a short one, but the ch points in the cultivation of this popular Begonia we dealt with in a concise way. A long discussion follow the reading of the paper and Mr. Dowell was asked ma questions, which he ably answered. The principal poin of the paper were as follows: The lecturer much preferr to increase or renew the stock of plants by propagati of leaves, and advocated mature foliage. January w the time recommended for the insertion of the first bat of leaf cuttings. The second batch should be put in March. In January the temperature of the house shou be maintained at 55° or a little higher. The base of ea leaf-stalk was inserted in the light, sandy soil near t rims of the pots. The leaves were thus supported by t rims and also prevented from touching the surface of t soil and being lost through damping. Instead of enclosi the leaf cuttings in a propagating-frame, leave the gl light off, keep the compost in a medium state of moistu and do not syringe the leaves. When sufficiently root the young plants were potted into very small pots in compost of fibrous loam and leaf-soil in equal proportio and dried cow-manure was also used in small quantit Two more repottings followed, first in 5-inch pots a finally into 6½-inch ones. If the loam used was heavy a retentive of moisture, the lecturer recommended t addition of good peat; but not any peat if the soil was a light nature. He advocated light potting, a temper ture during the growing season that never fell below 6 and feeding with weak doses of liquid manure made fr cow-manure in preference to the use of artificial manur No pinching of shoots was done; some were allowed grow over the rims of the pots and the central ones we so trained that nicely balanced pyramids were forme It was important that all flower-buds be kept pinched the plants during the summer-time until about five wee prior to the date on which they were required to be had full flower. Slight shade was necessary. His pla were grown on shelves so that they could have the ma mum amount of light in dull weather. There is genera a fine exhibition of Begonias at the Bournemouth autu shows, and consequently much interest is taken in t cultivation of the plants by members of this association.

THE GARDEN.

No. 2009.—Vol. LXXIV. May 21, 1910.

CONTENTS.

Water Lilies and the Way to Grow Them 249
Forthcoming events.. 250
Notes of the Week 250
Correspondence
Poisonous plants .. 251
A new type of Télemly Sweet Pea 251
A plea for fragrant Sweet Peas.. .. 251
Gardening of the Week
For the South and South Midlands.. 251
For the North and North Midlands.. 251
The Daffodil of the future 252
Fern Garden
The spring treatment of hardy Ferns .. 252
Flower Garden
Sweet Pea chat .. 253
Late-sown Polyanthuses 253
Greenhouse
Achilleas for the alpine house and rock garden .. 254
Trees and Shrubs
Daphne Mezereum Paul's White .. 255
Rose Garden
Rambler Rose Trier 255
Rose Waltham Bride as a standard .. 255
Coloured Plate
Some beautiful Violets 255
Gardening for Beginners
Garden work week by week 256
Planting herbs .. 256
Hydrangea Hortensia 257
Tree Carnations .. 257
Mowing lawns .. 257
The Town Garden.. 257
Ferns at the Midland Daffodil Show .. 258
Daffodil notes 258
The Hollies 259
Answers to Correspondents
Flower garden .. 259
Trees and shrubs .. 259
Greenhouse 260
Miscellaneous.. .. 260
Societies 260

ILLUSTRATIONS.

Waved Télemly winter-flowering Sweet Peas 252
Choice Daffodils growing at Olton 253
Achillea argentea 254
Achillea ageratifolia (Anthemis Aizoon) 254
Some beautiful Violets .. .. Coloured plate
Daphne Mezereum Paul's White 255
Planting herbs 256
Hydrangea Hortensia as grown by a reader 257
A group of Ferns at the Midland Daffodil Show.. 258

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment is desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

WATER LILIES AND THE WAY TO GROW THEM.

ONE of the most attractive forms of gardening is the cultivation of water plants, and those who are fortunate enough to possess a small pond, or, better still, a stream running through their grounds, have the means of growing many beautiful subjects. Foremost among these water plants are the Nymphæas, which may be grown in the stream itself, and of which there is now in cultivation a large number of varieties of many shades of colour, from white to yellow and crimson. Well-established groups of these produce an abundance of flowers from the middle of May till the middle of October, and form sheets of colour. While the stream or pond itself is occupied with Nymphæas, on the margins of the water a home may be found for many other charming plants, such as our native Flowering Rush (Butomus umbellatus), Spearwort (Ranunculus Lingua), common Marsh Marigold (Caltha palustris) and Golden Club (Orontium aquaticum) among many others. Higher up on the bank might be planted groups of Day Lilies (Hemerocallis), Irises, Globe-flowers (Trollius), the noble Gunnera manicata with its ample foliage, and the Royal Fern (Osmunda regalis). These are only a few of the many suitable and charming plants available for beautifying the water-side and banks.

For those, however, who do not possess such a natural stream or even a pond, and who desire to grow these beautiful Nymphæas, it will be necessary to provide artificial means for the purpose. This may be in the form of a cement tank sunk so that the top is just on a level with the surface of the ground; the water-level is therefore lower, and thus enables one to look down and see the flowers at their best. Where the cost of a cement tank is prohibitive, Nymphæas may be grown in sunk tubs arranged on a slight slope. A gentle flow of water through the whole series of tubs could be arranged by having the water supply at the higher end and connecting the different tubs by short pipes, allowing a slight fall between the tubs.

Cultivation.

Providing water in any convenient form is handy, the cultivation of the Water Lilies is not at all difficult. The planting-time may extend from March to June, but it is always advisable to get them planted as early as possible, just when growth is beginning. All those enumerated are quite hardy, and will grow in any part of this country. The stronger-growing ones, like N. gladstoniana and the common N. alba, will flourish in water that is 4 feet or more in depth; but the crowns of the smaller ones, like N. pygmæa, should not be more than 9 inches to 1 foot below the surface of the water. The best way to plant Nymphæas in deep water or streams is in baskets of good loam and well-decayed cow-manure. Then cover the top with turves, and tie them down securely with thick cord, so that when the basket is lowered into the water they will not come off. The Nymphæas will soon root through the bottom of the basket and fix themselves in the mud below, after which they will require little attention except thinning out when they grow too thick.

For Growing in Tanks.

The best way is to make a good heap of the soil mentioned above and plant the Lilies in it, taking care to keep the top about 1 foot or 18 inches below the level of the water. If turfy soil is used, the heap may be built so that it will not crumble with the action of the water. Large pots or tubs may also be used instead, but the heaps of soil allow more run for the roots. For culture in tubs the soil may be the same. Fill the tubs to within 18 inches or 1 foot of the top with the soil, then plant the Nymphæa, and afterwards fill up with water. To give it a cleaner appearance a good layer of river sand should be spread over the top of the soil, whether in heaps or tubs. The propagation of Water Lilies is easy, as the roots may be parted, taking care to leave a crown or two on each piece. This may be done at planting-time. They may also be raised from seed, which is produced freely. Sow this in shallow vessels containing soil at the bottom, with a few inches of water. Seeds should be kept through the winter in wet moss or in vessels of water in a cool place, and sown in spring in heat. When the seedlings come up, they should be potted off singly in small pots, using a sandy loam. As they get larger, gradually harden off the plants by placing them in water of a cooler temperature. The following is a good selection for

Growing in Tubs.

N. Laydekeri.—This is one of the less rampant kinds, of which there are several varieties. N. L. fulgens has fragrant,

amaranth red flowers, with crimson stamens. N. L. lilacea opens with a blush tint, changing with age to rose, crimson and lilac. N. L. purpurata has deep crimson flowers.

N. odorata alba (the American Lily).—A pretty, sweet-scented kind from the United States. It produces a long succession of white flowers, and likes a warm, sunny situation.

N. o. Exquisita.—A choice little plant with fragrant, rose-coloured flowers paler near the tips of the petals. Other forms of N. odorata suitable for growing in tubs are N. o. luciana, deep rose; and the Newfoundland Water Lily, N. o. rosea, a beautiful variety which bears large flowers of a rich rosy pink all the summer through.

N. o. minor (N. pumila).—A charming little Lily with white flowers about 3 inches in diameter.

N. o. sulphurea.—A small-growing plant with marbled leaves and pale sulphur-coloured flowers.

N. pygmæa.—This little Chinese Lily is the smallest Water Lily, and grows freely in shallow water. It produces a long succession of its small white flowers all through the summer.

N. p. Helvola.—A yellow-flowering form of the pigmy Water Lily, with small foliage tinted with bronze.

N. caroliniana.—A lovely free-flowering kind with fragrant rose pink flowers of good size, darkening to deep rose in the centre.

All the above may be grown in tubs where there is from 9 inches to 1 foot of water. For

PONDS AND STREAMS

there is a much larger selection available, among the best being:

White Flowers.—N. alba, N. caroliniana nivea, N. gladstoniana and N. Marliacea alba.

Rose or Pink.—N. Arc en Ciel, N. caroliniana, N. colossea, N. Marliacea carnea, N. tuberosa rosea and N. William Doogue, the latter with flowers of large size and great substance.

Red to Crimson.—N. ellisiana, N. Froebelii, N. atropurpurea, N. gloriosa (one of the finest), N. James Brydon, N. Marliacea ignea, N. Robinsonii and N. William Falconer.

Yellow or Orange.—N. fulva, N. aurora, N. Marliacea chromatella, N. odorata sulphurea grandiflora and N. Siegnouretii.

W. IRVING.

FORTHCOMING EVENTS.

May 24.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 12 noon to 7 p.m. Admission 10s. Bath and West and Southern Counties' Show at Rochester and Chatham (five days).

May 25.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 7 a.m. to 7 p.m. Open to public 12 noon to 7 p.m. Admission 2s. 6d.

May 26.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 9 a.m. to 6 p.m. Admission 1s.

NOTES OF THE WEEK.

Royal Gardeners' Orphan Fund.—In consequence of the death of His Majesty King Edward, the annual dinner arranged to take place at the Hotel Cecil, on May 19, is postponed to Thursday, May 26. The committee beg to notify that invitations issued for May 19 hold good for the altered date, and will be glad if gentlemen who have already accepted will kindly confirm same for their attendance on May 26.—B. WYNNE, *Secretary*.

The proposed two-day Royal Horticultural Society's meetings.—We learn that, as a result of the enquiry instituted by the Royal Horticultural Society's Council as to the desires of the exhibitors at the Horticultural Hall *re* the holding of those meetings over two days for a few months of the year, the proposal has been withdrawn, there being a predominance of antagonism to the suggestion. No doubt the wisest course has been taken, as it would have been folly to have persevered with a suggestion which had not the approval of a majority of the regular exhibitors. A plea had been put forth that, as on Wednesdays it is the custom of the railway companies to issue cheap return tickets to London and back, many country people would gladly have visited the meetings on the second day. These shows, however, are not competitive, and, therefore, have to be regarded from a purely voluntary standpoint.

The National Dahlia Society.—Two exhibitions will be held during the present year under the auspices of the above society, one at the Crystal Palace on September 8 and 9, and the other at the Royal Botanic Gardens, Regent's Park, on September 21 and 22. The report for 1909, together with the schedule of prizes for this year, is now being issued. A trial of single Dahlias is being held by the society this summer in connection with Messrs. J. Cheal and Sons, Crawley, Sussex. The society is also now issuing the annual supplement and conference report, which contains a great deal of information of the highest value to cultivators of Dahlias. Full particulars concerning this publication and the schedule can be obtained from the hon. secretary, Mr. E. F. Hawes, Royal Botanic Gardens, Regent's Park, N.W.

Proposed Scottish Gardeners' Trades Union.—We learn that a movement for the formation of a trades union of gardeners in Scotland is in contemplation, and that a meeting is likely to be held shortly to arrange for its formation. Mr. A. M'Kinnon M'Intosh, Paisley Road, Glasgow, is, we are informed, forming the nucleus of the union in response to the request of a number of gardeners. It is understood that the proposal has been revived at this time on account of the lowering of wages in some gardens and the reduction of the staff in others. Similar proposals have been made from time to time, and gardeners will do well to consider the question thoroughly in all its bearings before committing themselves to action such as that taken by trades unions in general.

Presentation to a Kent gardener.—Mr. Edward Butler, head-gardener at the Surrenden Estate, Pluckley, recently completed his fiftieth year of service on the estate, and the occasion was celebrated in a suitable manner. Previous to the dinner given by Mr. and Mrs. Butler to a number of friends, Mr. G. Miller asked them to accept two life-size portraits of themselves. After the dinner, the Rev. Dr. Springett handed to Mr. Butler an album containing the names of the subscribers and an illuminated address. A gold locket was also presented to Mrs. Butler. After these had been suitably acknowledged, Mr. Butler handed to each member of his staff an autograph portrait of himself.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Eucalypti in Britain.—Near here, at Brightlingsea in Essex, on the estate of Mr. John Bateman, J.P., D.L., Eucalyptus Gunnii has grown out of doors for over forty years, has attained a height of over 60 feet and bears fertile seed every year. I am not writing of one tree, but of scores of them in plantations on both light and heavy soils on high ground and on low. It can also be seen growing at Wyvenhoe and Thorington, and many others are being planted about here, most of which were grown from seed or seedlings (self-sown). Mr. Bateman brought the seed of his trees from Tasmania. A year ago late frosts damaged many trees in my garden, but my young E. Gunnii were unharmed. You may also be interested to hear that I have Arbutus Unedo 35 feet high. I have seen none like them except at Killarney.—LLEWELYN LLOYD, M.A., *Kirby, Essex*.

Destroying field-mice.—I should be grateful if you or any of your readers could tell me of any means of destroying field-mice, which are damaging many plants in my rock garden. I have tried traps, with only moderate success. I should also be glad to know the experience of others as to the amount of damage caused by mice. I have come to the conclusion that much of the eating of plants, blossoms, &c., as well as bulbs, which I used to attribute to rabbits and birds, is really due to mice.—E. M. GREENLY.

The Lyon Rose.—I agree with Messrs. Stuart Low and Co. as to the lasting quality of the Lyon Rose, which is remarkable either on the plant or in a cut state; but as to its suffering during the winter I hear many complaints, as it is much injured in this way. With me the plants die down to the ground-line, which is not a point in its favour.—E. M.

Poisonous plants.—It may interest "Hayward's Heath" and other readers to know that the Venetian Sumach (Rhus Cotinus) is exceedingly poisonous in my case. I have twice had my hands and face very much injured with it. The first time I was quite at a loss to know what caused the painful rash, but the second time the rash appeared almost immediately after smelling and touching the plant. I have since heard of someone else who has had the same experience.—M. BOTHAMLEY, *Dene Cottage, Winscombe*.

A beautiful colour combination.—It may be of interest to other readers to record a beautiful colour effect I noticed a few days ago. In a suburban garden there were two clumps of the common violet-coloured German Iris, and sandwiched between the two was a small clump of the silvery mauve Darwin Tulip the Rev. H. Ewbank. The two colours harmonised beautifully, and created a picture that at once arrested attention and that was most pleasant to behold. This is worth remembering when Tulip planting-time comes round.—A. A.

"Jerusalem" Cowslip (Pulmonaria officinalis).—I fear it is difficult to say that Jerusalem Cowslip has any botanical sanction for its use in referring to Pulmonaria officinalis; but if we restrict ourselves to the use of such common names as are sanctioned or supported by science, we shall have to drop many of our popular names. But this Lungwort has several names quite as inappropriate, *e.g.*, that of Jerusalem Sage. If it is wrong to call a Boragewort a Cowslip, it is equally so to call it a Sage. With reference to the use of the word Jerusalem as a prefix to Cowslip, I may add that

several of the Lungworts are natives of Western Asia, although also found in Europe, so that there is probably something to say for its employment; but in using popular names it is well not to be too strict. Were we to be so, we would require to drop many well-known names familiar to a great number of people who cannot be troubled with botanical ones and sanctioned by long usage.—S. ARNOTT.

Poisonous plants.—Some years ago I had a rash on my hands and wrists through handling Primula obconica. It was so bad that the head-gardener had to manage them. I was then always at work under glass, and had time to notice how some plants, other than the Primulas, would cause an irritation of the skin—Davallia mooreana, fancy Pelargoniums and various Acacias, Fig leaves and the sap of the same when tying and thinning in the Fig-house, particularly when the sun was causing the temperature to rise and the pores of the skin to open. A few years later I thought I would try P. obconica again to please those who employed me, with the same result; in fact, while gathering some flowers I slipped and fell in among them. My face and hands were nothing but watery bladders. Since then I have left the plants severely alone. The doctor says my skin is sensitive. That may be; but when such plants cause days of irritation it is better to let them alone. Primula sinensis never did affect me, and now that I am out in the air more than at previous times, probably the skin is harder and not so sensitive. Zam-Buk ointment worked marvels to clear the bladders and form new skin on my face and hands.—T. BATES.

A new type of Telemly Sweet Pea.—Many readers of THE GARDEN will be interested to hear that I have at last succeeded in introducing the Spencer wave into the Télemly strain of winter-flowering Sweet Peas. I have been trying for some time to do this, but not knowing anything at first of the law of Mendelism, I have been throwing away all failures, as I considered them, every year. Now, however, that I have learnt through Mendel to give a chance to the second generation, I am rewarded with several plants more or less waved, and among these are two of great beauty and distinction. One is a blush pink like Mrs. Hardcastle Sykes, and the other, of which I enclose a photograph, is a clear bright self rose of the colour of Rose John Hopper. I have been at work during this winter crossing these two plants with all my other colours, and hope thus to secure a great accession of form and vigour for the Télemly strain, and I only regret that for a year or so I shall not be able to share my *trouvaille* with others.—EDWIN ARKWRIGHT, *Telemly, Mustapha, Algiers.*

A plea for fragrant Sweet Peas.—It seems almost impossible that there should be anything left to write about Sweet Peas after the foundations of literature and opinions that have of late been published; but may I add one word of pleading that, I hope, will have influence with hybridisers of these delightful flowers this summer, viz., a plea for scented varieties. The name is rapidly becoming a misnomer in many sorts, and what has brought the idea more lately before me is the delicious fragrance of a few forced ones I have in a room now of a variety called "Christmas-flowering." It is a hideous colour and poor flower, but the blooms in a vase scent the whole room. I grow a great many Sweet Peas, and last summer a friend counted thirty vases (mostly large bowls) in the drawing-room filled with them, but the whole of it did not scent the room like the dowdy little flower I have in now (where it came from neither my gardener nor I can remember), which causes every visitor to exclaim, "Oh! what *is* smelling so sweet?" I regret the flowers are now quite over, or would send some for your table.—C. R.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

EARLY GRAPES.—Excessive temperatures must be avoided in houses where Grapes are ripening, and a more buoyant atmosphere maintained. Air should be admitted on every opportunity. If the borders are dry, a good soaking may be given with clear water. A night temperature of 65° is sufficient at this period, which may be lessened as the fruit approaches maturity.

Successional Houses.—Close attention is necessary to keep the stopping and thinning well in hand.

Muscat Grapes.—These being rather difficult to set, it is best to wait till it can be seen which berries are going to swell before commencing to thin. There are usually a lot of seedless berries, and sometimes it is difficult to get a good-shaped bunch. Therefore, by postponing the thinning till it is quite apparent which are the seedless berries, better results will be obtained. In many districts mildew is exceedingly troublesome at this season, and to check this the pipes must be smeared with sulphur made into a paste. This operation should be performed in the evening. Make the pipes hot and rub the paste on with the hand. A little ventilation must be given early the next morning and the Vines syringed.

Plants Under Glass.

Lilium longiflorum.—These are making good growth, and when grown three or four bulbs in 7-inch pots, will require plenty of nourishment. Liquid cow-manure is an excellent stimulant for them, and an occasional watering with weak soot-water is beneficial. Frequent fumigating is necessary to keep down green fly.

Cyclamen.—Plants that have finished flowering should be stood in cold frames, where the corms or tubers may be gradually ripened off. Water must not be entirely withheld all at once, or they will probably shrivel and the bad effects will be seen next flowering season. The young plants should be kept growing on and potted up when necessary.

Kitchen Garden.

The thinning out of various crops should be proceeded with as soon as the young plants are large enough to handle.

Onions will be the first to demand attention. These should be left 9 inches apart when finally thinned. One or two rows may be left thicker for use in their green state. Again, if small roots are required for pickling, these can be left thick, unless a special variety is grown expressly for this purpose.

Parsnips and Carrots will follow the Onions in due course. Parsnips require thinning from 12 inches to 15 inches apart; Carrots, 12 inches. Early Short Horn Carrots that are grown for summer use should be slightly thinned at first; then, as soon as the roots are large enough for cooking purposes, they may be drawn.

The transplanting of Cauliflowers, Brussels Sprouts, Broccoli, Savoys and other greens should be attended to before the plants get thin and leggy. In many cases seed is sown thickly, and if all the plants are left in the seed-bed till they are required for permanent quarters, they naturally become weak By thinning them out and transplanting, strong, sturdy plants are obtained.

E. C. POOLEY.

(Gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

BEDDING OUT.—This work is now carried out on a much more rational plan than formerly, and there is not the great rush about the end of May to get everything into place. With the much greater variety of plants now at command, the filling of the flower-beds can be begun towards the middle of April and everything got in in comfort, instead of the break-neck pace necessary a few years ago. As has already been advised in this column, such useful bedding plants as Antirrhinums, Pentstemons, Dianthuses and Chrysanthemums can all be got into their summer quarters by mid-May, and now all Calceolarias can be planted. When planting is carried out on this system, much better results are usually obtained, as many of these subjects are practically hardy, and if set out in good time make far finer plants than they could possibly do if kept in frames or boxes until it was safe to plant out the tender kinds.

Herbaceous Borders.—Growth has been fairly rapid this season, and a large number of the plants will require staking now. Where time can be found it is also very advantageous to thin out the growths somewhat. Many plants send up masses of shoots, and the overcrowding causes a spindling growth and poor flowers. It takes time to properly thin and stake these hardy plants. Where large numbers are cultivated, it is a practical impossibility to stake out each shoot as is often advised. If stakes are painted green, and three or four are driven firmly into the ground round each large plant and then looped round with tar twine, a very decent and expeditious job can be made. When done in good time the foliage soon hides the stakes and twine, and the plants assume a quite natural appearance.

Hardy Annuals.—The thinning of these must be rigorously carried out while the plants are quite small. The best plan is to do the work twice. The first time just a partial thinning out where the little seedlings are much crowded should be aimed at, and after they attain more size, so that they will be comparatively safe from slugs, a final and severe reduction should be carried out.

Plants Under Glass.

Azaleas.—The bulk of the Indian Azaleas will now have gone out of flower, and the plants should have some little attention given them. The first thing to do is to pick off all faded flowers and the seed-pods attached to them, care being taken not to injure the growth-buds springing just beside these. If potting is required, now is the time to do it. A very small shift is always best, and the compost must be rammed very firmly, or more than likely the plant will die. Whether repotted or not, the plants should be placed in a rather warmer house than the one in which they have flowered. The Azalea dislikes strong sunshine, so some light shading should be given the plants. Syringe twice daily to encourage fresh growth and to keep down thrip. If no repotting has been done, the plants should either be top-dressed or have weak doses of liquid manure twice a week.

Amaryllis.—The earlier plants ought by this time to have made their full growth in a warm house, and should be shifted to a sunny greenhouse, there to ripen their bulbs. Continue to give them every attention in the way of water at the roots, as premature ripening of the bulbs is to be avoided. Gentle feeding should still be administered, as the perfecting of the bulbs during the summer months is of the greatest importance.

C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House Linlithgow.

THE DAFFODIL OF THE FUTURE.

IN an excellent speech at the dinner which he kindly gave to friends of the Midland Daffodil Society at Birmingham on the occasion of the annual show, Mr. Robert Sydenham stated that in his opinion the Daffodils of the future would be those with bright-coloured cups, and of which raisers are now giving us so many. Judging by comments that have been overheard at various shows during the season that has passed, this opinion is well founded. Evidently the general public have taken to such varieties in a most enthusiastic spirit, and, after all, it is the public who must be the final judges as to what shall become the most popular.

With the idea of finding out what the firm of Robert Sydenham, Limited, Tenby Street, Birmingham, has in store for its numerous customers, we gladly accepted Mr. Sydenham's invitation to visit his Daffodils at Olton, a delightful country district a few miles from Birmingham. Here the Daffodils are under the care of Mr. Phillips, a young partner of the firm, who is exceedingly keen on these flowers and has an intimate knowledge of all sections and varieties of the Narcissus, from the oldest sorts to the newest creations of our Daffodil wizards. Knowing the thoroughness with which Mr. Sydenham conducts the whole of his business, we were prepared to see Daffodils growing at Olton in the best possible manner; but the extent to which they are cultivated and the vigour of the plants far exceeded our expectations. Several acres were occupied by Daffodils alone, and when we say that only the choicest and comparatively new varieties are grown here, our readers will gain some idea of the beautiful sight they afforded.

It may be interesting and useful to give a few details of those varieties which appealed most to us, and some of which are now within reach of those who cannot afford to pay excessively high prices. One of the most distinct was Lemon Drop, a variety that will, we think, on account of its free-flowering habit, be largely adopted for bedding in the future. It is a drooping flower, and for this reason is not an exhibition sort, but when growing it is exceedingly pretty, very free and of even height. It has a rather loose, pale cream perianth and large lemon cup. Homespun is a beautiful large-cupped canary yellow self variety, the broad perianth being of superb shape. It is remarkably free, and is undoubtedly one of the exhibition Daffodils of the future, as well as being an admirable variety for the garden. King Alfred is a large rich yellow trumpet variety with extra long, stout stems; it was doing splendidly at Olton. Then there was the beautiful Mme. de Graaff, another of the trumpet section that is now comparatively low in price. Messrs. Sydenham had a grand stock of it, and it is a Daffodil that we can from experience recommend to all. It has a slightly drooping habit, but its refined very pale sulphur trumpet and white perianth recommend its inclusion in all gardens. Those who like triandrus, but who find a difficulty in growing it owing to its weak constitution, should try J. T. Bennett-Pöe, a hybrid of this section that, as we saw it growing at Olton, is very vigorous and free. Cardinal is a beautiful large, red-cupped flower, even brighter at times than Lucifer and of much more vigorous habit. Rosella is another red-cupped variety of much beauty and great freedom. Many stems had two flowers, but this is not, we think, characteristic of the variety. Firebrand, Peveril and Southern Star were others with richly coloured cups that greatly appealed to us. Peveril has a very rich orange scarlet cup with no yellow in it at all, and this renders the flower very effective. The cup of Southern Star is very flat, has a lemon yellow centre and is heavily margined with vivid orange scarlet, this contrasting well with the creamy white perianth. Cavalier has a beautifully shaped white perianth and a large, very flat cup of bright orange scarlet, the flower being a choice one indeed. Red Crest, which is much like Southern Star, but has a better perianth with Almond-shaped segments; a wonderful flower.

Those who are looking out for a comparatively cheap poeticus variety should invest in Sidney. It is scarcely a show flower, but has long perianth segments, is very vigorous and free, has a beautiful bright eye and long stem—surely all that one can desire for the garden. Persian Orange is another bright-cupped variety of comparatively low price and great vigour. Horace is a beautiful poeticus variety well known to experts, and we were pleased

THE NEW WAVED TYPE OF THE TELEMLY WINTER-FLOWERING SWEET PEAS.

to notice a good stock of this at Olton, the perfectly formed flowers appealing strongly to us. Incognita was growing very freely, the perfectly shaped white perianth forming a charming background to the flat salmon-coloured cup.

White Queen is a short trumpet variety of great refinement, both perianth and trumpet being pure white, the latter standing well open and being beautifully frilled. White Lady is another charming white variety, though in this case the beautifully crested cup is of pale primrose hue. The flowers possess great substance and long, stout stems. The above list might be extended almost indefinitely were space at our disposal, but we must finish with a mention of Seville, the newest of Messrs. Sydenham's Daffodils. This is a beautiful large, flat-cupped variety that attracted a great deal of attention at the Birmingham show. The perianth segments are broad and well formed, and pure, very opaque white, the large cup, which can scarcely be covered with half-a-crown, bei rich Seville orange in colour. Messrs. Sydenha hold the whole stock of this magnificent variet and, of course, its price places it beyond the rea of most growers at present. However, it is Daffodil to look forward to. The soil at Olt appears to be virgin loam and is evidently ide for the culture of Daffodils, as all the plants inspected were in an exceedingly healthy a vigorous condition.

THE FERN GARDEN.

THE SPRING TREATMENT OF HARDY FERNS.

WHEN this issue of the "Gazett reaches its subscribers it will the best time of the year the dividing, repotting a general overhauling of th collections, since after the lo winter's rest the plants are in the best co dition to withstand such operations with t least detriment. This is partly due also to t fact that the new season's fronds, under qui cold treatment, are still comfortably packed in the crowns of Ferns of the shuttlecock pe suasion, while any damage which may result the old ones of evergreen species is soon rectifi by the appearance of a new batch. It ma however, be remarked in this connection th green fronds should be preserved as far as possib only dead ones being removed, since such gre foliage undoubtedly contributes something to t vigour of growth of their successors. In the ope too, the old frondage, even the dead and shrivell *debris* of deciduous Ferns, forms a natural prote tion to the crowns, and if removed for tidine sake, should be replaced by a liberal mulching leaf-soil. This is advisable for the reason that t new fronds as they rise, and even as a prelimina to rising, produce individually little bundles roots from their bases, which may be seen emergi from and creeping down the sides of the projecti caudices or rootstocks on their way to the so and given a spell of March winds, dry and kee these may well be checked and perhaps destroy by exposure, which the old *debris* prevents. Und glass, of course, there is less risk of this, but ev there this habit of growth should be borne in min Treating still of the crown-forming Ferns, Lad Ferns (Lastreas and Polystichums), all these have tendency to propagate themselves, either by fissi of their crowns or by the production of later offsets, which in time form bush-like growths lieu of single crowns. The disadvantageous resu of this is twofold: First, the fronds in such ca cannot possibly display their full beauty, sin they become mixed up and often distorted; an secondly, owing to the competition for root-roo they become dwarfed and cannot attain half th size and development of character that a sing isolated crown is capable of assuming. Hence, really fine specimens are desired, plants of mo than one crown should now be divided, the be plan being to fork them up bodily, when it will b found that they can be readily coaxed apart, eac crown coming away with its independent roo and easily establishing itself anew when replante Where, as is generally the case with Lady Fern these crowns have been produced, not by offset but by splitting of the crowns in the centre, th subsequent growth producing a sort of Siames twin connection, a sharp knife may be used start the separation, until it is found that th crowns yield to pressure and come freely away in the other cases. In doing this care should b taken not to squeeze the upper parts in which th

new fronds are packed, but to confine the pressure to the vicinity of the initial cut. As many of the best varieties of Polystichum form bulbils on the fronds near the bases, it is well when removing even the dead fronds to look out for these as a means of propagation, since they retain vitality long after the rest of the frond has perished.

Repotting should not be done unless really necessary. Well-established single crown specimens do well for years together in fair-sized pots or pans if mulched occasionally with a little fresh soil. We have in our collection a remarkable instance of this. It must be close on thirty years ago we installed a crested Lady Fern in a cork receptacle, formed of a roofing slate about 2 feet by 1 foot with a large piece of curved cork pierced with holes here and there and secured to the slate by copper wire, another smaller piece of curved cork being secured to the bottom to retain the soil. That Fern is as robust as ever, though the soil has never been renewed, but only replenished by a handful or so of soil every few years. Sundry small Ferns have appeared in the holes aforesaid and do equally well. Ferns with travelling root-stocks, like the Polypodies, are also best left alone if in good condition. To increase them is easy; any piece of rhizome with a frond or two and a growing tip is sure to establish itself. Ferns, on the other hand, which are out of condition should be turned out and repotted, all dead matter being removed and as small a pot used as will contain them. Let the pots be well drained and a careful look-out be kept for worms and grubs especially the white curved maggots of the weevil' which, with Hart's-tongues in particular, are very destructive, the maggots devouring the roots and crowns during the winter and the beetle the fronds during the growing season.

C. T. D., in the "British Fern Gazette."

THE FLOWER GARDEN.

SWEET PEA CHAT.

MULCHING.—In previous notes I think that it has been made quite clear that I am not an advocate of early mulching, for the simple reason that there is always an element of danger that its application will prevent the free admission of water and fresh air into the ground. At the same time, one must take into careful consideration the nature of the soil, and in those instances where it is extremely light and sandy it will be wise to consider the question of mulching forthwith. Where these conditions prevail, it is safe to assume that the ground is now warmed to a fair depth, and it is, therefore, permissible to put on a surface covering; but where the soil is strong and heavy, it will be wiser to defer all such work for another two or even three weeks. If the cultivator has any choice in the matter, he should give the preference to stable or farmyard manure; if he has not, then he will simply use what he can get. For this purpose the refuse manure from an old hot-bed is by no means to be despised. It does not, it is true, yield any appreciable amount of food for the benefit of the plants; but it is infinitely better than nothing at all, as it helps to keep the surface cool and moist. Grass mowings are not as valuable as many people appear to suppose, but they have their uses. The disadvantage with them is that unless they receive constant attention they will settle down into a pasty mass, and probably with a fair thickness commence to heat, and neither of these conditions is desirable, the former because the coating will be practically impenetrable by water and air, and the latter because it will injure the basal portion of the plants. If, perforce of necessity, lawn mowings are employed, they should be loosened with a fork at least once a week, and if the grower can find time to do it twice, so much the better. Short droppings are obviously good, but the dressing should be comparatively thin and ought not to come in actual contact with the stems of the plants. We thus get down to the fact that practically anything that may be convenient can be utilised for this purpose, and where there is nothing at all the grower will have to rely upon the maintenance of a surfacing of dust as ensured by the persistent use of the Dutch hoe. Where the soil is deep, thoroughly friable and has been heavily but intelligently manured, it will probably be found nearly as good as anything else.

FEEDING.—The novice in plant culture is invariably worried by the feeding of his plants, and in about ninety-nine cases out of every hundred he goes astray, not by any manner of means in the direction of starvation, but of over-generosity. Before the plants have passed the seedling stage he considers the desirability of applying liquid manure and no sooner has the thought entered his mind than he sets to work. This is indisputably wrong, provided that the soil was properly prepared to start with. When this condition prevails it is certain that there will be an ample supply of nutrient matters in the ground to carry the plants right on to the budding stage, and possibly longer than that, and if special feeding is had recourse to in these circumstances, harm instead of good will result. This paragraph is intended as a warning to the inexperienced not to start feeding for another month at least, and if the interval extends to six or even eight weeks, so much the better. That it is called for is proved by the fact that before the end of April I saw an amateur pouring fairly strong liquid manure heavily down each side of a row of plants which had not then reached the top of the twiggy, early sticks. On enquiry I learnt that he had used a generous dressing of rotted manure early in the year, and before sowing had worked into the surface some concentrated fertiliser, the latter being done during the third week of March. And then he was using liquid manure! It is an excellent rule to keep away from the water-pot until water is absolutely imperative to keep the plants in progress, and not to commence with the stronger stuff for a considerable interval, say, two or three weeks, after that. Good will assuredly follow provided that the right foods are used in a sensible manner; but even then it is just as easy, and to thoughtless people much easier, to adopt the incorrect as the correct method of procedure.

SPENCER.

LATE-SOWN POLYANTHUSES.

I AM sometimes asked how late seed of these and coloured Primroses can be sown so that they will flower the following spring. My answer is that it depends on how you treat them. I have sown them as late as the latter half of May, but I do not recommend it. If small plants are wanted for edging, these can be obtained by sowing at the end of March, placing the seed in a warm place to germinate. Mr. Townsend at Sandhurst Lodge sows at this time, although he requires 6,000 plants annually and raises a new stock from seed every year. New seed is sown in a low, moist pit and given glass culture till the young seedlings are a fair size; then they are pricked out into good soil and well attended to during the summer as regards moisture. These make nice plants by the autumn. When only a few are wanted and they are late-sown, it is a good plan to prick the seedlings into boxes or on to a disused hot-bed, where they grow away rapidly, making nice plants for next spring. Last year, through mismanagement, my first sowing failed, and my stock had to be raised from seed sown very late. By giving the seed warmth and moisture the seedlings soon became large enough to prick out. The very small ones (which are usually the best) were pricked out into boxes and a position given them in a cold frame right through till early February, when they were planted out; the plants were far better than many that are sown much earlier. Where they are needed very early for gathering from for glasses, it is a good plan to grow a few in boxes. These can be given a light position in a warm house, where they quickly respond to such treatment and are beautiful in a cold house in many ways.

JOHN CROOK.

CHOICE DAFFODILS GROWING AT OLTON. (*See page* 252.)

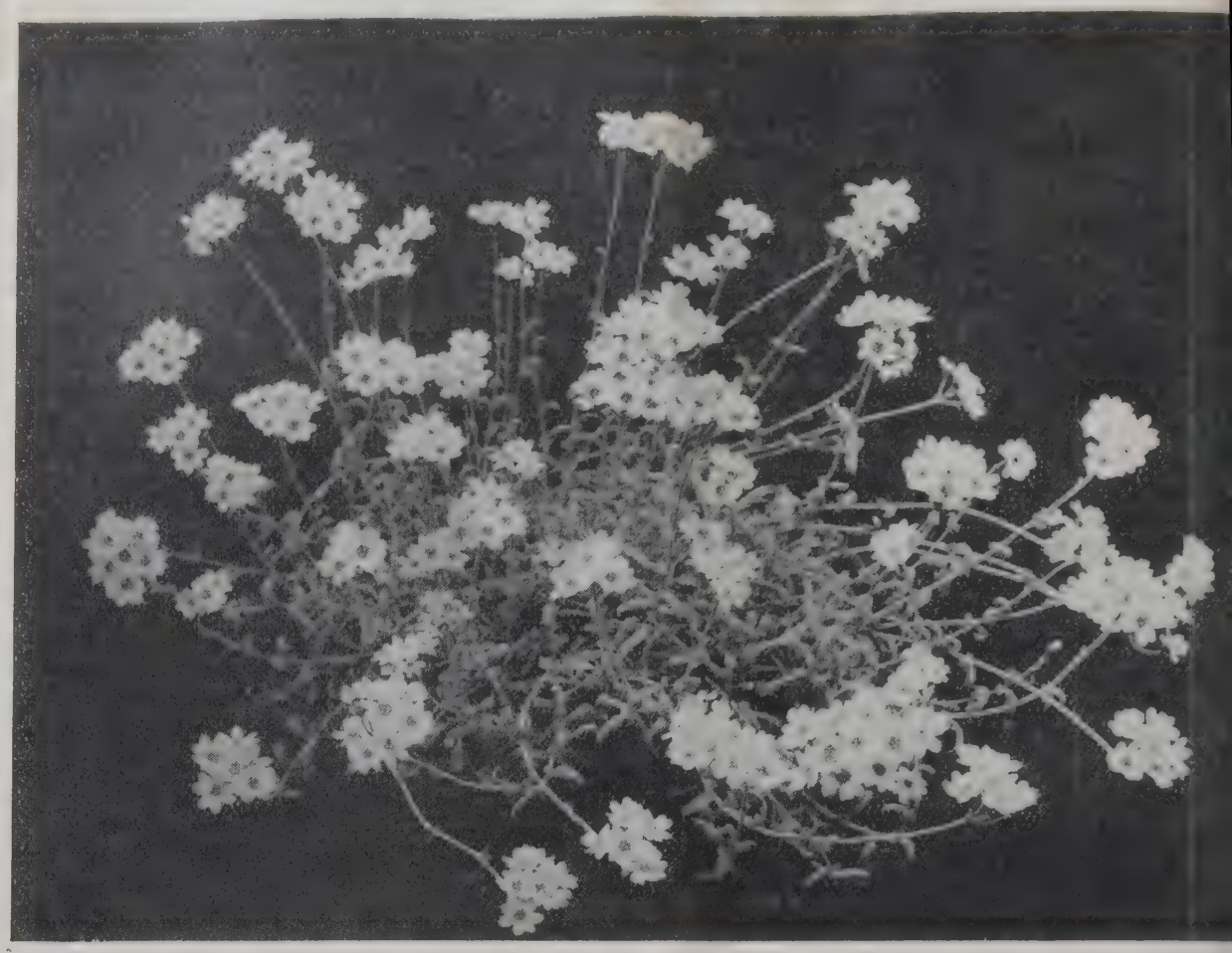
THE GREENHOUSE.

ACHILLEAS FOR THE ALPINE HOUSE AND ROCK GARDEN.

THE Milfoil or Yarrow family is a very extensive one, and contains many beautiful and interesting plants suitable for the herbaceous border and for the rock garden. Many of the dwarfer-growing species are also valuable for cultivating in pans to make a display in the alpine house. The greater proportion of them are quite easy to manage, succeeding well in deep sandy loam and planted in a sunny position. The larger kinds, like A. Filipendula, A. macrophylla and A. sibirica, are good border plants, the latter species especially being very useful for providing cut flowers. They all grow freely, and are easily increased by division of the rootstock in autumn or spring.

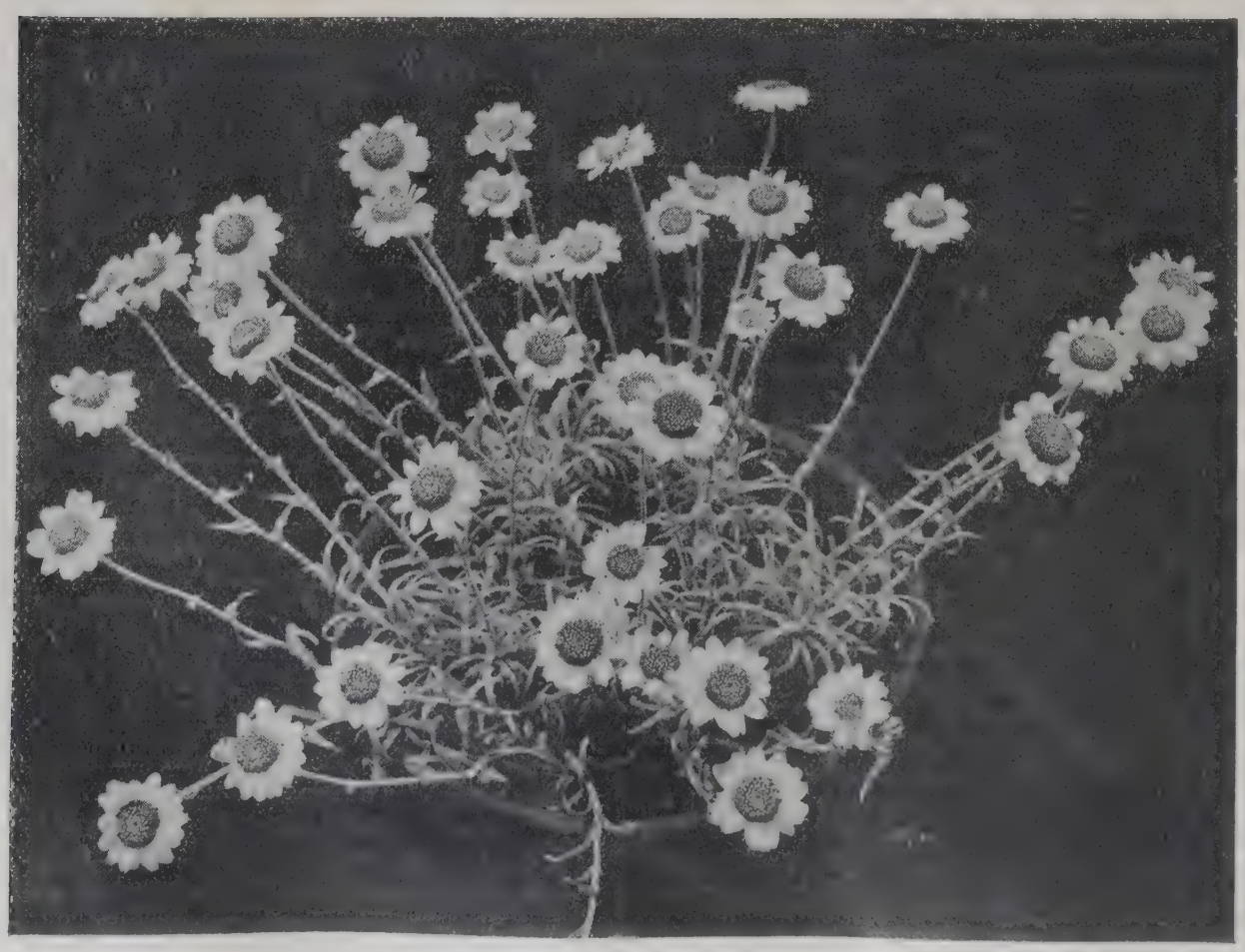
For the rock garden there are many attractive kinds with dwarf tufted habit, spreading out in the form of a carpet and producing a profusion of mostly white flowers. Many, such, for example, as A. umbellata, have silvery foliage, which renders them attractive even when not in flower. These also may be increased by means of division or by cuttings in July. The cuttings should be inserted in pots of sandy soil and then placed in a close frame till they are rooted. When they are well rooted, the cuttings may be potted off singly in small pots, using a compost of loam, leaf-soil and plenty of sand. The plants should then be put back into a frame, which must be kept rather close for a few days till they begin to grow again; then more air can be admitted and the plants gradually hardened off.

In order to make up a good specimen pan of these Achilleas, four or five small plants should be put in each, and this should be done as early in the autumn as possible, so as to allow the young plants to get well established before winter. Abundance of drainage is needed, for these plants dislike anything in the form of stagnant or sour soil. Plants may also be raised from seed sown in the spring. The best kinds for growing in pans for the alpine house are:



ACHILLEA ARGENTEA.

A. ageratifolia.—This species is probably much better known under the name of Anthemis Aizoon, and produces beautiful rosettes of silvery leaves with crimped margins. As may be seen in the illustration, the large flowers are pure white with a yellow disc, and are borne singly on stems over 6 inches high. One of the most attractive plants in the genus, this lovely Grecian species is well adapted for pot culture as well as for sunny spots in the rock garden.



ACHILLEA AGERATIFOLIA (ANTHEMIS AIZOON).

A. argentea is another beautiful plant, also wit silvery leaves that are toothed along the margin The pure white flowers are produced freely i umbels on stems about 6 inches high. The plan shown in the illustration has rather longer stem than usual, having been probably drawn up little through growing under glass. Outside o exposed portions of the rock garden it is muc more compact.

A. Kellereri is a taller-growing plant with long narrow, finely toothed leaves in a compact rosett also of a silvery hue. The stems grow abou 9 inches high, and bear corymbs of pure whit flowers that are very lasting and attractive. I is said to be a hybrid between A. ageratifolia lingulata.

A. nana.—This dwarf alpine species is not ofte seen in gardens, but is a choice little plant and we worth growing. The foliage is green and produce in rosettes close to the ground, while the flower are white.

A. rupestris.—The Rock Yarrow is a native o Southern Italy and one of the choicest member of the family. It is very dwarf in habit, formin a carpet of green foliage. From this springs th flower-stems about 4 inches high, each bearin several heads of ivory white flowers. Whe planted out in the rock garden this species require a well-drained sunny spot, and commences t flower in May. Like several of the other Achillea from South Europe, this plant suffers from damp in winter, and should be placed on a rocky ledge.

A. serbica.—This is similar to A. Kellereri, bu more compact in habit, with similar heads of whit flowers.

A umbellata is a low-growing, almost sub-shrubby plant, forming in time broad stretches of silver foliage. The leaves are regularly and deeply lobed, and even when the white flowers are pas are quite attractive. For the rock garden it is desirable plant for sunny positions in light, rich soils, and grows very freely in such situations For culture in pans it is one of the best, and pro duces its heads of white flowers quite freely Closely allied to this is A. Huteri, with smaller leaves. The above may be considered among th

ET DEVONIA.

st for the alpine house, although there are several ners worthy of trial, such as A. Clavennæ, A. isebachii, A. micrantha and A. tomentosa, all ore or less dwarf and of compact habit. W. I.

REES AND SHRUBS.

DAPHNE MEZEREUM PAUL'S WHITE.

WHEN Daphne Mezereum does well it is one of the most precious ornaments of the early spring. In favoured nooks it may be a thing of beauty of late winter in rly seasons, and there is a form at regularly begins to flower in e autumn and prolongs its season l spring. Here, I am sorry to y, they are not long-lived plants any variety. A fine specimen nt will suddenly wither and entually die, as though it had en bewitched, overlooked or me under the dread influence of e Evil Eye. Although there are tame raven in the garden and black cat in the stable-yard, I nnot connect the sudden demise my Daphnes with any occult luence, but I believe it is due our easily drained soil of arse gravel and dry climate, and once a bush that has somewhat hausted itself with flowering and eding is deprived of the cool, ist condition it so much loves a few weeks it is liable to lden death. Fortunately, it is easy to raise young plants from ds, sown as soon as ripe, that ce introduced to a garden the zereon should never again be nting. The form shown in the stration is very superior to any er I know. The purity of its newhat larger flowers is very rked if seen growing near the linary white variety; in fact, it kes the latter appear quite am-coloured. It bears berries a brilliant yellow, and I have en told that this form repro- ces itself quite true from seed. good-sized bush of it in March, en wreathed with its pure white l deliciously fragrant flowers, is charming feature in the rock den, while for grouping in ubbery borders to contrast with red-flowered varieties and that cresting purple-leaved form ich is a hybrid between D. zereum and D. Laureola, it uld be noted and acquired by all who wish a charming effect in early spring. The und beneath such a group might be carpeted h Cyclamen Coum, ibericum and Atkinsii, ich would flower at the same time and carry the same colour effect.

The Daphnes are shrubs that deserve to be wn far more extensively than they are at the sent time. One frequently finds D. Mezereum wing in a cottage garden, where its rose ured flowers, and later its red berries, are ch appreciated, but in large gardens one quently looks for even a single specimen in n.

Waltham Cross. E. A. BOWLES.

THE ROSE GARDEN.

RAMBLER ROSE TRIER.

IT is to be hoped Herr Lambert is following up his valuable cross-fertilising experiments which resulted in the production of this excellent variety of perpetual-flowering propensity. It is surely one of the most useful of the newer Rambler Roses. Perhaps it is not quite correct to use the word "rambler," because Trier is not a rapid grower, and I should rather prefer to grow it as a free bush or as a pillar. Its value lies not only in the perpetual-flowering character, but also in the splendid size of its panicles. The blooms are arranged well apart, so there is a most artistic appearance in these lovely bunches, and the delightful creamy buff tinting is most bewitching, combined with a sweet Musk-like fragrance. It is strange that such a shy bloomer as Aglaia should give such a free-flowering seedling, but this latter quality has undoubtedly been obtained from the pollen parent, Mrs. R. G. Sharman Crawford. It looks as though the employment of the Hybrid Perpetuals as pollen parents will give us perpetual-flowering Ramblers if the freest blooming of them are selected, and it would be delightful if some of the brilliant colours, such as Louis Van Houtte, imparted their colour also. It would make a splendid free-headed standard planted alternately with Grüss an Teplitz.

DAPHNE MEZEREUM PAUL'S WHITE.

ROSE WALTHAM BRIDE AS A STANDARD.

FOR a large garden this free-growing Rose would make a delightful object budded on a standard Briar. Its growths are not drooping, but rather spread outward, which, even when laden with bloom, do not droop to the same extent as the wichuraiana Roses. A well-developed tree is a perfect sight in the early days of June, hundreds of its milk white and very fragrant blooms appearing all over the growths. The blooms are double and of good size, larger than those of Grüss an Zabern, which I look upon as the best white Rambler. The buds are of a buff colour and exceedingly pretty.

A pretty effect would be obtained by budding, say, Carmine Pillar and Waltham Bride on the one Briar or one of the brilliant-coloured Penzance Briars, such as Refulgence, Anne of Geierstein or Lucy Bertram. These free-headed standards, instead of being discarded, will be in large demand in the near future. They are so noble in appearance, and many of the varieties bloom at a time of year when one is anxious for the garden to appear gay. Supposing one had a long walk or carriage-drive with a good border alongside, what could be more picturesque than some large-headed standard Roses of this description? I am glad to find the public is awaking to the fact that a standard Rose to be a thing of beauty must be of vigorous growth and also possess hardiness. P.

COLOURED PLATE.

PLATE 1400.

SOME BEAUTIFUL VIOLETS.

THERE is no sweeter flower in the garden than the Violet, and it is a pleasure, therefore, to publish a coloured plate of one of the best sorts—the single variety Devonia—from flowers kindly sent by Mr. J. Heath of Kingskerswell, who has made the cultivation of Violets a special study. As represented in the plate, the flowers are very large and deep purple in colour, and combined with these delightful attributes is a strong growth. Devonia ranks in beauty with the fragrant, large-flowered Princess of Wales, one of the most popular of all its sweet race; Baron Rothschild, purple, also a single Violet; and the well-known double kinds, Marie Louise, Comte de Brazza (which is of the purest white), Mrs. J. J. Astor (the colouring mauve, touched with pink) and Lady Hume Campbell (mauve). The cultivation of the Violet has been so frequently described in THE GARDEN that further reference to it is at present unnecessary. A coloured plate of several forms was given in THE GARDEN, June 6, 1908.

GARDENING FOR BEGINNERS.

PLANTING HERBS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—Those who appreciate Spinach during the hot months of summer will know only too well the difficulty in securing a continuous supply of the ordinary kind. Happily, we have the New Zealand Spinach to fall back upon, and a sowing of this made now will in the course of a few weeks

1.—DIVIDED PORTIONS OF A CLUMP OF CHIVES.

yield material for picking and continue to do so until frost kills the plants. It is a rampant-growing plant, and for this reason the rows should be 4 feet apart, two rows 3 yards or 4 yards long providing an abundance of Spinach for an ordinary household. Fortunately, it will grow in almost any soil that has been well manured. The seeds are large and should be sown 2 inches deep, taking care to water freely until germination has taken place should the weather prove dry. Onions and Carrots are now growing rapidly, and thinning must not on any account be neglected. Where the young plants are removed, the operator should be careful to replace the soil, otherwise the plants that remain will be open to attacks by the Onion and Carrot flies. In the case of the Onion the fly deposits its eggs near the base of the plants, and in that portion that will eventually form the bulb; and in the Carrot the eggs are placed in the uppermost portion of the root. By keeping both crops slightly covered at this time, attacks by these pests may frequently be obviated.

Flower Garden.—One is frequently asked to name a plant that will thrive in a very sunny position, and in sandy or open soil. Attention is drawn to this now because the present is a good time to sow seeds of one of the most showy annuals available for culture in our gardens, and which requires the conditions mentioned above if it is to do well. This is the little-known Portulaca grandiflora, a succulent, sub-creeping plant that grows about 8 inches high and which gives a profusion of gorgeous-coloured flowers in a sunny position. Wherever it is possible to do so, beds should be dug and got ready for their summer occupants, though in many cases it will be impossible and undesirable to do this until the end of the month. Wherever bulbs have been grown, these must be allowed to remain until the last minute, so as to give them the best possible chance to ripen off, at least to some extent. The present is a good time to sow seeds of Delphiniums to provide plants for flowering next year. They may either be sown in boxes of prepared soil or in finely tilled beds outside. In any case thin sowing and early pricking off must be resorted to.

Greenhouses and Frames.—Where Geraniums are required to flower next winter, the present is a good time to root some cuttings. These should be about 4 inches in length and prepared from firm young shoots, the stems of which are rather thicker than an ordinary lead pencil. If planted in pots of sandy soil and kept in a warm place in the greenhouse, they will quickly root, after which pot them singly into 3-inch pots, using good loam two parts and sand one part, with a little leaf-soil or decayed manure added. When needed move them into 5-inch or 6-inch pots, using soil as advised above, except that fine bone-meal, a 6-inch potful to each bushel of soil, should be substituted for the leaf-soil or manure. Pot firmly at this final move. When well established the plants may be stood outside for a week or two in August or early September, taking care to promptly pinch out any flower-buds that appear. Plants such as will result from this treatment will flower freely from October onwards in a warm greenhouse and give a welcome bit of colour during the dull winter months.

Fruit Garden.—Aphides or green fly have put in an appearance on the fruit trees early this year, and unless steps are taken to check their progress, much mischief will be done. Happily, there are now many excellent and cheap insecticides on the market, and armed with these and a good spraying syringe the amateur may in a short time create havoc among the pests. It is well to remember, however, that the insects usually congregate on the under sides of the foliage, and for this reason a syringe with a bent nozzle should be employed. Gooseberry caterpillar usually appears about this time, and, if any should be detected, dust the bushes with Hellebore powder or lime. The former is slightly poisonous, but is likely to be washed away before the fruits are gathered; in any case sufficient is not likely to be present to do any harm to human beings. A. A.

PLANTING HERBS.

(*Continued from page* 245.)

CHIVES is a herb nearly akin to the Onion, and in earlier days was much valued and extensively cultivated in Scotland and in cottage gardens in England. Chives are less pungent than Onions, and on this account are better suited for flavouring soups, and especially for use in salads. It is a herb that should be in all gardens, as its supplies may be drawn on when the Onion is less easy to obtain. In the spring the Chives have an especial value, as they provide an excellent substitute for young spring Onions. It is getting rather late now for lifting and dividing Chives, and the work had better be left till the autumn. Fig. 1 represents a fairly large piece of a divided clu and the smaller portion on the right of the pict gives a fair indication of the character the pie that are to be replanted should possess. divided pieces should be planted in rich soil rows 1 foot asunder, and about 6 inches to 9 inc apart in the rows. Some growers divide the clu and replant annually, while others are q content to renew the beds every third year. quarters devoted to Chives are improved by be top-dressed with well-rotted manure in the autu and this forked in in the spring.

Sage is a popular herb that was introdu into this country from Southern Europe in 1 It is a subject with a wonderful record for use ness in many parts of the world. For flavour and seasoning it has unique properties, and always in demand. Salvia officinalis is its botan name, and it is classified as an evergreen shr To do well, Sage should be grown in dry, w drained soil, and for this reason cold, damp quar must be eschewed. Deep culture answers in the case of Sage, as the plants generally rem undisturbed for several years before being newed. Seeds sown at the present time sho give good results, but a warm, sunny bor should be selected for this purpose. As soon the seedlings can be dealt with, they must pricked off into prepared beds a few inches ap and a year later be transferred to their perman quarters. I prefer to raise my stock of pla from cuttings or rooted shoots. An old pl such as that represented in Fig. 2 will m many such slips or divided pieces. These la (shown on the right of the illustration) sho be dibbled in a prepared nursery bed 4 inc apart and in rows 6 inches or 8 inches asun and when well rooted they may be transplan a foot apart in rows about 2 feet asunder. Top-d

2.—ON THE LEFT IS SHOWN AN OLD PLANT O SAGE. FROM SUCH A SPECIMEN NUMEROU PIECES SUCH AS THAT SHOWN ON TH RIGHT CAN BE SECURED.

e bed with rotten manure in the autumn and fork is in the following spring. Gather the crop advised last week for Marjoram. D. B. C.

HYDRANGEA HORTENSIA.

EW plants are more easily grown than this ydrangea. Many amateur gardeners are often king what are the best plants to grow in a cool eenhouse, yet few seem to think of the above ant, or, if they do, they fail to grow it with ccess. Very simple are its requirements, and hat plant is more showy, either in a greenhouse, nservatory or as a room plant than this, lasting r weeks in full beauty if properly watered. ydrangeas can be struck from cuttings, obtained om old plants, and put singly in small pots, any me between June and August. When the leaves ow signs of dying off, the young plants can be aced on a shelf till spring. In February, when e plants commence to start growth, move them to 4½-inch pots, which is the size they can flower , using fibrous loam to which some well-decayed anure and sand are added. Take care to pot rmly. J. B.

TREE CARNATIONS.

ANY amateurs are now making praiseworthy fforts to grow Tree Carnations, and with a good mount of success. While paying a visit to a orthern city not long since, I was asked to visit n amateur's garden which was noted for its eneral beautiful appearance, but more particurly for the grand Carnations cultivated in two ng, low, span-roofed houses. The owner, a oung man, did the necessary work in the evenings nd before leaving home for business in the morng. My point is this: If an amateur can succeed growing such fine specimens as I saw in those eenhouses, situated as they were in a neighbourood reeking with black smoke from many tall himneys and rank gases and chemicals, surely thers can in more favoured parts. So every mateur possessing a greenhouse should grow a ew Tree Carnations.

Potting the Plants.—Having succeeded in rooting uttings, either in pure sand or in a very sandy ompost, the first potting must now be done. is in the potting and the general summer treatent of the plants that success mostly lies. The ompost should consist of fibrous loam two-hirds, leaf-soil one-third, with a 10-inch potful f rotted manure, a similar quantity of sand and 6-inch potful of mortar rubble to a bushel of he combined loam and leaf-soil. When potted he young plants must be placed in a cool, airy rame, and have the points pinched out of the lants to induce side shoots to grow. This pinching hould be done about a fortnight after the potting. rom the small pots the plants must be shifted 6-inch ones in due course; and during the ummer-time the plants may be placed on boards the open air. Plants so treated form nice ushes for flowering during the winter months in arm, well-ventilated greenhouses. Cuttings may lso be inserted now; the resultant plants will orm a succession to the others and blossom freely the spring.

MOWING LAWNS.

WELL-KEPT lawn enhances the charm of the welling-house and acts as a fitting frame to the ower-beds. It is very essential that the mowing-achine be maintained in good working order, nd, furthermore, equally important that it be sed in a proper way. I have seen old hands ven mow their lawns exactly in the same way hroughout the season, with the result that the irection in which the machine had been taken as plainly to be seen. In some parts the grass lay forward, pressed down smoothly like well-oiled brushed hair on the human head; and when the besom was brought into use towards the end of the summer, the closely pressed grass was disturbed and made the lawn look rough and shabby. Moreover, owing to the machine having been always driven in the same direction, the surface presented quite a waved appearance, this feature being apparent on naturally damp lawns. The proper way to mow a lawn, taking the whole of the season, is to vary the course of the machine; sometimes it should be taken all round the lawn in one direction; another time reverse the course; again, cut the grass by using the machine crosswise, and so on; then, all other things being favourable, a beautiful, even, carpet-like surface will be maintained. SHAMROCK.

THE TOWN GARDEN.

PLANTING HARDY BORDER FLOWERS.—Taking time by the forelock is a good maxim and proverb, though in the planting or replanting of certain perennial border flowers it is possible to push such a proverb to extremes and to do more harm than good. Hence one might suggest that there is much to be learnt from planting in season and in reason. For example, if we take into consideration the more heavy, retentive and moisture-holding soils for the moment, we shall find that in very large degree for many weeks together—and in a wet season in particular—such soils, by reason of their wetness and paste-like character when touched, are quite unfitted for the work of planting, and any plants, unless of the most vigorous and enduring character, would be almost foredoomed to failure if planted at such a time. By inserting them in wet soils and treading or firming them in their positions, the planter is simply making matters worse and assisting the failures of which he may before long have cause to complain.

THE VALUE OF WAITING.—Presently, however, when the March winds have played their part and April showers give place to May-time's sun and warmth, a much more genial condition of the soil may be found, and the value of waiting—or of planting in season and in reason—will be seen at a glance. Not only will the necessary work be done far more expeditiously at such a time, but there will be the very reasonable hope, if not the assurance, that the plants so cared for and treated will respond with a more liberal and free growth, while the death-rate may be—indeed, will be—reduced to a minimum. For heavy and wet soils, therefore, the planter should select a rather dry time in early autumn or an equally dry time during late spring. To do the work at any convenient moment may prove to possess a far greater number of disadvantages than it is possible to see at the moment. The lighter classes of soils may be dealt with at almost any time, and some of these rarely, if ever, become too wet for doing such work.

FLAG IRISES.—The foregoing remarks on planting are made relative to certain groups of plants that, being hardy and enduring, are dealt with at almost any time, and the Flag Irises are of this number, though perhaps there is no season like April and May for planting these extremely fascinating and delicately coloured flowers. By planting or replanting them at such a time the plant is given the opportunity of a full season's growth and development, and this in the position in which it is to flower another year is of the utmost value. My readers should not plant nor crave for big clumps of these things, a well-formed, fully developed single crown and rhizome (rootstock) giving infinitely better results. If it is desired to form groups—which is, of course, the better way—the individuals should be arranged 6 inches or 9 inches apart, so that presently the whole may constitute an attractive colony.

WHAT NOT TO DO.—Avoid burying the plants of these Irises too deeply in the soil, and observe the lesson which Nature supplies, viz., that the rootstock or rhizome inclines always to ride on the surface of the soil, the plants rooting invariably from the under sides of these roots and penetrating very deeply into the soil. Lessons such as these, and which to the observing planter are very real, are not regarded with adequate seriousness by the amateur in these matters.

HYDRANGEA HORTENSIA AS GROWN BY A READER.

VARIETIES WORTH PLANTING.—In addition to the predominant shades of colour given hereunder, it should be remembered that the petals of nearly all the varieties are freely veined with other colours, which renders them more attractive. Of pale blue shades, pallida, p. speciosa and p. dalmatica are the best. Of yellow shades, Darius, Chelles and aurea are distinct and good. Queen of May is a lilac-tinted flower. Mme. Chereau is white, the petals bordered or pencilled with violet. Victorine has white, purple-blotched flowers. Dr. Bernice has smoke bronze flowers, very distinct; while Princess of Wales, L'Innocenze and Mrs. Charles Darwin are nearly white. E. H. JENKINS.

FERNS AT THE MIDLAND DAFFODIL SHOW.

IN our report of the trade groups staged at the above exhibition we omitted to mention the beautiful group of Ferns staged by Mr. H. N. Ellison, West Bromwich, and for which he received a silver medal. This group was a thoroughly representative one, and all the plants shown were in good condition. The accompanying illustration shows the general effect, but does not reveal the quiet beauties of the individual plants.

Mr. W. A. Watts, Bronwylfa, St. Asaph, North Wales, was awarded a large silver medal at the above show.

DAFFODIL NOTES.

FURTHER NOTES FROM BIRMINGHAM.

SINCE I wrote my last notes my very favourable opinion of Challenger and White Star has been confirmed in various ways. Many good judges have told me that they considered the latter the most beautiful flower in the whole show. Messrs. Cartwright and Goodwin are fortunate people to hold the stock. With regard to the other flower, I have learnt that it is a fairly early raised seedling of Mr. Crosfield's, and that he has no accurate record of its parentage. It is a curious fact that some of the grandest Daffodils in the world are without a pedigree, *e.g.*, Bernardino, Queen of the West, Mme. de Graaff and Barri conspicuus. The stock of Challenger has been acquired by Miss Currey and Messrs. Barr and Sons, which in itself is no mean praise, especially as I know the rimmed-cup flower (like Challenger) is not the type the former's fancy leans to. Dealing with the flowers in the competitive groups first, the following are some of those that attracted attention. Climax (E. M. Crosfield), a grand white, large Magni of great substance. The trumpet is not very wide and the perianth is set at right angles to it. Elf, exhibited by the same competitor, is the roundest-petalled flower that I have ever seen. Some of those curious diagrametic flowers that one comes across in the old floral monthly magazines do not seem so impossible after all as one looked at it. Make a flower out of six glistening white sixpences, and place in the centre a tiny uncoloured gold coin with a reddened edge, smaller than a silver penny, and you have Elf. Sarchedon (A. M. Wilson) is a fine big Poet. It has a prominent red edge to the cup and wide, overlapping perianth segments, which are rather pointed. In Maud Muller, which was in another class, Mr. Wilson has a remarkably beautiful white large trumpet. In its general contour it had much of the grace and look that we associate with refined giant Leedsiis. Berseker, which was also his, is an enormous yellow Magni with a short trumpet and an undulating broad-segmented perianth. Many thought it coarse and rough, and joked about its name; but all the same it is, I consider, a fine thing. Whitewell, although it was shown by myself, I must mention because I have had so many enquiries about it. It is a big, massive-looking incomparabilis, with a large, shallow yellow cup and a thick, round-looking perianth of great substance, which goes white with age. It is striking on the show table and is a magnificent, grand, long-stemmed garden plant. I know none better. Sea Horse was a great flower in Mr. Chapman's "fifty." It was a grand deep yellow trumpet of great substance. A leading expert whispered to me that on no account was I to go away without seeing it. A bloom I liked very much was Messrs. Cartwright and Goodwin's White Nectarine. It was a large-sized Leedsii with a wide, prominent cup, edged a pale pinky citron. The build of the flower was a little like Bernardino. In the large trade groups I noticed Noble (R. W. Wallace and Co.), a truly noble-looking giant incomparabilis of a quiet soft yellow tone; Sahara (Bourne), a pretty flower that might be called a magnified Lulworth; Cavalier (Sydenham), a singularly taking orange red-cupped variety; Cossack (Currey), a rather small flower with an all-red eye and a smooth, white Almira-shaped perianth; Evening (No. 123, Engleheart), a perfectly delightful blend of two soft yellows, the cup on the shallow side and the perianth segments long and of a pleasing texture; Prima Donna (Pearson), a striking flower of the highest class with a shallow red-margined cup and stiff, overlapping primrose perianth; Hon. Mrs. Franklin, the finest of all Pearson's famous "White Queens"; and Great Warley (W. T. Ware), the extra giant bicolor incomparabilis, very large and most striking. Mr. Watts of St. Asaph had some good trumpets of his own raising; but what I thought more lovely than anything else was a vase of the purest white little flowers, the result of crossing moschatus with præcox grandiflorus. They hang their heads like Snowdrops and looked just as chaste and beautiful.

VINCENT SQUARE, MAY 3.

The Daffodil has at this date almost done its duty, which is to be the staple floral ornament of our homes in the early months of the year, just as the Sweet Pea is in summer and the Chrysanthemum in autumn. We are loth to part with them. There will be a "vacant chair" when the last poeticus is over and there are no more to take its place. Let us take, then, a last look round.

Messrs. Barr and Sons were in their usual place on the left as one entered the hall. They had an excellent exhibit which included a fair number of seedlings of their own raising. Snow K (mentioned last week), Snow Shoe (very dec tive and large), Iliad (round and refined) Socrates (massive and strong) were four tip- Poets. Then there were the red-eyed Masterpi and Charles Surface, with its orange red and yel eye and large primrose shell-like petals, look a perfect beauty. I noticed, too, Elf Pearson, a beautiful flower of the giant Lee type, with many of the good "Pearson" quali about it.

Messrs. Cartwright and Goodwin had th now familiar-shaped stand well filled. A sin bloom of a finely formed yellow large trum stood out prominently in the centre. It is o delightful greenish yellow shade in colour, and rather round ends to the perianth segments. T trumpet is very regularly formed and a little the short side. Graham Hyde was another f Magni. Its right-angled perianth made it ve striking. Rudyard Kipling is a fine Poet. has a recurvus-looking eye and a solid wh reflexing perianth.

Messrs. R. W. Wallace and Co. brought a bri lot of Darwin and species Tulips and just three four vases of Daffodils—scalps from Birminghan Colleen, which will be referred to again; Wh

A GROUP OF FERNS AT THE MIDLAND DAFFODIL SHOW.

Sail, with a pretty light-looking cup of two sha of yellow and beautiful white incurving pet just looking as if they had caught a breeze; Rusk a fine large Poet with a large eye suffused w red and a somewhat pointed perianth; Whitew with its fine yellow cup; and that particula restful-looking flower in its quiet harmony of p yellows, Evening.

Messrs. R. H. Bath, Limited, had some ea Tulips. The rather new Hector (orange crims edged pale yellow) was in excellent condition. noticed also examples of variegated-leaved va ties, such as Purple Crown, Yellow Prince a Rose Luisante. These, properly used in t garden, make a very welcome variation in spr beds. Prominent among the Daffodils w Larissa, a large Engleheartii type of flower wit very wide orange red border round the lemon e It had a pure white overlapping and somewh wavy perianth. I was told it was a remarka laster, and that it retains its red colour bet than most do. Matchless was a small flower o similar type, which I thought especially pret Laureate (a good Poet), Una and Weardale Perf tion were good.

Robert Sydenham, Limited, had a capital lot flowers. Included among them were Dairyma

nice, fresh-looking flower, something like ound Lemondrop; Seville, with its immense nge eye; Peverel, a really pretty little thing h an all-orange red cup and a white, round, rlapping perianth. It is so pretty in small es if only it is gathered when quite young. y also had a beautiful triandrus hybrid, Wave st, and Whitewell.

Miss Currey had a small collection in a corner one of the annexes. The striking Leedsii Pole- was in good condition. It has a small, pale ow cup and long, pure white petals.

There were some good and bad flowers placed ore the committee. Two received awards of it, viz.:

Cooksonii, a more than usual regular-formed dsii. It is a small giant. It might be a lady nt if by that one would be taken to mean a ll refined giant. The perianth is beautifully oth and white, and in the centre there is a oth, straight-edged cup something like a wide sonii cup in shape. It was shown by Mrs. man Cookson of Wylam-on-Tyne. May I gratulate her on this superb flower.

olleen, a flower with a wonderful eye. It has reen centre, and then there is a broad space of e citron between it and the lemon yellow edge. as a reflexing, rounded, white perianth which asures 2¾ inches across. It is a decidedly ommon flower and so cool-looking. It was wn by Messrs. R. W. Wallace and Co.

JOSEPH JACOB.

The Daffodil notes from the Rev. Joseph Jacob, ch have been a source of great interest to our lers, are discontinued for the present. Their son is now over; but in the autumn the notes be required for the purpose of indicating the ds to choose for planting.—ED.]

THE HOLLIES.

OF our hardy evergreen trees and shrubs that depend for their beauty throughout the year on foliage and fruit rather than flowers, the common Holly is undoubtedly the most important. Apart from any other sideration, the Holly and its numerous varieties thrive in almost any soil that is not water- ed, though a good, well-drained loam is the t suitable. Under favourable conditions they form large trees, and yet are so patient of the e that a fine specimen can be easily kept within te a small garden. Owing to this feature, bined with the dense growth and spiny charac- of the foliage, the Holly is largely used in formation of hedges, and though it is of rather growth compared with some that are treated his way, a well-kept Holly hedge forms a de- tful feature and a most effectual bar against uders. For formal gardens the common Holly its varieties are among the most desirable of ects, as they will remain in good health how- much they may be trimmed. An illustration his is afforded by the dense thimble-shaped imens at the back of the Palm House at Kew, ch, though quite old plants and rigidly trimmed y year, are in robust health. Such artificial ductions as this, however, appeal only to a ted number, the majority much preferring to a specimen Holly in all its natural beauty. n without destroying this, a plant by judicious ing may be kept within reasonable limits.

TRANSPLANTING HOLLIES.

hese may be successfully moved in the first of September, but the best time of all the to transplant them is during the latter part of il and the first half of May. At that season often get showery weather, which to the Hollies that have been moved is a great help, as it tends to keep them fresh till the roots recover from the check of removal, which at this season of the year takes but a short time. Even then in planting care should be taken to work the soil well among the roots. This is greatly helped by giving a thorough soaking of water as soon as the hole is filled up, as the soil is thereby consolidated and washed into the minor interstices which may be left. Should the weather be dry, a syringing overhead two or three times a day will be of great service. One syringing should, if possible, be done in the evening, as this gives the plant time to take advantage of the moisture before it is dried up by bright sunshine.

TREATMENT OF HEDGES.

While the above particulars as to transplanting refer to specimens, the same will apply as to the time of the year and other matters to the planting of hedges. For this purpose the common Holly, raised from seed, gives the best results. Seedlings may be obtained from nurseries in almost all sizes, but for the formation of a hedge plants from 3 feet to 4 feet in height are preferable, as if smaller one has to wait long for results, whereas larger plants are expensive. In the case of a newly planted hedge, it should not be clipped at all the first year, although it may be looked over in August and any straggling shoots shortened back with the knife. The second season clipping may be begun, this month being very suitable, as short growths, which relieve the otherwise trimmed-up look, are produced before winter. In planting such a permanent feature as a Holly hedge it is essential to do so thoroughly. The ground should be dug to a depth of 2½ feet, and in most soils the incorporation of some well-decayed manure will be helpful. The distance apart at which the plants are to be put will, to a certain extent, depend upon their size,; but, generally speaking, for the formation of a hedge the branches should quite touch or, in some instances, interlace with each other.

PROPAGATION OF HOLLIES.

The common Holly is easily increased by seeds, which, however, lie dormant for at least a year, and generally more, after being gathered. In nurseries they are usually mixed in a heap with sand in the open air, and turned over occasionally in order to promote decomposition of the pulp. They are then sown during the following spring. The numerous varieties may be propagated either by budding or grafting on to seedling stocks of the common kind. This operation is usually carried out in July or early August.

HOLLIES AS BERRY-BEARERS.

Probably the fruitfulness, or otherwise, of the Holly has given rise to more discussion than any other point connected with the tree. This is largely owing to the fact that in some cases the flowers are not self-fertilising; that is to say, the male and female flowers are borne on different plants. In this respect the Holly is extremely singular, as individuals may be met with in which the flowers are wholly male or wholly female. In others they are hermaphrodite; that is to say, the male and female organs are present in the one flower, thus ensuring self-fertilisation. Singularly enough, examples occur in which different types of flowers are found on the same individual. With the approach of Christmas the popular mind turns to Holly berries, and if they are numerous we are told that a hard winter is in prospect, this being looked upon as Nature's extra provision for the birds. This theory is a pretty one, but the fact is that the crop of Holly berries depends upon the weather experienced during the flowering season in spring; if it is then dry and favourable to fertilisation, a good crop of berries is ensured. When the Holly is regarded from a fruiting standpoint, the yellow-berried (fructo-luteo) must on no account be overlooked, as it is so distinct from any of the others.

SELECTION OF VARIETIES.

The following embrace the best in their respective classes: Silver variegated.—Broad Silver, leaves bordered white; Silver Queen; ferox argentea, silver variegated Hedgehog Holly; Handsworth New Silver, very good; pendula argenteo-variegata, of pretty weeping habit; and Silver Milkmaid, the leaves of which have a central blotch of white. Golden variegated.—Golden King, Golden Queen, Golden Milkmaid; flavescens, whose leaves are flushed with yellow; ferox aurea, Golden Hedgehog; and watereriana. Green leaved.—Angustifolia, long, narrow leaves; camelliæfolia, rich green, almost spineless leaves; handsworthensis, a dense grower with small foliage; Hodginsii, large dark green, oval leaves, a popular kind; laurifolia, large leaves with few spines; nigrescens, large deep green leaves; pendula, of weeping habit; Shepherdii, a noble broad-leaved form; and Wilsonii. The massive dark green leaves of this variety, with their regularly defined spines and richly coloured berries, stamp it as one of the most ornamental of all Hollies.

Besides the varieties of the common Holly, other distinct species are the Japanese Ilex crenata, with tiny Box-like leaves; I. latifolia, also from Japan, with leaves as large as those of the Laurel; I. cornuta, a curious Chinese species; I. opaca, the American Holly; and the pretty little I. Pernyii, a comparatively new introduction from China.

H. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Cheap Narcissi (*J. G. Foster*).—In a matter of this kind the better way is to place yourself in the hands of one of the bulb specialists, with a limit on the sum you would like to spend. For the purpose indicated you require a succession of flowers, we imagine, and these in comparatively large numbers. You might, however, add Sir Watkin, Stella superba, Frank Miles and Beauty, all of the incomparabilis set; with Victoria, princeps, albicans, Horsfieldii, Golden Spur and Emperor of the trumpet sorts; such chaste varieties as Leedsii, Beatrice and Mrs. Langtry affording a good succession. Some of these are only one-half or one-third the price you name, hence we think you had better act as we have suggested.

Violet leaves for examination (*Miss M. P. W.*). The Violets are very badly attacked by red spider. They should be immediately fumigated or sprayed with potassium sulphide at the rate of 1oz. to three gallons of water, and the treatment should be repeated after an interval of two or three days, as the eggs are not affected.

TREES AND SHRUBS.

Quick-growing shrubs for seaside (*Falcon*).—We advise you to use a mixture of Veronica speciosa varieties and Tamarix gallica

and Tamarix pentandra, or T. hispida var. æstivalis, as it is sometimes called, with a few plants of Hydrangea Hortensia, for the shrubs which you require; while, if you are in a very cold place, Viburnum lantana may be substituted for the Hydrangea. Near Belfast, however, we imagine that the above plants will thrive. A good tree for an exposed place near the sea is Pinus Laricio var. nigricans, or the Austrian Pine, as it is popularly called. The latter ought to be planted while quite small, otherwise you may experience a difficulty in establishing it. Cupressus macrocarpa and Pinus insignis are other trees which are likely to thrive. The same remarks *re* planting apply to these. A good climber for the purpose is the common Clematis Vitalba, for it is extremely vigorous and quickly forms a good block. If, however, you require a more showy flowering climber, you might try Clematis Viticella.

Pruning double-flowered Peach (*E. L. W.*).—It is probable that your tree is a double-flowered Peach, not Almond. The scarcity of flowers this year may probably be due to bad ripening of the wood last year, or the buds may have been interfered with by birds. It is not necessary to do any regular pruning to the trees, and you will probably obtain more flowers next year by leaving them alone this time. What pruning is necessary is usually confined to thinning out the centre branches and shortening any others which appear to be growing too vigorously for the remainder of the tree. When pruning is required it ought to be done as soon as the flowers fade. If left until the end of the summer or winter the flowering wood is cut away.

Information about a climber (*F. H.*).—The name of the climber concerning which you enquire is Wistaria sinensis. Cuttings are not at all easy to strike, but it may be increased without difficulty by means of layers. These layers should be put down in the winter when the shoots are devoid of foliage. They must be tongued in the same way that Carnations are treated, and the cut portion be buried well in the soil, holding it in position by one or two pegs. Even then they take some time to root; indeed, a couple of years must elapse before they are fit to be separated from the parent plant. We think that you will derive the greatest amount of satisfaction from purchasing an established plant at once and planting it permanently in position. Wistarias and, in fact, many other popular climbing plants are kept in most nurseries established in pots, so that they can be removed at any time. They can be bought at a moderate price.

THE GREENHOUSE.

Solanum Capsicastrum with fly on it (*F. A. M.*).—If the plant is not an extra large one, you may dip all the shoots in a solution of soft soap, 2oz. to a gallon of water, or else use one of the prepared insecticides advertised in THE GARDEN. If too large for dipping, spray the shoots with the insecticide, using a fine nozzle on the syringe for the purpose. If the plant is in a greenhouse, we advise you to fumigate the whole house with one of the several excellent fumigants now on the market.

Pelargonium leaves for inspection (*J. C. Ede, Bournemouth*).—The crippled leaves of Pelargonium show no signs of insect or fungus attack, and no doubt, with proper attention to watering and ventilation and the maintenance of a suitable temperature, the new leaves will grow away healthily.

Taking cuttings of Hydrangeas (*H. B.*).—The minor shoots of the Hydrangea—that is to say, those which are not sufficiently vigorous to flower—will make very good cuttings, which can be rooted without difficulty. You do not say whether you have any appliances for the striking of cuttings; if so, they will root well in a close propagating-case like that employed for the propagating of Fuchsias, Heliotrope and similar plants. It is very necessary to keep the cuttings close and shaded, and if you have no other appliance, a box sufficiently deep to take the cuttings with a pane or two of glass laid over the top will answer the purpose very well. A length of 4 inches is very suitable for the cuttings, which should, with a sharp knife, be cut immediately below a joint, removing at the same time the two bottom leaves for the purpose of insertion. Previous to this, however, the pots should be prepared, as the sooner the cuttings are inserted after their separation from the parent plant, so much the better. Pots from 4 inches to 5 inches in diameter are very suitable for the purpose. These must be quite clean, and some broken crocks placed in the bottom to about one-third of their depth. Then fill the pots with a mixture of equal parts of loam, peat and silver sand. This need not be sifted, but broken up finely with the hand, and any rough portions thrown out. The pot or pots should then be filled with this compost, pressed down moderately firm. The cuttings must then be dibbled therein with a pointed piece of wood, taking care that the soil is firmly pressed against each cutting, thus holding it securely in its place. When the pot is finished, a thorough watering should be given through a fine rose, and as soon as it has drained a little the pot should be stood in the case and covered with glass. In dibbling in the cuttings overcrowding must be guarded against, and at the same time they need not be spread out too much, as economy of space is generally a consideration. The after-treatment consists in shading the case from the sun, and in a daily examination of the cuttings to see whether water is needed and to afford an opportunity for the removal of any decaying leaf or leaves. As soon as the cuttings are rooted, which should be in three weeks to a month, air must be given on the case, and in a few days the young plants can be inured to the ordinary atmosphere of the greenhouse. They may then be potted singly, using a mixture of loam and leaf-mould with a little sand.

MISCELLANEOUS.

Stopping Vine laterals during summer (*R. K., St. Petersburg*).—We think the old orthodox method you speak of is still the best for stopping Vine laterals during summer, and you will be quite safe in continuing to adopt it. Without seeing the young injured shoots of your Vines it is not possible for us to say with absolute certainty what it is which has caused the injury; but from your description we are inclined to conclude that it has been caused by a very minute form of red spider, so small as scarcely to be discerned by the naked eye, but obvious enough under the microscope. Attacks on Vines in this country by this spider are infrequent; but when they do happen, it is the young leaves on the strongest and sappiest branches which invariably suffer the most, as in your case. The best and only way of curing it is by the continued application of flowers of sulphur to the injured part so long as there are any spiders left alive. If the injury has not been caused by this spider, then we think some species of fungus is responsible. Sulphur is the best remedy in either case.

Various questions (*R. K., St. Petersburg*).—1. The reason for the flowers turning black, we think, must be because they have not been developed quickly enough through the temperature being too low, decay partly taking place before the flowers had properly expanded. 2. There is no better remedy to apply for the destruction of the rust fungus on winter-flowering Carnations than dry flowers of sulphur. By persevering in the application of this while any of the fungus is alive the plants may be cleared of it. At the same time, you should guard against the conditions which favour its growth, namely, a too damp atmosphere and too much water at the roots of the plants in winter. 3. The new Peach Rivers' Peregrine is favourably spoken of by all who have grown it. It is one of the earliest to ripen. It forces and crops well, is of good size, handsome appearance, and is among the best flavoured of the early sorts. 4. Peaches grown in pots require very little pruning. It is best carried out after the trees have set their fruits and are in full growth, when the fruit is about the size of a Cob Nut. Sometimes there are two shoots of the current year's growth on the branch above the fruit which has set on that branch. The branch bearing these two shoots should be cut back to where the lower of the two shoots starts from, thus doing away with a part of the old branch and one shoot of the current year's growth, thereby preserving the good balance of the tree and preventing overcrowding of the branches. It sometimes happens that the shoots of last year's growth do not carry any fruit at all, but have two or three young shoots of the current year's growth on one. If you think the tree is inclined to be too crowded, two of these may come away by cutting off the branch which bears them down to the lower young branch, which, of course, must be encouraged to grow, and which will grow stronger after the others have been cut off. Good judgment must be exercised in carrying out this work. Some of the trees may not require any pruning at all, being none too fully furnished with branches. The young shoots are usually stopped at the sixth or seventh leaf, and again at the second growth if necessary.

Name of fruit.—*Miss Hinchliff.*—Apple Five Crown Pippin.

Names of plants.—*J. E. Gardiner.*—Berberis Darwinii.——*L. S. O.*—Spiræa Thunbergii.——*Harold Moore.*—Prunus Padus, the Bird Cherry.——*E. D.*—Kerria japonica flore-pleno.——*F. S.*—Narcissus Butter and Eggs.——*G. H.*—A seedling variety of Viola odorata. Flowering late is not unusual.——*C. W. Frost.*—The seed is that of Poinciana regia (Royal Peacock Flower), a native of Madagascar. It is a tree and grows 30 feet to 40 feet high, producing racemes of bright scarlet flowers. It will require stove treatment.——*Names of Roses sent without letter.*—We believe the Roses are as follows: 1, Marie van Houtte; 2, Catherine Mermet; 3, Prince de Bulgarie; 4, Grace Darling.——*F. Lurani.*—1, Epimedium musschianum; 2, E. macranthum violaceum; 3, E. pteroceras; 4, E. musschianum. Another set of plants from the same correspondent comprises: 1, Androsace sarmentosa; 2, Cystopteris fragilis; 3, Polypodium Dryopteris robertianum.——*H. E. T.*—The Tulip is a form of T. Haageri. The Narcissus is probably an unnamed seedling.——*Anxious.*—The Geranium is good, but too much like existing varieties to deserve a distinct name; 3, Aubrietia deltoidea var.; 4, Omphalodes verna; 5, Phlox stellaria var. lilacina; 6, Olearia stellulata.——*F. B. M., Guernsey.*—Medicago orbiculare.——*U. M. H.*—Rhododendron fragrantissima.——*Anemo.*—1, Phillyræa decora; 2, Leucothoe Catesbæi; 3, Cassiope tetragona; 4, Daphne blagayana; 5, Pulmonaria angustifolia; 6, Anemone Pulsatilla; 7, Anemone hortensis; 8, Erythronium Hartwegii; 9, Corydalis tuberosa albiflora.

SOCIETIES.

THE NATIONAL AURICULA SOCIETY SOUTHERN EXHIBITION.

NATURALLY, in the large hall, which was otherwise with brilliant-hued flowers, the exhibition of the N Auricula Society, held at Vincent Square on the 3r and occupying as it did but three sides of ordinary looked somewhat small. Yet to the Auricula doubtless it presented much more of interest than the other objects in the hall. The edged and self occupied one side table, the much more attractive another side, and a third was utilised by the Polya and what were staged as apologies for Primroses absence of a once-attractive class for Primula was to be greatly regretted.

Show Auriculas.—Classes for these included twenty-four plants, one for twelve plants, one for six several for single plants, all open, and one for competitors of four plants. In the chief classes, as Mr. James Douglas o Great Bookham, Surrey, was cible, being placed first in the twenty-four and the In the first-named c ass Mr. W. M. Shipman, Altri was second; and Mr. C. Turner, Slough, third. twelve plant class Mr. W. Smith, Bishop's Sto was second; Messrs. Phillips and Taylor, Brs third: and Mr. Shipman fourth. A- these class tained the finest flowers, we give a selection of tionally good ones: of edged flowers, Seamew, Lightbody, W. Smith, Mrs. Henwood, Olympia, Heather Bell, Shirley Hibberd, Marmion and Eu of selfs, Belladonna, Favourite, Mrs. Phillips, H Weir, Victor and Mikado. Naturally, selfs are few edged flowers; but why the first-named section d include the beautiful yellows rather than relegatin foolishly to the fancy section it is hard to understa classes for six plants and four plants, from whi trade were excluded, Mr. W. H. Parton of Birmingha first with the six, and Mr. J. Bennett-Poe, Ashley was second. With the fours Mr. F. W. Price o ham was first, and Mr. Bennett-Poe second. In a class for four plants for new-comers, Mr. J L. Leatherhead; Mr. H. M. Taylor, Cheam; Mr. R Beer, Bickley; and Mr. Harrison, Leyton, took the In these smaller classes the best flowers were Lightbody, Mikado, Rev. F. D. Horner, Mrs. H and George Rudd. Single plant classes for each produced in the grey edges sixteen plants, Mr. coming first with George Lightbody, Mr. Shipma second with the same variety. With green edges, plants being staged, Messrs. Phillips and Tayl first with Mrs. Henwood, a very fine form; and Mr. P Poe was second with the same variety. Sixteen edges were shown, Mr. Bennett-Poe coming fir Acme, Mr. F. W. Price being second also with that In the self class Mr. Douglas was first with Queen o Mikado taking second and third places. The flower in the show section was Mr. Douglas's Lightbody. It is well worthy of note, as showi limited, after all, is the advance in edged Auricul George Lightbody was raised some sixty to seven ago.

Alpine Auriculas.—These, because of th blooms, rich-hued grounds and golden cent greatly predomnated and presented a beautiful In the chief classes for twenty-four plants and plants respectively, Mr. Douglas was first in ea Messrs. Phillips and Taylor were second. In th class Mr. Shipman was third and Mr. C. Turner while in the lesser class Mr. C. Blick, Hayes, w and Mr. Shipman fourth. Here, again, in these were found the finest blooms. Beautiful gold were Olivia, Ben Jonson, Claud Hulers, Golde Sunrise, Duke of York, Majestic and W. Smi white or cream centres, Argus, Teviotdale, Thetis, Douglas, Janet, Mrs. James Douglas and Ad were good. Mr. C. C. Price, Brentwood, had t six plants, Mr. F. W. Price coming second and Staward, Panshanger, third. With four plants Mr Price, Mr. Parton and Mr. H. M. Taylor took th in that order. In the single gold centre plant c F. W. Price was first with Duke of York, the same coming second. With white centres Mr. B. C Enfield, was first with Thetis, the same variety also second. Mr. Staward had the best six seedlings, all golden centres. The premier variety of alpines was shown by Mr. F. W. Price, having a gold centre an dark crimson ground. Mr. Douglas was the only e of twelve fancy show Auriculas. Certificates o were given to Mrs. G. F. Tinley, rich pure yellow sel Dorothy Cutts, reddish buff self; and Mai, reddis nut, all from Mr. Douglas. A better method of all Auriculas is very badly needed, as at present are most difficult to find.

Polyanthuses.—In the class for twelve plants Mr. S. Mortimer, Farnham, was well first, havin well-bloomed, bright-coloured ones. Mr. Stawa second. In the compact group class Messrs. Sto Storrie, Perthshire, set up, less crowded than o charming variety, all very beautiful. Mr. Mortim second, and Mr. J. Crook, whose fine flowers had suffered from hail, was third. In the class for singl the product was disappointing. Mr. Bartlett, S Hill, was placed first with a fine white, Messrs. coming second with a yellow form. Mr. Staward only exhibitor of twelve Primroses in pots. These bear no comparison to the beautiful varieties shown years ago. An award of merit was most de given to Polyanthus Brilliant, a deep rich fine shown in three baskets by Mr. B. Ladhams, Shirl Southampton.

THE GARDEN.

No. 2010.—Vol. LXXIV. May 28, 1910.

CONTENTS

THE MAY TULIP .. 261

NOTES OF THE WEEK
Forthcoming events 262
Mr. J. Crook's polyanthuses 262

CORRESPONDENCE .. 262

GARDENING OF THE WEEK
For the South and South Midlands .. 263
For the North and North Midlands .. 263

GREENHOUSE
Cestrums and their culture 264
An Odontoglossum house in Scotland 264

Workers among the flowers 264

Notes and queries from a Surrey garden .. 265

FRUIT GARDEN
Fruit notes 265
An excellent late-keeping Apple .. 266

FLOWER GARDEN
A group of tender succulents on stone steps 266

FLOWER GARDEN
The pyramidal Saxifrage 266
The Balearic Sandwort 266
A water garden .. 267

TREES AND SHRUBS
The Crab Apples .. 267

GARDENING FOR BEGINNERS
Garden work week by week 268
Culture of the Lettuce 268

THE TOWN GARDEN 269

KITCHEN GARDEN
Broccoli in spring .. 270
French Climbing Beans for summer and autumn use 270

Editor's Table 270

Primula Unique .. 271

ANSWERS TO CORRESPONDENTS
Flower garden .. 271
Trees and shrubs .. 272
Greenhouse 272
Rose garden 272
Fruit garden 272

ILLUSTRATIONS.

Mr. Alexander Dean, V.M.H. 263
The Odontoglossum house at Craighead, Bothwell .. 264
A group of tender succulents outdoors 265
A noble plant of the pyramidal Saxifrage 266
Nymphæas and other water plants 267
How to grow Lettuces 268, 269
The new Primula Unique 271

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE MAY TULIP.

THE Darwin and Cottage Tulips have brought a fresh and enduring interest to the English garden. Daffodils have passed away until next spring, but the Tulips are now in their richest beauty, as may be seen in the nursery of Messrs. Barr at Surbiton. The colouring of the flowers, as we have before pointed out, is remarkable, varying from white to the deepest maroon, with many intermediate shades. There is not only colour, but strength of stem, and broad, blue-grey foliage, which throws into rich relief the large, goblet-shaped flowers that give colour to the garden at this season.

These groups have a special interest. The Darwin forms are derived from the Gesner's Tulip (Tulipa gesneriana), which is one of the most welcome for creating masses of colour, the flowers intense scarlet, with a deep purple base that throws into relief the richness of the perianth. Distinguishing features of the May Tulips are strength of stem, breadth of foliage and variety of colouring. They are essentially bulbs for the May garden, and should be planted in masses to achieve the finest effects. Those who are unable to see a collection in bloom for the purpose of selecting the colours that are suitable to individual tastes may be interested in the following selection: Of the Darwin group, which differs little from that called the "Cottage," among the most beautiful were: Carminea, a warm rose carmine colour, with an intense purple-blue base; Clara Butt, soft rose; Corydon, silvery heliotrope; Erguste, deep mauve; Glow, vermilion; The Sultan, intense purple; Loveliness, soft rose; Pride of Haarlem, bright salmon rose suffused with scarlet; Remembrance, lavender; Rev. H. Ewbank, heliotrope; and Duc van Poortvliet, warm salmon rose.

The "Cottage" Tulip is so called from the fact that the bulbs have been collected from the cottage gardens of England, Scotland and Ireland and from Savoy. As Messrs. Barr point out: "The name of 'Cottage Tulips' we have given to the various beautiful May-flowering Tulips, which have mostly been found growing in old cottage gardens in England, Scotland and Ireland, where they have been in some cases for over fifty years. Some have also been traced to old French gardens. They are all very beautiful, presenting a great variety in form and colouring and having none of the stiffness of other Tulips. On account of their extreme hardiness they are specially adapted for permanent hardy flower borders, where they should be freely planted in large clumps and masses. They may also be naturalised in grass, wild gardens, etc., where during May they present a charming picture. Those who have visited Kew Gardens in spring will have noticed these Tulips planted freely in grass, and also used largely in filling flower-beds on the lawns."

Richness of colour is an attribute of this group, and one has only to mention such kinds as Bouton d'Or, which is also known as Golden Beauty, to remind Tulip-lovers of the great colour beauty in this race. A note may also be made of Dom Pedro, a variety that has been well described as mahogany in colour; Elvira, rich crimson red; Faerie Queen, heliotrope flushed with rose; Inglescombe Pink, one of the most beautiful of all Tulips—rose suffused with salmon—and the other two of this group, the names of which suggest the colour—Inglescombe Scarlet and Inglescombe Yellow; La Merveille, orange and rose; Leghorn Bonnet, orange yellow; macrospeila, rose scarlet and conspicuous for its fragrance; Mrs. Moon, golden yellow; Picotee, white with rose margin to the segments; retroflexa, yellow; and The Fawn, rosy white.

Unfortunately, the Darwin and Cottage Tulips degenerate, at least in hot and dry soils, but much of this is due to the wrong depth at which the bulbs are planted. If the soil is heavy, it is recommended that the bulbs should be planted 5 inches to 7 inches deep, and in light ground from 6 inches to 7 inches. When this practice is followed the flowers maintain their normal form. It is impossible to deal with the Tulip family in these brief notes, but they are flowers that should play an even greater part in the future in the adornment of our gardens, and the rich variety of colouring opens out many opportunities for artistic contrast. The importance of the Tulip as a garden flower for cutting must not be forgotten. Its strong, thick stems are most welcome for tall vases. There are the species also—of which gesneriana is the most splendid—a Tulip of scarlet colouring, the flowers supported on tall stems. When they open out to the sun a deep bluish base is disclosed.

The Parrot Tulips are more quaint than beautiful. One enjoys a vase of them in the house, but in the garden they are disappointing, the long, claw-shaped segments weighing down the stem. A great

future is before the Tulip. Byblœmens, bizarres and the other Tulips that are described as "florist" possess many charms, but it is the Darwin and Cottage types that bring beauty to the garden during the month of May.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 2.—Linnean Society's Meeting.

June 4.—Société Française d'Horticulture de Londres Meeting.

June 6.—National Fruit Growers' Federation Meeting, 2 p.m.

Portrait of Mr. William Kelway.—There is at the Exhibition of Paintings of the Royal Academy, now on view at Burlington House, a striking portrait of Mr. William Kelway, senior partner in the firm of Messrs. Kelway and Son of Langport. It is by Harold Knight, and has a prominent position on the line. It need hardly be said that as a work of art it is excellent, Mr. Knight being well known as one of the most talented artists of the day.

Makers of coir netting.—We have had numerous enquiries for the makers of coir netting referred to by the Rev. J. Jacob in his article which appeared in our issue for May 14th. This netting is made by Messrs. J. Clifford and Sons, 85, Bank Street, Maidstone.

American Gooseberry mildew in Norfolk.—The Board of Agriculture and Fisheries have received information that the summer stage of American Gooseberry mildew (Sphærotheca Mors uvæ) was discovered in a Norfolk garden on the 12th inst. All Gooseberry growers are advised to examine their bushes carefully and, should any sign of disease be found, to spray their bushes with a solution of liver of sulphur (1lb. to thirty-two gallons of water). A leaflet describing the disease and giving directions for dealing with it can be obtained from the Secretary, Board of Agriculture and Fisheries, Whitehall Place, London, S.W., gratis and post free. Letters so addressed need not be stamped

Mr. J. Crook's Polyanthuses.—This veteran grower of these beautiful spring flowers, who started his first strain so long since at Forde Abbey, Somerset, and has continued to grow it on a much larger scale at Camberley, Surrey, has this year again a very beautiful show, masses of thousands of plants blocked in colours, white, yellow, red, crimson, mauve, buff, apricot and mixed. I saw them a few days since. Beautiful as a few plants are in a garden, when seen in huge breadths they are wonderfully effective. When separate colours are not required—and all who garden do not want them—mixed colours give a charming display, with the result that if so desired the plants can be for the second year got into separate colours, those being marked beside the plants. It is not the huge and coarse flowers which give the best heads of bloom or the most pleasing effects. Those which have clear-cut yellow centres always excel those which have dull or buff ones, however large they may be. Now is the time to get seed and sow it to secure a fine show of bloom next spring. Mr. Crook sows his seed in September, winters the plants in a frame, then plants out in spring, and thus secures an extra fine show.—D.

Hepaticas at Camberley.—In Mrs. Stotherd's beautiful and, indeed, delightful gardens, Heathcote, Camberley, I was surprised to meet, in some mixed hardy borders, with quite huge clumps of Hepaticas, especially of angulosa. That variety seemed to luxuriate in the black boggy or peaty soil of the district, in which all sorts of things, especially conifers and Rhododendrons, thrive abundantly. With such a soil, how much it makes one wish that a complete collection of those pleasing, very early border flowers, the Hepatica section of the Anemone family, could there find a permanent home. Of these, besides the fine single blue angulosa are double and single red, double and single blue and double and single white, and there may be one or two others. Formerly we found one or two of these Hepaticas in cottage gardens. Generally now they are seldom seen. What seems probable is that where angulosa will thrive so luxuriantly, all other members of the tribe would do equally well.—A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Plane tree disease.—I do not remember to have seen the scientific name of the fungus that in some districts is so destructive to the foliage of the Plane tree, and it is one of the things for which it is extremely difficult to find a remedy. Trees of medium size might certainly be sprayed early with Bordeaux mixture, but when they have attained a large size this is practically impossible. Although there appears no evidence that the tree is really injured by the attack so far as the wood is concerned, the fact that it is denuded of a great quantity of foliage robs it to a great extent of its summer beauty. Notes taken for several years show that the disease always makes its appearance about the same time, *i.e.*, when the foliage is about half size. The fungus strikes suddenly and effectually, sometimes through the stalk, but more frequently quite at the base of the leaf where the stalk joins it, going clean through the stalk and midrib and forming a spot in the majority of cases about the size of a small coin. Sometimes it catches the midrib about halfway up the leaf, when the upper part of this will droop and gradually curl up, leaving the lower part unattacked. It seldom, however, misses the stalk, and leaves so affected are not long on the tree. At a rough computation I should think in the majority of seasons about three-fourths of the foliage is destroyed. The fact that trees are nearly always affected at about the same stage of growth would almost indicate that there are at that time certain conditions rendering them peculiarly susceptible to attack; but if this is so, I fear it does not help us very much in the way of remedial measures. At any rate, in the case of large trees in a season like the present, when the foliage is considerably later than usual, it will be interesting to note if it escapes attack. The susceptibility of the Plane to this disease opens up again the question of the best trees for town planting, about which a lot of rubbish is written by many absolutely unacquainted with the subject, trees being recommended that are totally unfit. A short list of substitutes would be, for very wide streets and open spaces, the Lombardy Poplar and the Tree of Heaven (Ailantus glandulosa), and for more confined areas the Locust Tree and its several forms, of which fastigiata is very similar in habit to the Lombardy Poplar, the Birch, the Bird Cherry and the Mountain Ash; for still smaller spaces there is an infinite variety of suitable things that might be used. I have omitted the Lime and Horse Chestnut from the above list; the one is peculiarly susceptible to insect attack in the way of caterpillars, mites and aphides, causing an early disfigurement of the leaves, and the growth of the other is too spreading except for large, open spaces. In the way of town planting it is gratifying to note that there has been very considerable improvement of late in the better class of suburban gardens by the introduction of many more flowering trees and shrubs; the Snowy Mespilus and many members of the Prunus family have been very beautiful this spring.—A. G. B. [The disease referred to by our correspondent is Glocosporium nervisequum. All affected leaves should be collected and burned as they fall from the tree. —ED.]

Earthing-up Potatoes.—This is one of the garden practices common to all who grow Potatoes, and in so many cases adopted because traditional. But for all the work done in gardens it is well to be able to give good reasons, otherwise it becomes mere rule of thumb and devoid of intelligence. A new reason is furnished for the practice by "Shamrock" at page 230, although hardly a satisfactory one. The assumption that new tubers are formed more on the south or sunny sides of the plants than on northern ones is novel, but here ill founded. On plants grown singly on spaces of 9 square feet. growth of stems and tubers is found to be the same all round. Such plants give the best test of this theory, because when Potatoes are planted in rows 2½ feet apart and running to any point of the compass, one row shades another, and light and air all round are much the same. Good reasons for well moulding up Potatoes are, first, the protection the plant-stems get in windy weather, as, if blown freely about, the stems are often bruised or broken beneath the soil-line, and thus are greatly injured. Then, when the haulm has died away before lifting is done in the autumn, the rows are easily discerned because in the form of ridges. Further, were not a good coat of soil placed over the newly forming tubers, many near the surface would push out into the light and air and thus become greened and unfit for food. Finally, there is the important reason that tubers thinly coated with soil are much the more readily exposed to infection by the minute spores of the Potato fungus, as these spores will as readily attack tubers through their fine tender skins as they will leaves and stems. The thicker the coating of soil over the tubers, the better are they protected from that form of attack. When Potatoes are grown in rows and the moulding up is done by means of a hoe, it is difficult to prevent heavy rains washing spores down the stems into direct contact with the young tubers. Where large sets are planted 3 feet apart and good mounds of soil are raised about each plant, when the tops have become strong and laid out a large spit of soil placed directly over the stems effectually checks access to the tubers by means of washed-in spores.—A. D.

The Young Naturalists' League.—Will you allow me to make known the existence of this league through the columns of your paper? The league was founded by me twelve months ago, and on its first birthday celebrated a membership of over 3,000. In view of the interest now taken in Nature-study in our schools and the recognition accorded to it by education authorities, I am desirous of making the aims and objects of the league more widely known and its work more useful and far-reaching. The time has now arrived for the appointment of branch honorary secretaries, especially school masters and mistresses and those having control of boys and girls; but membership is not restricted to school children, as we welcome anyone who is desirous of joining or supporting the society in any way. I shall be glad to hear from anyone willing to help me in the promotion of this league and to forward full particulars concerning same on

pplication. My name will be known to many of our readers as a naturalist and the author of a umber of books specially adapted for young eople; and it is because of the real interest I take n the Nature-study movement, the success the eague has already attained, and the good its xtension is capable of doing, that I am desirous of idening its sphere of influence through the agency f your valuable medium.—W. Percival Westell, .L.S., *Chester House, Letchworth, Herts.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plants Under Glass.

CHRYSANTHEMUMS.—A commencement may now be made with the final potting of plants that are grown for exhibition purposes. Place the strong-growing varieties in 10-inch pots and the weaker in -inch. A suitable compost for this work is made p with loam, rotten cow-manure, a small quantity f soot and some approved fertiliser. To four arrow-loads of loam add one of manure, a 6-inch otful of soot, and the artificial manure according o the directions supplied by the vendor. Mix hese thoroughly together and place the whole nder cover to prevent it getting too wet. After otting, secure each plant with a short stick for rotection against wind, and stand them out in ows where they are to remain through the summer.

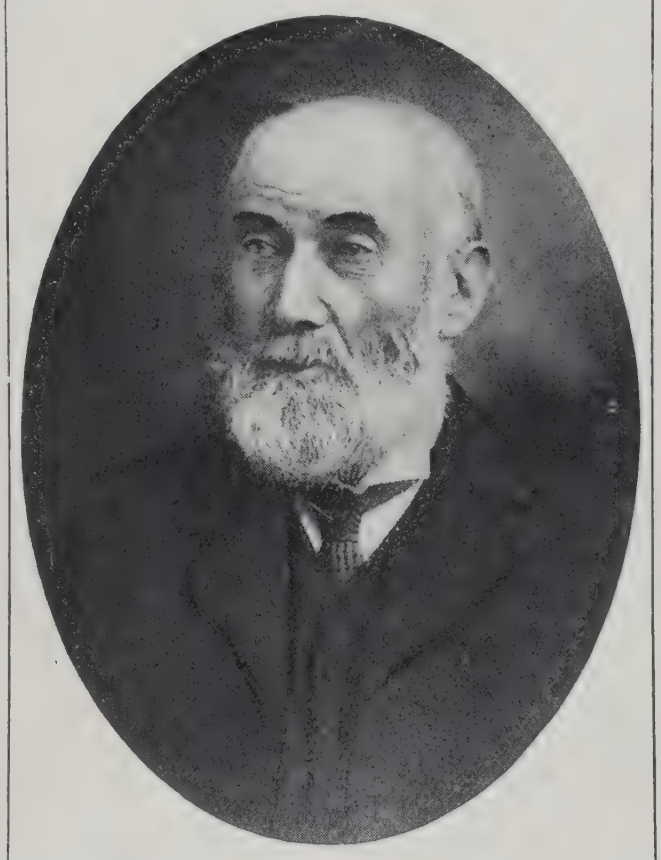
Perpetual-flowering Carnations.—Autumn-rooted lants will now be ready for a shift into 7-inch or -inch pots. The soil for potting should be made p in the following proportion: To three barrow-ads of loam add one-half of leaf-soil and one-half decayed manure. To this add half a barrow-ad of sand, a small sprinkling of soot and old ortar rubble (sea sand for preference). These ust be well mixed together by turning several mes. After potting is completed, place the plants cold frames, keeping them fairly close for a few ays, after which the lights may be removed during y weather. Pay close attention to the stopping later plants to obtain plenty of breaks for the ilding up of shapely plants.

Flower Garden.

The planting of the flower-beds for the summer splay should be commenced. Where Geraniums e employed for this purpose, they may be the st to be taken in hand, leaving Begonias and b-tropical plants till the last. Make the beds m and mark them out at the required distances. are should be taken to see that no plants are dry hen put in. Effective beds can be made up as llows: Calceolaria amplexicaulis pegged down th Salvia patens for dot plants; the soft yellow the Calceolaria goes well with the fine blue of the lvia. Ivy-leaf Geranium Souv. de Chas. Turner d Abutilon Savitzii make a pretty bed. If the eraniums are pegged down, edging plants may be pensed with altogether. Humea elegans is an cellent subject to associate with a carpet of eliotrope in large beds. Paul Crampel is one of e best bedding crimson Geraniums we have, and ould be planted in a bold style. If it is preferred, ds of these may be relieved by adding dot plants the white Marguerite and edged with blue Lobelia, chsias carpeted with Violas, Cannas with Ver-nas for a carpet, and Grevillea robusta with eranium Mme. Crousse for a groundwork. These a few suggestions, but in many places the rdener has to make the best of the plants at his posal. Regarding Begonias, these undoubtedly create the best effect when planted one colour in a bed. They require a rich soil and a fair amount of moisture. The formal designs in flower-beds have now practically disappeared, and bolder effects are usually aimed at. Mention must be made of the value of Antirrhinums for bedding purposes. The colours are exceedingly fine in some of the varieties, and they should be planted largely.

Kitchen Garden.

Brussels Sprouts.—The first batch of these, if raised and transplanted as advised in earlier calendars, will now be large enough to put out in their permanent quarters. A piece of ground should be left expressly for the first planting, avoiding that which has previously borne a green crop, as club-root is often caused by continuous cropping with these. Draw drills 2 feet to 2 feet 6 inches apart, according to the variety, and set out the plants 2 feet apart. Showery weather is preferable for this operation; otherwise, if dry, a good watering must be given.



MR. ALEXANDER DEAN, V.M.H.

See page 264.)

Celery.—The principal crop of Celery should be planted in trenches as advised for the early one in a previous calendar.

Cauliflowers.—Plants that are intended to give an early autumn supply ought to be put in their permanent quarters without delay. Plant in drills 2 feet apart and the same distance between the plants.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Bedding Out.—Until the beds and borders are filled with their summer occupants, little else can be thought of in this department. Endeavour always to get out all the hardier subjects first, as even yet a day or two of cold east wind will do a great amount of harm to such tender plants as Begonias, Alternantheras and Iresines, even if they have been well exposed for some time. Keep such plants back, therefore, until all the others are planted, as if they get a check at planting-time it is long before they recover. It is well also not to be in too great a hurry with Dahlias, as these give the best results if they can grow right away and are not checked by a low temperature, especially just after planting.

Kitchen Garden.

Onions.—The thinning of this crop should be seen to as soon as the little plants are large enough to handle. For ordinary purposes rather small bulbs are favoured by the majority of cooks. Do not, therefore, thin too severely. After thinning, dust well with soot and run the Dutch hoe between the lines. In dry weather an occasional soaking of water is very beneficial.

Carrots.—Early thinning of this crop is even more imperative than in the case of the Onion. It is rather tedious work, but well repays the labour. Give the Carrots a good dusting of soot or wood-ashes as advised for the Onions. In few gardens nowadays can this crop be depended on, as either wireworm or Carrot fly grub usually attacks them. There does not seem to be an entirely reliable remedy or preventive. The best crop I had of recent years was bedded thickly with mowings from the lawns; but that this is not really a specific I proved the following year, as the crop was entirely lost, although treated in the same way. A friend who grew really fine roots and never seemed to fail protected his by sprinkling the plants liberally about once every ten days with a solution of ordinary soft soap and water. I have tried this, but with poor success; but certainly the man who gave me the wrinkle could grow Carrots, and it might be worth while for others to give it a trial. It is at least cheap and easily applied.

Turnips.—It is only young, tender roots that are tolerated in most establishments, unless for soups, when a fair-sized Turnip is not such an objection. To have finely flavoured bulbs a small sowing should be made once a fortnight until the middle of July. Much depends on taste as to whether white or yellow sorts should be grown. The white grows quickest, but the yellow remains much longer fit for use. Good rich soil is essential, whichever colour is cultivated. For winter use a good tender Swede is much favoured by many, and if seed of a good garden variety like Sutton's Magnum Bonum is sown at once on good ground in an open, sunny situation, fine roots will be available from November onwards.

Peas.—The last sowing of late Peas must now be made in the later districts. Some gardeners favour the sowing of an early variety in mid-June; but the most that can be said in favour of this method is that a dish or two of Peas may ordinarily be had about the end of October. Certainly they are Peas, but the flavour is so poor that most people would prefer to be without them. If a good variety of late Peas is sown now, the plants will produce very late pickings and with fair flavour, too. Royal Salute and The Gladstone give me most satisfaction, and for a slightly earlier locality I would name Late Queen. These varieties are usually free from mildew and stand the cool, damp autumn nights better than most. Autocrat is grand, too; but I find that if there happens to be a spell of wet weather when it is in flower, the pods fill badly.

Chrysanthemums.

Final Potting.—The very first opportunity must be taken now to get these into their flowering pots, which must be perfectly clean and well crocked. The soil should be in a nice working state, as it is imperative that very firm potting be given at this time. Anyone in doubt as to the proper compost to use should consult the pages of The Garden regularly, when they will get all needful information.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow

THE GREENHOUSE.

CESTRUMS AND THEIR CULTURE.

AMONG this family are several species particularly suitable for the cool greenhouse or conservatory. When grown in pots they require as much food as an exhibition Chrysanthemum, but seldom get it, and in consequence present a miserable, starved appearance. It is when planted out in a rich border and supported by a strong stake or placed against a pillar that they are seen at their best; their ample foliage assumes a deep green and the flowers are more brilliant and freely produced. Cestrums are not expensive to buy, and are easily propagated from soft shoots placed in pots of sandy soil plunged in slight bottom-heat. We have four species planted in a house from which frost is barely excluded in winter and freely ventilated at all other times.

Cestrum Newellii is undoubtedly the finest and, so far, the strongest grower. A plant placed against a pillar two years ago has now shoots of 9 feet in length, clothed from the base with deep green leaves and terminated with huge panicled clusters (18 inches long and 9 inches in width) of scarlet red flowers. If the shoots are looped up lightly, they curve outwards and produce a fine effect.

C. (*Habrothamnus*) *elegans* is well known and grows freely under the same conditions; but its inflorescence is smaller and the purplish pink flowers are far less striking.

C. aurantiacum is more shrubby in habit and has only attained a height of 4 feet. It increases in breadth rapidly and bears a great profusion of its orange flowers during summer. Prune in spring, or earlier in a warm greenhouse.

C. Smithii is a seedling from C. elegans. It is a gem. Since it was planted out it has never ceased to flower, and each branchlet carries a rosy pink cluster, and this right throughout the winter. Its free-flowering character checks its growth, for it has only attained a few feet in height in two years, although apparently in good health. In a cool temperature it only needs thinning occasionally. These plants add dignity and beauty to the conservatory or greenhouse, and some good specimens can usually be found at Kew.

J. COMBER.

Nymans Gardens, Handcross, Sussex.

AN ODONTOGLOSSUM HOUSE IN SCOTLAND.

I TAKE the liberty of sending you a photograph of our Odontoglossum house here. It is a long time since I contributed to THE GARDEN, but I have been a constant reader, nevertheless; indeed, I have been reading THE GARDEN for the last twenty years. In my opinion it is the most up-to-date and useful gardening paper to be had, suitable for both professional and amateur gardeners—a marvellous pennyworth. I have heard the remark among gardeners that THE GARDEN is only suitable for amateurs, but that is a great mistake, for, after all, plants well grown are the principal thing in gardening. Personally, I have known many amateurs who could, and can, beat the best professional at certain things they specialise in. After all, this is not to be wondered at, for in too many cases the professional gardener has too much to do to be able to specialise in anything. Not so the enthusiastic amateur, who can tell you, metaphorically speaking, how many leaves are on his plants. But to return to our Odontoglossum house. I am sorry the darker hybrids have not come out well in the photograph, but enough is seen to show what fine plants they are when well grown, either for the professional or amateur; indeed, I should say they are specially suitable for the amateur, being easily kept warm enough; 50° is quite sufficient when using fire-heat, and if a proper house is fitted up for them, watering once or twice a week, according to the weather, is ample. The finest hybrids can now be procured at quite moderate prices.

THE ODONTOGLOSSUM HOUSE AT CRAIGHEAD, BOTHWELL, N.B.

Messrs. Sander and Sons have made prodigious strides in the hybridising of these lovely Orchids. Back in the eighties, when I was serving my apprenticeship under the celebrated Mr. Thomas Hogg of Aikenhead, Cathcart, Glasgow, afterwards of Woodside, Paisley, Mr. Sander was a well-known Orchid and plant specialist. Odontoglossums which then cost £50 can now be had for a guinea, and lots of very fine ones at much less. The flowers are useful for cutting, the graceful sprays lending themselves admirably to artistic arrangement, especially where a choice table decoration has to be carried out and flowers of high quality are none too plentiful.

I must apologise for taking up so much of your space; my only excuse is that I do not trouble you often.

C. J. COLE.

The Gardens, Craighead, Bothwell, N.B.

WORKERS AMONG TH FLOWERS.

MR. ALEXANDER DEAN, V.M.H.

IN Mr. Dean, whose portrait we now publ with much pleasure, we have one of leading veterans of horticulture. was born on March 22, 1832, is, therefore, now well into his seventy-nin year. All the same, he is exceedin active and enjoys excellent health. The Victo Medal of Honour was awarded to him by Council of the Royal Horticultural Society in 19 and he has been for some twenty years a membe that society's fruit committee, and his services a judge at shows are in great request. Still furth he has been a constant contributor to the ho cultural Press for some forty years. The fi number of THE GARDEN contained some of notes, and readers of to-day will be familiar w his initials.

Very special work came to him in 1891, when, the invitation of Mr. John Wright, V.M.H., entered on the duties of Horticultural Instruc under that esteemed gentleman to the then Sur Technical Education Committee and now Surrey Education Committee. During the per of such work he has delivered fully 1,000 lectu on gardening to all sorts of audiences; has inspec and judged many thousands of cottage gard and allotments, and hundreds of flower shows the country; and there is scarcely a parish in whole county into which some one or other of th duties have not taken him. The judging du have been discharged chiefly in the summer a the lecturing in the winter. Recently Mr. D promoted the formation of the National Vegeta Society, of the committee of which he is chairm He has long maintained that in home-gro garden vegetables we have the healthiest and m easily produced of human food, and for that reason, apart from others, has done his utm to make vegetable production and consumpt far more than it now is a matter of national conc

Born in a great nursery at Southampton, like his once so well-known brothers, Willi and Richard, grew up in an atmosphere horticulture, and that taste thus early acqui has never died. In early life, among other periences at a time when work was slack were voyage to and from the West Indies and railw and London pantechnicon employment; but ev tually Mr. Dean got back into gardening again Bucks, Berks and Hants, finally, with his late brot Richard, embarking in the occupation of se growing at Shirley, Southampton, and later twenty years at Bedfont, Middlesex. In 1 Mr. Dean went to reside at Kingston-on-Than where he still lives.

His first initiation into wider gardening exp ence was at Westwood Park, Southampton, un a well-known Scotch gardener, John Coulthart 1849, who, like so many of his countrymen of t day, occupied a good post in the South of Engla Mr. Coulthart had, in accordance with the Sco formula, served an apprenticeship of seven ye in Lord Selkirk's gardens, St. Mary's Isle, Kirc bright. During his long life Mr. Dean has b on most intimate terms with many g deners, professional and amateur, and has al visited hundreds of good gardens. As evide of his popularity with the profession, we need c recall the remarkable gathering of gardeners fr all parts of the kingdom held in the Holb Restaurant in September, 1903, of the co mittee of which Mr. Owen Thomas, V.M. was chairman and Mr. Dean was secreta We may add as a matter of personal interest t

r. Dean was married at Southampton on Novem- r 4, 1854, and celebrated his golden wedding at ingston in 1904. Mrs. Dean is a year his senior, t still enjoys excellent health and is, for her great e, very active and energetic. We hope both ay be spared the other few years to enable em to celebrate their diamond wedding.

NOTES AND QUERIES FROM A SURREY GARDEN.

The Smaller Daffodils.

To my mind one of the most graceful of all the trumpet Daffodils, whose cost place them within the reach of the pockets of most of us, is Narcissus Johnstonii Queen f Spain. The trumpets cannot s a class be said to lend themelves so kindly to decorative purposes as their cousins the chalice nd poets, and are, therefore, erhaps hardly as popular in onsequence; but Queen of Spain hould surely be found in every arden where a Daffodil is grown. his delightful little gem has everyng in its favour; it is perfectly ardy, of good constitution, increases fairly rapidly, and its owers last well, both in the garden nd when cut. I purchased a ozen bulbs some ten years ago, nd they have been transplanted vice during that period. It is, believe, a natural hybrid, and as found by Mr. Peter Barr growg wild in the mountains of Spain. is still collected every year, nd the stock that is sold to the ublic is not cultivated at home ke the majority of Daffodils. oes it increase too slowly for our rowers? or is it so plentiful in pain that it is cheaper to collect an to grow it? But I suppose e time will come when such holesale exportation will defeat self. I have noticed this year r the first time that all the rlier flowers had the frilled edge the trumpet. I have heard this rm called King of Spain, although r reasons already stated it is not parately catalogued, and that ly the later flowers (quite fouren days separated the flowering riod) were the more graceful d beautiful form with the raight trumpet, which I regard as e type, the Queen of Spain proper. I am wondering if this is always so; or is it just e of those coincidences that occasionally occur baffle an enquiring mind? Perhaps someone o knows will tell me. Undoubtedly all flowers, t particularly bulbs, are much later than usual is season. It was true of the Snowdrops, by no ans the Fair Maids of February or the Lady of e Snows this year; and then her companions, e Chionodoxas, were equally behindhand; so o was Iris reticulata, often in full flower in early bruary, this year a whole month later. I picked esentable flowers in mid-April, a quite unusual te. Pallidus præcox, the early Daffodil, lost its im to its title; it was pale, as usual, but by no ans precocious, and with me it was one of the wers that ushered in the winds of March with beauty, nearly a month behind its usual season; in fact, of all my early Daffodils, only one, Minimus, the smallest of them all, came within a week of its normal time, and was in advance of all others in consequence. This common fault, if fault it be, must have had a common origin, and I am inclined to put it down to the sunless summer of last year, therefore late ripening of the bulbs.

The mention of that perfect little miniature, Minimus, makes me wonder why these lesser Daffodils are not more grown. One seldom finds them in gardens, never in any quantity, and yet they are all beautiful, quite inexpensive and open at a time when flowers are scarce. They can be planted with many a carpet plant, so take up little or no room; in fact, a double crop may be taken out of that piece of soil without detriment to either inhabitant. The smaller mossy Saxifrages, Veronica prostrata, the various Creeping Thymes, Herniaria, all lend themselves to this method; and a small clump of minimus just managing to get its flowers above the carpet, so that they are literally lying on velvet, is a delightful picture in February, when one has to "look for" flowers in the garden.

A few that flourish in the manner described, though not apparently increasing very much, judging from the number of flowers they give—though, I suppose, the old bulbs die or split up—are the following: Minimus, just mentioned; moschatus of Haworth, triandrus albus (Angel's Tears), and cyclamineus (the Cyclamen-like Daffodil).

H. E. Molyneux.

A GROUP OF TENDER SUCCULENTS OUTDOORS. (*See page* 266.)

THE FRUIT GARDEN.

FRUIT NOTES.

Watering Strawberries.—When the fruits commence to swell on the plants and until they are ready for harvesting, the roots draw literally immense supplies of water from the soil, and, in the event of a shortage occurring, the grower is bound to lose as well in the weight as in the quality of the crop. Therefore, dryness of the soil must be guarded against. Taking one season with another, it is almost safe to say that a heavy watering during the first fortnight of June always pays handsomely; but the wet time is sure to come when such a course cannot be in any respect desirable. Each grower must finally decide for himself, and he will be wise in cases of doubt to err on the side of giving water rather than the reverse. It will facilitate the operation, although it involves a little preliminary and after-trouble, to draw back the mulching, loosen the soil lightly with a fork if it has settled down, and then to give such a soaking as will assuredly penetrate 3 feet into the ground. As soon afterwards as the surface is dry enough, prick it over again and put the mulching material back in position. In those cases where a shortage of food is suspected, it will pay to follow the pure water with a second soaking of weak liquid manure.

Mulching Fruit. — Notwithstanding the fact that it is customary in many gardens to mulch fruit trees during the late autumn or winter, it is more than doubtful if this system is as generally advantageous as it is supposed to be. One recognises the conveniences of winter dressings, but there is an ever-present danger that the application will settle closely down and become sour and unsavoury, and at the same time prevent the free admission of air. When this occurs, the soil is actually made colder by the dressing, whereas in principle it should be made warmer. Now the ground has become warmed, a mulching of short manure cannot be otherwise than beneficial, for it will keep the surface cool and moist at the same time as it prevents the waste of food by evaporation. The nutrient matters contained in the material used quickly find their way down into the ground, and as the roots are especially active at this time of the year, they are very promptly imbibed, to the immediate benefit of the plant and the ultimate benefit of the grower. The surface should be pricked over before applying the mulching.

Pinching Cordon Gooseberries. — The undoubted advantage of cultivating Gooseberries in this form is steadily becoming more and more generally appreciated, and it is almost possible to see the time when cordons will be wholly relied upon in gardens for the production of the finest fruits. Not only are the plants extremely easy to manage when once the principle of procedure has been grasped, but they crop heavily; and in the possible, one ought to say probable, event of an

insect attack, it is much easier to take measures of cleansing than it is in the case of bushes, and the remedies applied will be proportionately more effectual. The object of this paragraph was not, however, to urge the planting of cordons, but to remind amateurs of the necessity of summer pinching. This work will certainly have to commence during the coming month, early or late according to the season and the garden, and its neglect will lead to trouble and disappointment. The rule should be to pinch out the point of the growths when they have made six leaves; subsequently other buds will break, and the shoots from these should be promptly nipped out at two leaves. This will admit light and air to the lower buds on the spurs as well as to the swelling fruits.

GUMMING IN STONE FRUITS.—Like many things which we do not want, gumming is always with us if, that it is to say, we grow stone fruits in our gardens. In old trees there is no certain cure; but if it shows in young trees, it is well worth the trouble to completely cut out the affected branch, and follow this up by feeding the tree rather more generously with nitrogenous foods. FRUIT-GROWER.

AN EXCELLENT LATE-KEEPING APPLE.

I SHOULD like to draw the attention of your readers to a variety of Apple rarely, if ever, referred to by writers of fruit notes, and not mentioned in many good lists. Its name is Flower of Kent, and it is not to be confounded with Beauty of Kent. At the time of writing (the last week in April) we have a few well-preserved fruits. They have had no special attention in order to keep them, and have wintered in a spare bedroom on wood, covered with a sheet of newspaper. The fruit is of moderate size, conical in shape and of pleasant acid flavour. It is a cooking Apple, but can be used for dessert late in the season. The colour is greyish green, with a few faint streaks of red. C. T.

THE FLOWER GARDEN.

A GROUP OF TENDER SUCCULENTS ON STONE STEPS.

I HAVE often wondered what is the magical charm of succulent plants. Children love them, but generally because they can be procured of such minute dimensions and growing in pots of a size fitted for a doll's house. Grown-up people often say they dislike them, but these are generally in the earlier stages of their gardening career, and have a special weakness for pale blue Delphiniums, Dorothy Perkins and other pink rambling Roses, have just started a Lavender hedge, and mean to have a moraine garden next season. If you can but induce one of them to accept a cutting of a Stapelia, Kleinia articulata or some Rhipsalis just as a curiosity, you may feel assured that in a few years this sturdy little juicy shoot will not only have been well cared for, but will have found some other companions of similar character, and a collection of succulent plants will be in process of formation. Many succulents will not only stand being placed out of doors during the summer months, but are greatly improved in colour and sturdiness of habit by such treatment. I find them very useful for filling some formal beds in which I grow Darwin Tulips. These Tulips are not sufficiently ripened for lifting until mid-June, which is rather late for bedding out to get a good effect by the time July arrives. Good-sized specimens of succulents are attractive at once, and many of the larger ones do well if plunged in their pots and the spaces filled in with smaller-growing forms grown on for the purpose in pans or boxes. But some of the choicer kinds I only stand out on low walls or on the stone steps shown in the illustration on page 265. Here, as may be seen, I like to gather the Cacti together in one little group, and Cereus, Opuntia, Echinopsis and Mammillaria of many species be grown outside thus from May to October, many will flower freely. In the foreground gr are placed plants with a certain similarity of foli character, the leaves being longer than their wi Among them are Agave americana variega A. Victoriæ reginæ, Aloe ferox, A. picta, and arborescens in the stone vase. A few pots of C web Houseleeks, such as Sempervivum ara noideum and doellianum, stand in front. T steps lead down to a pond, and I keep a pitc or two on the lowest step, and in dry weathe give the thirsty-looking plants a good water two or three times a week. I find it an excell plan to keep a few ordinary earthenware pitch in the garden near water. They look better t a water-can, and if stood on a flat stone, one see they are part of the garden furniture and left out by an untidy gardener; also many a pl gets a drink that would otherwise go thirsty.

Waltham Cross. E. A. BOWLES.

A NOBLE PLANT OF THE PYRAMIDAL SAXIFRAGE (SAXIFRAGA PYRAMIDALIS).

THE PYRAMIDAL SAXIFRAGE.

SAXIFRAGA COTYLEDON, or S. pyramidalis as it more commonly called, is one of the most sho as well as the most useful of the Saxifrages. N only is it a very valuable plant for a fairly d part of the rockery, but as a pot plant for hou or conservatory decoration it is unequalled, long, arching flower-stems associating well wi any class of plants. On the rockery it should planted where it will not get too much moistu during the winter, but at the same time it requi a fair amount of root-run and must not be shad to any great extent. Strong plants just bef blooming throw out numerous offsets, whi should be removed, and these, if pricked off eith in small beds out of doors or in boxes in the c frame, will root readily.

For pot culture I make a practice of putting a box or two of these offsets each spring; the are potted off into 3-inch pots some time duri the summer. Early the following spring they potted on into 4-inch or 4½-inch pots and ke growing during the summer, and the followi spring every plant throws a good flower-spi varying in length from 2 feet to 3 feet. T compost used is a moderately light one, to whi is added a fair amount of old mortar rubble. to the time they throw up their flower-spik they are never removed from the cold fram and the only attention they require is to give the plenty of air on all favourable occasions; in fa nine months during the twelve the lights mig be entirely removed, except during very w weather. The only thing the plant does not like over-watering, so when attempting to grow it ju keep it on the dry side. THOMAS STEVENSON.

Woburn Place Gardens, Addlestone.

THE BALEARIC SANDWORT.

ONE of the most fairy-like of all our alpine flowe is the Balearic Sandwort, Arenaria balearica, creeping plant of the greatest beauty and difficu to describe. Creeping close to the soil or the sto over which it grows, and only forming a cover, it is perfect carpet or veiling of little green leaves. Abo this, poised on thin little stalks, are many starry wh flowers. Some fail with it, but this is probab due to lack of consideration for its requiremen which a little study of the plant when at its be will soon show. For one thing, it is much happ in shade than in sun, as the writer has learn from watching its behaviour when planted at t same time on two low walls facing each oth one with a northern and the other with a southe exposure. The former plant went on and flourish apace, while the other made but little progress. likes nothing better than to be planted at the fo

THE TEMPLE SHOW.

ONE of the most interesting exhibitions of flowers that has ever been held was that of Tuesday last, and the interest in a sense was educational. The Orchids and other indoor flowers were, as usual, magnificent, but it was the outside exhibits that reflected the general love for outdoor gardening. Many of the groups shown there were beautiful in all ways—beautiful in taste and in the way they were displayed, trying to portray, as we think the exhibitors of these did, some good lessons in English gardening.

We must pay a tribute to the President of the Royal Horticultural Society—Sir Trevor Lawrence, Bart.—to the Council, and to those who have worked for many years to present this great horticultural lesson to the flower-loving people of the these isles. The President must have been gratified; and for the arrangements made for the show we have to thank the Council and the Secretary, the Rev. W. Wilks. We must also pay a tribute to those other helpers, Mr. S. T. Wright, the superintendent of the show, and Mr. Frank Reader. Unlike last year, the Temple Show on the first day was held in sunshine.

HARDY PLANTS AND ALPINES.

These, as in former years, were one of the leading features of the show, a large number of exhibitors putting in an appearance from widely diverse localities in England, Scotland and Wales.

In the open Messrs. Wallace and Co., Colchester, set up an excellent rock garden exhibit in natural stone, combining with it a water garden of much interest. In one of the large tents this firm also displayed a remarkable variety of bulbous and herbaceous plants, these comprising the choicest of Liliums, as dalmaticum, Hansonii, odorum, colchicum and others. Habranthus pratense was very fine, while Irises of the Korolkowii group with those of the Regelio-Cyclus section were admirably displayed.

Messrs. William Cutbush and Sons, Highgate, N., had a very fine example of an improvised rock and water garden, employing to advantage such excellent Primulas as bulleyana, cockburniana, pulverulenta and others, while Ramondias, Saxifragas, delightful colonies of Cypripediums and flowering shrubs were displayed with the greatest freedom.

Mr. H. C. Pulham, Elsenham, had a good rock garden exhibit arranged with taste and skill.

From far-off Geneva M. Correvon brought a delightful lot of the choicest alpines, but, owing to the long journey and packing, these were seriously impaired in beauty. Gentians, Achilleas, Androsaces, hardy Orchises, Ramondias, Phyteuma, Phlox Douglasii and others were, however, in good condition and much admired.

Bees, Limited, had many of their new Primulas from Western China, these including P. bulleyana, P. beesiana, P. Forrestii, P. littoniana and others, the whole appearing to advantage in pretty groups.

Mr. Clarence Elliott, Stevenage, had many pretty alpine plants, which included Oxalis enneaphylla, Lithospermum graminifolium, Morisia hypogæa, Iris cristata, Primula farinosa, Lithospermum Heavenly Blue and many other plants.

Messrs. Heath and Son, Cheltenham, were responsible for a natural rock garden, where Viola pedata, V. gracilis, Saxifragas in great variety, including S. tellmoides, S. primuloides and many others, were good.

Messrs. Artindale and Son, Sheffield, had Violas and Pansies freely bedded in the open.

Mr. G. Reuthe, Keston, Kent, had a charming display of alpine plants and rare Rhododendrons, Lewisia Cotyledon, Eritrichium nanum, Myosotidium nobile, Rhododendron dalhousieanum, R. Smithii aureum and R. cinnabarinum being noted among many kinds. Crinodendron hookerianum was also in excellent form.

Mr. M. Prichard, Christchurch, Hants, had many of the choicest alpines, Primula cockburniana, P. bulleyana, Tanakea radicans, Ramondias, Anemone sulphurea and others being remarked in an excellent arrangement. In another direction the more showy of the herbaceous plants were shown to advantage.

Messrs. J. Cheal and Sons, Crawley, had a rockwork exhibit in natural stone, employing alpine plants and flowering shrubs with considerable freedom.

The Misses K. and E. Hopkins, Mere Gardens, Shepperton-on-Thames, had a pretty rock garden exhibit naturally and tastefully disposed. Some of the good plants were Omphalodes Luciliæ, Gentiana acaulis alba, Trillium erythrocarpum, Gentiana verna, Tiarella cordifolia, Primulas in variety, alpine Phloxes and the like.

Mr. Howard Crane, Highgate, N., had a pretty arrangement of Violas and Violettas, displaying them with unusually good taste and skill.

Messrs. Backhouse and Son, York, had an ideal rock garden in miniature, arranging the choicest of alpines with much skill. Of the more prominent we noted Ramondias, Edraianthus serpyllifolia, hardy Cypripediums in variety, the rare and beautiful Primula Reedii, Saxifraga Aizoon rosea, a delightful lot of Orchis foliosa, Gentiana verna, G. bavarica and many more.

From the Craven Nurseries, Clapham, Lancaster, Mr. R. Farrer brought many delightful plants, chiefly of the choicer alpines, Primula farinosa, Daphne rupestris, Viola pedata, Anemone alpina in beautiful condition, Edraianthus serpyllifolia delightfully displayed, the rare Ranunculus Segeira and other choice and interesting subjects. This pretty miniature rock garden was indeed a feature of the show.

The King's Acre Nurseries, Hereford, had many showy plants, which included Primulas, Saxifragas, Campanulas, Phloxes and other plants in great variety.

Mr. B. Ladhams, Shirley, Southampton, had several new varieties of perpetual-flowering Pinks, also Aquilegia Stuartii Ladham's variety, Primula cockburniana, Meconopsis cambrica flore-pleno and other good plants in free masses.

The Guildford Hardy Plant Nursery (Mr. R. Upton) showed some excellent groups of plants—Rhodiola aurantiaca, Anthyllis montana with pink flowers, the pretty Polygonum sphærostachyum hybridum, Tiarella cordifolia superba, Saxifragas of many kinds and others of beauty or interest.

Mr. W. J. Godfrey, Exmouth, had a display of his hybrid Poppies in many distinct varieties.

Messrs. Whitelegg and Page, Chislehurst, Kent, had many good alpine plants, Saxifragas, Phloxes, Tulips and Sweet Peas being shown to advantage.

Messrs. Barr and Sons, Covent Garden, London, in addition to a splendid display of Tulips, Irises and Gladioli, arranged a pretty lot of alpine plants, such as Iris cristata, Anemone alpina, Rodgersia tabularis, Diphylla comosa and other choice plants. The Cushion, Korolkowii and Regelio-Cyclus Irises were all represented in the group.

Messrs. Storrie and Storrie, Glencarse, Perthshire, had a delightful lot of Auriculas and Polyanthuses, the plants being full of bloom.

Messrs. G. Mallet and Co., Cheddar, had a showy rock garden exhibit, in which Gerberas, Iris susiana, Lithospermums in variety, Wahlenbergias, Incarvillea grandiflora, Poppies and Tulips were seen to advantage.

Messrs. Reamsbottom and Co. had a showy lot of the St. Brigid Anemones.

Messrs. Sutton and Sons, Reading, had a splendid lot of Darwin Tulips, the flowers being admirable specimens of the largest size. Fawn, Thorbeck, Orange King, Zulu and Queen of Brilliants were among the finest, while the rich orange Bouton d'Or was superb in size and colouring.

Mr. R. C. Notcutt, Woodbridge, had a showy group of Trollius, Kalmias and Tree Pæonies, the latter being excellent.

Messrs. Jackman and Son, Woking, had choice alpines and showy herbaceous plants in variety.

Mr. H. Hemsley, Crawley, Sussex, had an excellent exhibit of rockwork in natural stone, furnishing the same with such as Saxifragas, Primulas, Viola pedata rosea, Trilliums, Daphne Cneorum (very rich in colour), Ramondias, Edraianthus serpyllifolia, Geranium sessiliflorum, Primula farinosa and many other good plants. Flowering shrubs were also freely displayed.

Mr. Amos Perry, Hardy Plant Farms, Enfield, had a sumptuous group of perennials and alpines, the group being particularly rich in Irises of the Korolkowii set and their hybrids, while such species as tenax were seen to be in excellent condition. The Tree Pæonies in this group were a great feast of colour beauty, while in another direction Mr. Perry had a glorious display of his new Lithospermum Heavenly Blue, which already has found many admirers.

The bank of alpines from Messrs. T. S. Ware, Limited, Feltham, included many excellent things, Phloxes Vivid and Sprite, Cypripedium acaule, Saxifraga Aizoon rosea, S. granulata flore-pleno and other good plants being included in an extensive and beautiful group.

Bakers', Wolverhampton, had a capital group of alpine and allied plants, and in conjunction with a rockery arrangement of much excellence displayed Tulips, Violas, Pansies and other plants in variety.

Messrs. Alex. Dickson and Sons, Limited, Belfast, had a magnificent lot of the Darwin Tulips, such as Prince of the Netherlands, La Tulipe Noir, Sultan and Scarlet Emperor among many others, making a glorious display of colour.

Messrs. Dobbie and Co., Rothesay and Edinburgh, had a very delightful lot of Pansies and Violas, arranging them in spray-like bunches with admirable effect.

Messrs. G. Bunyard and Co., Maidstone, displayed a very fine group, in which Tree Pæonies, Primula japonica in variety, Phlox canadensis Laphamii, Saxifraga pyramidalis, Primula cockburniana, P. sikkimensis, P. Unique, with Dianthus, Ourisia coccinea and Parrot and Darwin Tulips were well shown.

Messrs. Hogg and Robertson, Dublin, had a capital group of Ixias, Tulips, Irises and other things.

Sir George Faudel-Phillips, Balls Park, Hertford, had a splendid lot of Tulips, of which the

gesneriana and the darkest forms of the Darwin Tulips were well represented. Ravenwing, La Tulipe Noir, Dean Swift, Velvet King and Faust are all dark-flowered forms of varying shades of colour.

Messrs. Gilbert and Son; Bourne, Lincs, had a showy group of Anemone coronaria in variety.

Messrs. Felton and Sons, Hanover Square, brought a nice lot of hybrid Gerberas in pink, coral red, yellow and crimson.

Messrs. James Cocker and Son, Aberdeen, had a showy group of Trollius and Anemones alpina and sulphurea.

Bees, Limited, Liverpool, had a charming lot of their new Primulas, as littoniana, pulverulenta, bulleyana, Unique and others. Anemone demissa and Incarvillea grandiflora brevipes were also excellent.

Mr. J. E. Knight, Wolverhampton, brought a nice lot of Violas and other things.

Messrs. Seagrave and Co., Sheffield, had masses of Pansies and Violas.

Messrs. Lilley of Guernsey brought Irises, Ixias, early Gladioli, Iris Kæmpferi and other things.

Messrs. J. Forbes and Co., Limited, Hawick, arranged an assortment of Violas, Pentstemons and Delphiniums in excellent taste.

Messrs. Gunn and Son, Olton, near Birmingham, brought a massed bank of the flowers of Viola cornuta (pale blue), V. c. purpurea (dark) and V. c. alba (pure white).

Messrs. G. Gibson and Co., Leeming Bar, Bedale, displayed a group of Trollius, Verbascum and Oriental Poppies.

Mr. A. J. Harwood, Colchester, brought Irises, Primulas and other plants.

Messrs. William Artindale and Son, Sheffield, had a superb lot of Daphne Cneorum, Phlox Laphamii, Primula Sieboldii, P. Veitchii and others in variety, charmingly arranged.

In the open Messrs. James Veitch and Sons, Limited, had a large and imposing group, which included Meconopsis punicea, M. integrifolia, Anchusa italica Dropmore variety, Saxifraga Camposii, Eremuri in variety, Primula pulverulenta, P. Unique, P. cockburniana and other beautiful plants.

Messrs. R. and G. Cuthbert, Southgate, N., displayed a very fine lot of Darwin and other Tulips in the open, the group making a fine display. Negro, Margaret, Mrs. Farncombe Sanders and Bacchus (purple) were among the more imposing of these handsome flowers.

ROSES.

Hobbies, Limited, Dereham, Norfolk, had a beautiful group of Roses in their usual position, these being composed for the greater part of pillar, rambler and weeping standard specimens, many of which were very fine indeed. Dorothy Perkins, Hiawatha, American Pillar, Tausendschön, Apple Blossom (a pretty little Polyantha of blush colour), a new yellow China Rose named Chin-Chin (this appearing very robust), White Dorothy Perkins, Minnehaha and many others were in perfect condition.

Mr. Charles Turner, Slough, had a charming exhibit of Roses in pots, all well grown and beautifully represented. Hiawatha, Lady Gay and Dorothy Perkins were seen in lovely pyramids, and among exhibition sorts were Hugh Dickson, Queen of Spain, Mme. Jules Gravereaux and many others.

Messrs. William Paul and Son, Waltham Cross, had a very large and representative group of Roses, in which were beautiful climbing sorts in great variety. Conspicuous among others were Coquina, Excelsa, Lady Gay, Delight, Lyon Rambler, Elsie, Kathleen and Milky Way. Orleans Rose was also noteworthy. Hybrid Teas, Hybrid Perpetuals and Tea-scented Roses were set up in good form and charming variety.

Messrs. H. Cannell and Sons, Eynsford, Kent, set up a large table group of climbing Roses, in which freshness and good quality were conspicuous. Foremost was American Pillar, with which this firm scored so well last season. This is a very beautiful Rose, and is destined to be in most gardens where beauty is desired. Baby Rambler, Dorothy Perkins, White Baby Rambler, Minnehaha and Hiawatha were also noticeable.

Messrs. William Cutbush and Son, Highgate, N., and Barnet, Herts, had a nice show of Roses in their large group of miscellaneous plants. Hiawatha, Mrs. F. W. Flight and Crimson Rambler were noteworthy.

Messrs. Paul and Son, Cheshunt, Herts, made a beautiful display with their group of Roses in one corner of the big tent. Ramblers were the feature. Excelsa (very brilliant pink), Hiawatha, Lady Godiva, White Dorothy and Dorothy Perkins were specially good. A groundwork of the better exhibition Roses in several types was a pleasing finish to this attractive exhibit.

Mr. Frank Cant, Colchester, had a pleasing table group of rambler and exhibition Roses, several boxes of the latter being remarkably good for so early in the season. White Killarney, Lady Alice Stanley, William Shean, The Lyon Rose and Queen of Spain were just a few of the many fine sorts in this exhibit.

Mr. George Mount of Canterbury made another of his handsome displays, chiefly of cut Roses, in which high quality was, as usual, most noticeable. Groups of Ulrich Brunner, Frau Karl Druschki, Mrs. John Laing (superb), Lady Hillingdon, Killarney, Dean Hole and several large boxes of exhibition Roses were a great attraction. This was a very fine feature of the show.

Messrs. B. R. Cant and Sons, Colchester, set up a large and pretty table group of Rambler Roses in beautiful variety. Blush Rambler, Lady Gay, Hiawatha, Lyon Rambler, Minnehaha, Lady Godiva and Tausendschön were some of the more conspicuous among many good things.

Mr. G. Prince, Longworth, Berks, set up a neat group of Roses in charming variety. Ramblers, decorative and exhibition varieties were staged in pleasing fashion and made an attractive exhibit.

Messrs. Alex. Dickson and Sons, Limited, Newtownards, Ireland, were showing some of their famous "Hawlmark" Roses, the blooms in every case being of excellent quality. All were new varieties, Alex. Hill Gray (yellow), Nita Weldon (pale blush), Walter Speed, F. R. Patzer (blush and apricot) and Duchess of Westminster (rose pink) being some of the most noticeable.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, N., showed an interesting group on the lawn outside No. 2 Tent. There were quite a number of pretty standard ramblers, all freely flowered and most interesting. Tausendschön, Mrs. Taft and a number of others were pleasingly disposed. The arrangement of this group was excellent.

MISCELLANEOUS STOVE AND GREENHOUSE PLANTS.

Messrs. Sutton and Sons, Reading, set up one of the exhibits for which this firm is famous, occupying the end of the large tent and comprising five large and handsome groups of Schizanthuses, herbaceous Calceolarias and Cinerarias, between which were interspersed Gloxinias, Begonias and Nemesia Suttoni. This was a remarkable display and was much admired.

Messrs. James Veitch and Sons, Limited, Chelsea, staged one of their choice exhibits of stove and greenhouse plants remarkable for their fine foliage, in which were interspersed Orchids, Anthuriums, Disa Luna and Medinilla magnifica in the way flowering plants for effective purposes. Specia good foliage plants were the Alocacias, Caladiu Crotons, Dracænas and a host of other beauti sorts, all combining to make an exhibit w worthy of the high reputation of this firm.

Another exhibit of a somewhat similar charact but hardly so comprehensive, came from Mr. L. Russell, Richmond. The plants were well gro and for the season nicely coloured, and were be tifully fresh and clean. The disposition of t plants left very little to be desired.

A beautiful group of pyramid Azaleas came fro Mr. Charles Turner, Slough. The plants were free flowered and the colours bright and pleasin Eggebrechti, Madeline, Apollo, Roi de Holland and Mme. van Houtte were noteworthy spec mens.

The King's Acre Nurseries, Limited, Hereford had a pretty little group of Heliotropes. Th plants were bearing large trusses of beautifull coloured flowers, which were, of course, very swee scented. Carmelé is good, and there were sever others quite conspicuous.

Messrs. R. and G. Cuthbert, Southgate, N., repre sented the hardy Azaleas in wondrous variety an in a gorgeous array of colours. Floradora, Hug Koster and Anthony Koster were the better of th mollis and sinensis crosses; and of other beautifu types and varieties Single Ghent Pucella, moll Consul Ceresole and rustica flore-pleno Mecen all combined to make a fine display.

Amaryllis, with useful foliage plants interspersed made a glorious exhibit as grouped by Messrs William Bull and Sons, King's Road, Chelsea, S.W Large flowers in wonderfully rich and varie colours on well-grown plants were much admired Comet, King George V., Invincible, Queen Mar and Beryl were noteworthy examples of qualit and high culture.

Messrs. John Waterer and Sons, Limited Bagshot, Surrey, excelled in their display of Rhodo dendrons. It was a grand bank of finely grow plants. Charles Waterer, Lady Eleanor Cathcar Pink Pearl, Cynthia and Lady Hillingdon were a good.

From Messrs. James Veitch and Sons, Limited Chelsea, came a group of trees and shrubs, in whic hardy Azaleas, Wistarias, Rhododendrons, Clemati Philadelphus, Olearia and other choice subject were set up in great profusion and in excelle quality.

A handsome group of Caladiums was displaye by Messrs. John Peed and Son, West Norwood, S.E who staged very fine specimens of several of th better varieties in fine form and condition. Joh Peed, Mme. J. R. Box, candidum, Marquis Camden and Triomphe de Comte were all very fin

Messrs. George Jackman and Son, Woking, exh bited a very attractive group of Clematis in variou forms and in beautiful variety. The plants carrie large flowers and were well grown and beaut fully fresh. Fairy Queen, Lady C. Neville, Nell Moser and Lord Neville were fine specimens. Th group was fringed with Ferns and backed wit Palms and Silver Acers.

Messrs. J. Carter and Co., High Holborn, stage a beautiful group of Gloxinias, Begonias, Strept carpi and Cinerarias at the entrance to the lo tent. The colours in all these were remarkab good, and the plants of all showed great vigou The Gloxinias in particular were extra fine an free, and were undoubtedly the result of high-cla cultivation.

The Hon. Vicary Gibbs, Aldenham House (ga dener, Mr. E. Beckett), had a delightful display hybrid Streptocarpi, a flower that Mr. Beckett h done a great deal with in the way of improvemen The plants shown were remarkably good and fre the large blossoms of varied and rich colou

manifesting the high and intelligent culture that had been accorded them.

The Thatcham Fruit and Flower Farm, near Newbury, put up a small group of Carnations, these being of good quality and embracing several well-known varieties.

Messrs. J. Garaway and Co., Bristol, exhibited some remarkably good plants of hybrid Schizanthus, the colour and vigour of these appealing strongly to visitors. The plants were certainly the result of very good cultivation.

Vivian Phillipps, Esq., Crofton Court, Orpington (gardener, Mr. T. Hobbs), had a nice group of herbaceous Calceolarias, the plants all being well covered with large flowers, these comprising many beautiful and rich colours.

Messrs. W. and J. Brown, Stamford and Peterborough, had a miscellaneous group of greenhouse plants in variety, these including such as Salvias, pot Roses, Pelargoniums, Marguerite Perfection, Verbenas and the curious Lotus peliorynchus.

The new double-flowered scarlet Zonal Pelargonium James T. Hamilton was well shown in quantity by Messrs. W. H. Rogers and Son, Limited, Southampton. This is a very brilliant variety as seen under the tent.

Mr. W. J. Godfrey, Exmouth, Devon, displayed a fine group of show Pelargoniums, for which he is famed. These were all well-grown examples, and every plant was full of blossom, the many rich and varied colours eliciting much admiration from visitors.

The Stocks in pots shown by Messrs. Toogood and Sons, Southampton, were a well-grown lot, and embraced several beautiful colour shades not usually found in these plants.

The pot Roses, Lilies and Carnations shown by Mr. W. H. Page, Hampton, formed a group of rare beauty, the arrangement being such as to show them off to the best advantage. The Carnations in particular were very fine indeed, all the leading sorts being included.

Messrs. William Bull and Sons, Chelsea, exhibited a small group of Hydrangeas, these being large and embracing pleasing shades of blue and pink.

Herbaceous Calceolarias were splendidly shown by Wickham Noakes, Esq., Selsdon Park, Croydon, the plants being large, well flowered and good in every respect.

The new Spiræas Peach Blossom and Queen Alexandra were shown in good condition by Wt. van Waveren and Kruyff, Holland, the pink flowers forming a pleasing group.

Mr. H. N. Ellison, West Bromwich, had a delightful little group of Ferns, the greenery of which proved most refreshing. Adiantums, Gymnogrammes, Nephrolepis, Davallias and many others were shown in great variety and in splendid condition. Mr. Ellison was also showing some fine plants of Dracænas for M. Vercanteren, for whom he is agent in this country.

R. J. Fry, Esq., Abbots Leigh, Bristol (gardener, Mr. G. Parkes), had several excellent zonal Pelargonium flowers on show, the trusses of these being large and the blossoms well coloured.

Mr. H. Hemsley, Crawley, put up a small group of Dracænas, Kalanchoes and various other plants, Dracæna Victoria being particularly pleasing.

The very extensive group in Tent No. 1 shown by Messrs. J. Veitch and Sons, Limited, comprised Verberas, Gloxinias, standard Fuchsias, Abutilons, Calceolaria Buttercup, Exacum macranthum, a fine flowering specimen of Aristolochia Sturtevantii, fine yellow Richardia elliotiana, Cinerarias of various types and colours, including the pale yellow flavescens and Fairy Queen, a most dainty type and very free flowering.

Messrs. J. Peed and Sons, West Norwood, were maintaining their high reputation with a fine collection of Gloxinias and Streptocarpi, the colours and size of the flowers, as well as the vigour of the plants, leaving nothing to be desired.

Messrs. H. Cannell and Sons, Swanley, Kent, had a large table group of Verbenas, Fuchsia triphylla Perle, Calceolaria Clibranii, Spiræas in variety, Pelargoniums, Phyllocacti and Pilocereus senilis, the whole making a very fine display.

Messrs. J. Veitch and Sons, Limited, Chelsea, staged beautiful herbaceous Calceolarias in a grand table group, all giving evidence of good culture.

Bertolonias from Mr. L. R. Russell, Richmond, made an interesting display, the marking of the leaves being very fine. They were set up attractively in moss.

Foliage plants from Messrs. H. B. May, Edmonton, are always a feature at this show, and the present exhibit seemed quite equal to its predecessors. Large specimens were charmingly disposed with other smaller, though not less interesting, plants. Adiantum versaillense, Nephrolepis Marshallii, Lomaria discolor, Davallia solida superba, and Todea superba were a mere tithe of the good things in this group. Clematis and Zonal Geraniums also came from this firm, and these latter represented many well-known double and single sorts.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, staged an exhibit embracing Roses and New Holland plants in charming variety. The Bottle-Brush Tree was much in evidence, as were Hydrangeas, Boronias, Carnations, Gerbera and many other interesting plants.

A collection of Amaryllis came from Messrs. Robert Ker and Sons, Liverpool, who staged a really beautiful series of well-grown plants of superb quality flowers. Emperor, Fairy Queen, Boreas and The Chancellor were splendid examples.

Spiræas in variety made a pretty group as shown by H. J. Jones's Nurseries, Limited, Lewisham, S.E. The plants were well grown and certainly attractive.

Herbaceous Calceolarias, Gloxinias, Cinerarias and Schizanthuses from Messrs. Webb and Sons, Stourbridge, made a grand bank in the second large tent, and were quite a feature. The first-mentioned subject was superb, the colours being varied and striking and the individual flowers very large. Much credit is due to this firm for its fine display.

Sarracenias from Mr. A. J. A. Bruce, Chorlton-cum-Hardy, were represented by an interesting group not so large as usual. The plants were in fine form and were much admired by visitors to the show.

Messrs. Thomas Rochford and Sons, Turnford Hall Nurseries, Broxbourne, had a pretty collection of Ferns, in which excellent examples of Cyrtomium, Polypodium, Sporodocarpum cristatum and Nephrolepis in variety were all well shown and much appreciated by the public.

Refreshing indeed was the large and comprehensive group of choice exotic Ferns exhibited by Messrs. J. Hill and Son, Lower Edmonton. Gleichenia Speluncæ, Polypodium plesissorum, Nephrolepis Scholzeli and N. elegantissima, besides many other good things, were the admiration of everybody.

Messrs. William Cutbush and Sons had in the fine group in the large tent a really charming assortment of Carnations, set up in groups of one variety in each. The undulating arrangement of the group was much admired. Malmaison Blush, Princess of Wales, F. Galsworthy, King Arthur and Maggie Hodgson were among the more noteworthy of the many sorts set up.

Mr. G. Lange, Hampton, put up a group of very fine flowers of the perpetual section, these being large and very rich in colour. Winsor, Melody, Mrs. H. Burnett, White Perfection and Rose Pink Enchantress were all very beautiful indeed.

The Carnations shown by Mr. S. Mortimer, Rowledge, Farnham, were of very good quality indeed, and comprised all the latest varieties, Winsor, Victory, Britannia and Winona being particularly attractive. In addition, Mr. Mortimer had some excellent sprays of the double white Stock All The Year Round.

SWEET PEAS.

Groups of Sweet Peas were shown by Messrs. Dobbie and Co., Edinburgh and Marks Tey; Mr. W. E. Alsen, Waterlooville, Hants; H. J. Jones, Limited, Lewisham; E. W. King and Co., Coggeshall; and Robert Sydenham, Limited, Birmingham. These exhibits will be fully dealt with in a special article next week.

BEGONIAS.

A pretty group of Begonia Marie Bouchet was exhibited by the Hon. Mrs. Glyn, Albany Hall, Herts. This is a very attractive form of these charming plants, and the plants exhibited showed excellent cultural skill.

Messrs. Thos. S. Ware ('02), Limited, Feltham, exhibited tuberous-rooted Begonias magnificently. The flowers were large and of superb quality, and the cream of these plants were to be seen here. It was a really noble display. Mrs. F. C. Stoop, King Manuel, Hon. Mrs. Ronald Greville and The Queen were a few of the more glorious examples in this display.

A charming group also came from Messrs. Blackmore and Langdon, Bath. Finish and quality were good throughout, and the plants were neatly disposed. Rose Queen, Cecilia, Mme. Tetrazzini and Grace Audrey were grand examples.

Mr. A. Ll. Gwillim, New Eltham, staged a pretty group of these plants, though less freely flowered than those in the others. So near London this grower did well to show such good specimens. The colours were striking and the quality quite satisfactory.

MISCELLANEOUS OUTDOOR GROUPS.

A pretty outdoor group of hardy Ferns, Coleuses, Pansies, Geraniums, Lobelias, Fuchsias, Verbenas and many other similar plants made a most interesting exhibit. This came from Messrs. H. B. May, Edmonton. The subjects of this group proved a source of much pleasure to visitors.

Clipped trees and Acers in variety were shown by Messrs. Piper and Son, Bayswater, and the former were seen in many curious forms and devices. Lamps, a parrot in a hoop, tables, Teddy Bear, dogs, &c., in Yew and Box were certainly interesting and quaint.

Hardy trees and shrubs, both flowering and foliage, were excellently shown by Mr. R. C. Notcutt, Woodbridge. The flowering shrubs, &c., were most attractive, such subjects as Viburnum macrocephalum, Azalea Hugo Koster, Rhododendron Pink Pearl, Spiræa confusa, Cytisus kewensis, C. andreanus, several very good Lilacs, &c., being included.

The name of Messrs. W. Cutbush and Son, Highgate and Barnet, is so closely associated with clipped trees that we were quite prepared for the fine show made by this firm. Chairs, spirals, crowns, ships, dogs, baskets, peacocks, tables, swans and numerous other quaint and curious topiary work in Yew and Box were represented in excellent form and condition, well sustaining the high position attained by this well-known firm.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, had a beautiful group of the Bottle-Brush

Tree (Metrosideros floribunda), the plants being remarkably well flowered and attractively arranged.

Messrs. J. Cheal and Sons, Crawley, had a nicely arranged group of flowering and ornamental foliaged shrubs, a stone pathway running between the group. Rhododendrons, Viburnums, Japanese Maples, Cytisus and similar kinds were freely shown, and all combined to form a group of much interest.

The hardy Rhododendrons shown by Messrs. J. Waterer and Sons, Bagshot, Surrey, made a beautiful picture indeed, the bright, clear colours contrasting well with the dark green foliage. It is almost needless to say that all the best varieties known were included. In addition there were some fine Japanese Maples and Viburnums included in the group.

Mr. L. R. Russell, Richmond, was showing a large group of shrubs, Clematises and other kinds. The Irises were specially interesting, and Japanese Maples and Cytisus were also very good.

Messrs. Barr and Sons, Covent Garden, contributed an excellent group of dwarf Japanese trees, which included Junipers, Larches, Thuja obtusa, Pinus of sorts, Oaks, Maples, Acers, Cherries and others, the plants varying from 30 years to 205 years old, the latter being represented by the Japanese Larch, Larix leptolepis.

Messrs. Paul and Son, The Old Nurseries, Cheshunt, arranged a showy lot of flowering and other shrubs, such as Rhododendrons, Lilacs in standard and bush forms, Catalpa speciosa, pulverulenta, Ledum thymifolia, Daphniphyllum glaucescens aurea marginatum, Sorbus cuspidata and other good things.

The Japanese garden formed by Messrs. Carter and Co., Holborn, was one of the chief features of the show, and arranged as it was with admirable taste and skill demanded and merited much praise. Bridges and streamlets, Japanese lanterns, pagodas and wells, with the usual accompaniment of dwarfed trees, Lilies, Hydrangeas and other things, all played their part in the forming of a very beautiful and realistic whole. It was indeed a delightful exhibit, well conceived and carried out and fascinating to a degree.

FRUIT.

Messrs. T. Rivers and Son, Sawbridgeworth, had a very beautiful exhibit of fruit trees in pots, Peaches, Nectarines and Cherries being displayed bearing heavy crops of ripe and beautifully coloured fruits. Nectarines Cardinal and Seedling No. 101 (a medium-sized variety with rich red fruits), Peaches Peregrine and Kestrel (a new variety with good-sized fruits), and Cherries Elton and Early Rivers' deservedly came in for a great deal of attention. A basket of gathered fruits of Peach Peregrine showed this excellent variety to perfection.

Messrs. Laxton Brothers, Bedford, had a superb display of Strawberries, gathered fruits and fruiting plants in pots being freely displayed. The fruits were not, perhaps, quite so large as we have seen Messrs. Laxton sometimes show, but all were splendidly finished and of very high quality. The new variety, George Monro, was largely in evidence, other notable sorts being Bedford Champion and Laxton's Connoisseur, a very rich-flavoured Strawberry of beautiful bright colour and quite a good acquisition.

VEGETABLES.

Mr. A. J. Harwood, St. Peter's Nursery, Colchester, exhibited some very fine examples of giant Asparagus, the heads being large and of excellent colour.

The Thatcham Fruit and Flower Farm, near Newbury, staged a good collection of vegetables, this comprising Peas, Beans, Carrots, Lettuces, Cucumbers, Marrows, Tomatoes, Potatoes, Radishes and Turnips. Generally speaking, the material used was of good quality. Peas The Pilot, Reading Wonder and World's Record were very attractive, and Carrot Nantaise was good. The Tomatoes were of poor shape and scarcely fit for exhibition.

The group of vegetables shown by the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), was the finest we have ever seen at this season, and no praise can be too high for it. As an example of what our best English gardeners are capable of doing this group was superb, and should do much to dispel the erroneous notions about so-called French gardening. Here was a group some 15 yards long, and fully representative of a well-stocked kitchen garden. The arrangement, too, was in Mr. Beckett's well-known artistic style, and when we say the whole display surpassed any of his previous efforts at the Temple Show, readers will have some idea of its value. Peas, Beans (Broad and French), Tomatoes, Cucumbers, Marrows, Potatoes, Radishes in great variety, Lettuces, Sorrel, Cauliflowers, Celery, Rhubarb, Turnips, Beet, Asparagus, Spinach and Cabbages were all shown in perfection. Lack of space forbids mention of varieties, but these included all the leading ones, and the quality in each case was first-class.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, staged an excellent group of Cucumbers and Tomatoes. Among the former was a new variety named King George V. This is a long, dark green Cucumber of very promising appearance. Tomato Improved Sunrise was in beautiful form, and the type itself was most attractive.

*** *Owing to the demand on our space we are compelled to hold the report of the Orchids and Carnations over until next week. Descriptions of new plants will also be given then.*

OFFICIAL LIST OF AWARDS.

Gold Medals.—Leopold de Rothschild, Esq., Gunnersbury Park, Acton (gardener, Mr G Reynolds), for Vanda teres; the Hon. Vicary Gibbs, Elstree (gardener, Mr. Beckett), for vegetables; F. Menteith Ogilvie, Esq., Oxford, for Orchids: Messrs. Sutton and Sons Reading, for flowering plants and for Tulips; Messrs. J. Veitch and Sons, Chelsea, for flowering plants and for foliage plants; Messrs. H. B. May and Sons, Edmonton, for exotic Ferns; Messrs. William Paul, Waltham Cross, for Roses; Messrs T. Rivers and Sons, Sawbridgeworth, for fruit in pots: Messrs Sander and Sons, St. Albans, for Orchids; Messrs. R. Wallace and Co Colchester, for rock garden and herbaceous plants; Messrs. G. Paul, Cheshunt, for Roses; and Messrs. Charlesworth and Co., Hayward's Heath, for Orchids.

Sherwood Cup.—Sir J. Colman, Bart., Reigate, for Orchids.

Cups.—Messrs. W. Cutbush, Highgate, for cut bushes, alpines, &c.; Messrs. Barr and Sons, Surbiton, for Tulips and hardy plants; Messrs. J. Waterer Bagshot, for Rhododendrons; Messrs. J. Carter, Holborn, for Japanese garden and flowering plants; Mr L. R. Russell, Richmond, for trees and foliage; Mr. C. Turner, Slough, for Roses and Azaleas; Mr. H. Burnett, Guernsey, for Carnations; Sir G. Faudel-Phillips, G.C.I.E., for Tulips: Messrs. Hobbies, Dereham, for Roses; Messrs. G. Mount and Son, Canterbury, for Roses; Messrs. W. Fromow and Sons, Chiswick, for Maples: Messrs. Hill and Son, Edmonton, for Ferns; Messrs. Mansell and Hatcher, Rawdon, for Orchids; His Grace the Duke of Marlborough, for Orchids; J. T. Clifton, Esq., Lytham, for Orchids; Mr. A. Perry, Enfield, for herbaceous plants: Messrs. S. Low and Co., Enfield, for Orchids, Roses, &c.; Messrs. Cuthbert, Southgate, for Azaleas: Messrs. Peed and Son, Streatham, for Caladiums, &c.; Messrs. B. R. Cant, Colchester, for Roses; Messrs. J. Cypher, Cheltenham, for Orchids: Messrs. Backhouse, York, for alpines; Mr. A. T. Dutton, Iver, for Carnations, &c.; Messrs. Veitch and Sons, Chelsea, for trees and shrubs: and Mr. M. Prichard, Christchurch, for alpines.

Silver-gilt Flora Medals.—Messrs. Alex. Dickson and Sons, Newtownards, for Roses and Tulips; Mr. G. Reuthe, Keston, Kent, for Tulips, rock and herbaceous plants; Messrs. A. Artindale and Sons, Sheffield, for Violas and herbaceous plants; Mr. R. C. Notcutt, Woodbridge, for herbaceous plants and group in open air; Messrs. Blackmore and Langdon, Bath, for Begonias; Messrs. F. Cant and Co., Colchester, for Roses; Mr. G. Lange, Hampton, for Carnations; and Messrs. Ker and Sons, Liverpool, for Amaryllis.

Silver-gilt Banksian Medals.—Messrs. G. Jackman and Sons, Woking, for Clematis and herbaceous plants; Mr. W. H. Page, Hampton, for Carnations, Lilies and [illegible]; Messrs. T. S. Ware, Limited, Feltham, for Begonias [illegible] alpines; Messrs. J. Cheal and Sons, Crawley, for rock [illegible] alpine garden and group in open air; Mr. A. Be[illegible] Manchester, for Sarracenias; Mr. C. Engelmann, Sa[illegible] Walden, for Carnations: Mr. W. H. Lancashire, Guern[illegible] for Tree Carnations: and Mr. E. V. Low, Haywa[illegible] Heath, for Orchids.

Silver Flora Medals.—Messrs. Bakers, Wolverhamp[illegible] for Tulips, hardy plants, rockery, &c.; Messrs. R. [illegible] Bath, Limited, Wisbech, for Carnations, Tulips and [illegible] baceous plants; Mr. W. A. Clark, York, for Primul[illegible] Messrs. King and Co., Coggeshall, for Carnations [illegible] Sweet Peas; Messrs. Toogood and Sons, Southamp[illegible] for winter-flowering Stocks; Mr. W. E. Alsen, Wate[illegible] ville, Hants, for Sweet Peas; Mr. H. Crane, Highg[illegible] for Violas and Violettas; Mr. F. Lilley, Guernsey, [illegible] Gladioli and bulbous Iris; Messrs. George Bunyard [illegible] Co., Maidstone, for Tulips, herbaceous plants and alpine[illegible] Messrs. Hogg and Robertson, Dublin, for Tulips, Ixi[illegible] Iris, &c.; Messrs. J. Cocker and Son, Aberdeen, [illegible] Anemone sulphurea and Trollius; the Misses Hopki[illegible] Shepperton-on-Thames, for rock garden; Messrs. Rochfo[illegible] and Sons, Limited, Broxbourne, for new Ferns; Mr. [illegible] Hemsley, Crawley, for rock garden, foliage plants a[illegible] flowers; E. J. Johnstone, Esq., Groombridge, for Ma[illegible] maison Carnations; A. D. Hall, Esq., F.R.S., Harpende[illegible] for Tulips; Messrs. H. B. May and Son, Edmonton, f[illegible] Ferns in the open; Messrs. Cannell and Sons, Swanle[illegible] for Begonias, Calceolarias, &c.; Mr. W. J. Godfre[illegible] Exmouth, for Poppies, Pelargoniums, Solanum, &c.; Th[illegible] Craven Nursery, Clapham, Lancs, for alpines and ro[illegible] garden; Messrs. Hughes-Jones and Peers, Newbury, f[illegible] Carnations, salads, &c.; Mr B. Bell, Guernsey, for Carna[illegible] tions; Mr. C. Elliott, Stevenage, for rock garden an[illegible] alpine plants; Messrs. Gunn and Sons, Olton, for hard[illegible] herbaceous plants and Japanese garden; Mr. A. J. Ha[illegible] wood, Colchester, for Asparagus and hardy herbaceou[illegible] plants; Robert Sydenham, Limited, Birmingham, f[illegible] Sweet Peas, &c.; Mr. C. F. Waters, Balcombe, Susse[illegible] for Carnations; Messrs. Bees, Limited, Liverpool, f[illegible] Primulas and alpines; Messrs. Bull and Son, Chelsea, f[illegible] Orchids, foliage plants, &c.; Messrs. Dobbie and Co[illegible] Edinburgh, for Pansies, Violas, and Sweet Peas; Messr[illegible] B. Ladhams, Limited, Southampton, for hardy herbaceou[illegible] plants; and Messrs. Piper and Son, Bayswater, for traine[illegible] trees and Japanese Maples.

Silver Knightian Medals.—Mr. S. Mortimer, Farnha[illegible] for Cucumbers, Tomatoes and Carnations; Messrs. Laxto[illegible] Brothers, Bedford, for Strawberries; and Mr. R. Stevenso[illegible] Cambridge, for Asparagus.

Silver Banksian Medals.—Messrs. Storrie and Storri[illegible] Glencarse, for Auriculas and Polyanthus; R. Ashwort[illegible] Esq., Manchester, for Orchids; Messrs. Pulham and So[illegible] Oxford Street, for rock gardens; Messrs. Heath and So[illegible] Cheltenham, for rock garden; Messrs. G. Mallett and Co[illegible] Cheddar, for alpines, herbaceous plants, &c.; Messr[illegible] Carter Page and Co., London Wall, for Dahlias, annua[illegible] and Violas; J. Forbes, Hawick, Limited, for herbaceou[illegible] plants; Messrs. G. Gibson and Co., Bedale, for herbaceou[illegible] plants and alpines; The Guildford Hardy Plant Nurser[illegible] Guildford, for herbaceous plants and alpines; Messr[illegible] Kelway and Sons, Langport, for Tree Pæonies and Pyr[illegible] thrums; Messrs. Seagrave and Co., Sheffield, for Vio[illegible] and Pansies; Messrs. A. Young and Co., Elgin, f[illegible] Anemones; and H. Correvon, Esq., Geneve, for alpine[illegible]

Bronze Flora Medals.—Messrs. W. and J. Brown, Pete[illegible] borough, for herbaceous plants; The King's Acre Nurser[illegible] Hereford, for alpines and herbaceous plants; Messrs. [illegible] Webb and Sons, Stourbridge, for flowering plants; Messrs. Young and Co., Cheltenham, for Carnations; Th[illegible] Hon. Mrs. M. Glyn, Ware, for Begonias; Mr. H. [illegible] Jones, Lewisham, for flowering plants; and Messr[illegible] Whitelegg and Page, Chislehurst, for Tulips, alpines an[illegible] Sweet Peas.

ORCHID COMMITTEE AWARDS FOR NEW PLANTS.

First-class Certificates.—Cattleya Mendelii Prince[illegible] Victoria, from Messrs. Mansell and Hatcher, Limite[illegible] Rawdon, Yorkshire; Cattleya lawrenceana Mary Regi[illegible] and Sobralia Charlesworthii, from Messrs. Charlesworth and Co., Hayward's Heath, Sussex; Odontoglossu[illegible] Memoria King Edward VII. and Odontoglossum Memor[illegible] Baron Schroder, from Messrs. Sander and Sons, St. Albans; Odontioda King George V. and Odontoglossum eximiu[illegible] Empress of India, from M. Ch. Vuylsteke, Loochrist[illegible] Gand, Belgique.

Awards of Merit.—Cattleya Mossiæ Magali Sander, fro[illegible] Messrs. Sander and Sons, St. Albans; Lælio-Cattley[illegible] Luminosa magnifica, from His Grace the Duke of Mar[illegible] borough, Blenheim House, Woodstock; Odontioda Roy[illegible] Gem and Odontoglossum Promerens, from M. C[illegible] Vuylsteke; Cattleya Mendelii Queen Maud, from Messr[illegible] Charlesworth and Co., Hayward's Heath, Sussex; Læli[illegible] Cattleya Aphrodite Mark Hambourg, from Mr. T. Clifto[illegible] Lytham; and Odontoglossum eximium Emperor, fro[illegible] Messrs. Sander and Sons, Bruges, Belgique.

Botanical Certificate.—Bifrenaria bicornaria and Lycast[illegible] peruviana, from Messrs. Sander and Sons.

FLORAL COMMITTEE AWARDS FOR NEW PLANTS.

Awards of Merit.—Rhus typhina laciniata, fro[illegible] Mr. R. C. Notcutt, Woodbridge; Rose Excelsa, fro[illegible] Messrs. G. Paul, Cheshunt: Rose Duchess of Westminste[illegible] from Messrs. A. Dickson, Newtownards; Begonia Ro[illegible] Queen, from Messrs. Blackmore and Langdon, Bath; Rhododendron Alice, from Messrs. J. Waterer, Bagshot; Sarracenia Willmottæ, from Mr. A. J. Bruce, Manchester; Cytisus Dallimorei, from the Royal Gardens, Kew; Marguerite Mrs. F. Sander, from Messrs. Sander, St. Albans; Azalea mollis × sinensis Floradora, from Messrs. Cutbush, Southgate; and Rhododendron Princess Juliana, fro[illegible] Messrs. Waterer, Bagshot.

a damp freestone wall, up which it will creep r some distance. A retaining wall against a ank of earth is quite to its liking, and on such it ill generally flourish admirably. But it does ot appear to enjoy granite or hard, non-porous ones, and there are some hard, smooth bricks which it cannot cling well. In a fernery it also es well, creeping over the stones and soil, especi-ly if the latter is stony. In the rock garden it equently flourishes when growing over the stones the shadier parts, or over the rough stone steps hich have been formed on some rockeries, and any of these it looks very beautiful with its arry flowers. This little plant is hardy in the rdinary sense of the term, but I have seen it jured by excessive wet, much as likes moisture; an excessive ainfall, followed by irregular osts, will often injure it in inter. S. ARNOTT.

A WATER GARDEN.

HE accompanying illustration, om a photograph taken in Messrs. Vallace's nursery in Colchester. eeds no description. It simply nows the beauty of Nymphæas nd other water-loving plants; and s their cultivation was dealt with our last issue, further reference them is unnecessary.

NYMPHÆAS AND OTHER WATER PLANTS.

TREES & SHRUBS

THE CRAB APPLES.

DURING early May the Crab Apple trees are among the showiest in the garden, for several of them bear brighter - coloured owers than the garden Apples. everal possess such beauty that ey are planted on an extensive ale, either in large groups or in venues, and in each case win e's admiration, while, where ace will not admit of lavish anting, isolated lawn specimens dot plants in shrubberies are t to be despised. Visitors to e Royal Gardens, Kew, cannot il to notice the large group of abs, composed principally of rus floribunda and the variety rosanguinea, which is to be seen a slight mound near the Water ly House. In this group each tree given ample space for develop-ent without crowding its neigh-ur. Any suspicion of formality avoided by an intermixture of evergreen conifer-s trees. Evergreens are decidedly an advantage such a group, for, in addition to their winter fect, the green foliage forms a background for e flowers of the Pyrus in spring. The group der consideration contains twenty-five Crab es, many of which are practically mature ecimens measuring 12 feet to 15 feet in height d 20 feet to 30 feet in diameter. Every branch wreathed with flowers. Pyrus floribunda is e of the best known of the ornamental Crabs. is a Japanese tree and frequently met with as large bush 12 feet to 15 feet high and as much rough, though it has been recorded double the ze. The flowers of the type are about three-arters of an inch across, with a white ground flushed with pink. There is a variety, however, which is even more showy than the type, for the flowers are a deep pink or reddish shade. This is the one previously referred to as atrosanguinea.

Differing from P. floribunda by its looser growth and larger flowers is P. halleana. It is doubtful whether it is a form of some other species or a hybrid; but, whichever it is, its richly coloured flowers suggest that it should be more grown. The American Crab Apple (P. coronaria) has been brought to notice of late years by its double-flowered variety, which is remarkable for its large, semi-double pinkish flowers. The type is rarely met with, but is very ornamental, the flowers being at least 1½ inches across and flushed with pink. The fruits are very distinct, being bright green in colour when ripe in September. P. baccata, the Siberian Crab, is always effective. This, of course, grows to the size of our largest Apple trees, with a rounded but wide-spreading head. The flowers are borne very freely, but are wanting in the bright colouring of some other kinds, for they are only slightly flushed with pink. In addition to its beautiful flowers, it has very ornamental fruits, being, in fact, one of the most useful of all Crabs for this purpose. The fruits frequently hang on the trees all the winter.

The common Crab (P. Malus) is found wild in many parts of the country, sometimes in little more than bush form, and, again, as a tree of considerable dimensions. Two remarkably fine examples I saw recently on the estate of Mr. P. Clutterbuck, Goldingtons, Rickmansworth. These had branched trunks of good proportions, while the heads, which were fairly equally developed, were about 45 feet in diameter. For the garden a number of varieties may be obtained which have been given names on account of some special characteristic of growth, flowers or fruit. Thus, astracanica has rich red fruits, and from this the Red Astrachan Apple of gardens has developed. Coccinea is also conspicuous for its red fruits, flore albo pleno for its double white flowers, pendula its weeping branches, and rosea its rose-coloured flowers. Then in this set are to be found the many ornamental fruited Crabs which have been developed by culti vation, such as John Downie and Hyslop Crab, which are as beautiful in autumn as they are in spring. Closely allied to P. Malus, and, in fact, most likely a well-marked variety of the species, is P. niedzwetzkiana, a Caucasian plant distinguished by flowers of a peculiar red shade and a similar reddish tinge permeating the roots, branches, leaves and fruits. This has been raised true from seeds, but many of the seedlings did not differ from P. Malus. P. prunifolia is not unlike the Siberian Crab, and there is a conspicuous difference in the fruits. There are many varieties, but they are distinguished by the fruits rather than by the flowers. Japan gives us an ornamental species in P. Ringo, which has light-coloured flowers slightly flushed with rose. P. Scheideckeri is considered of hybrid origin, its parents being given as P. prunifolia × P. floribunda. From its general appearance, however, one would be inclined to believe that P. spectabilis had something to do with its origin. It is extremely free-blooming, the flowers being large and semi-double. As a rule, the wood is so thickly beset with buds that it is difficult to select really satisfactory scions for grafting. P. sikkimensis is not usually met with in gardens, though it is ornamental and curious by reason of the trunk and main branches being thickly beset with short spurry growths which are almost spiny in character. P. spectabilis is a species of large growth, and mature trees closely resemble an ordinary Apple tree in character. The type bears large flowers 1½ inches or so across, which are succeeded by yellowish fruits. The species is, however, more often represented by its double-flowered variety than by the type; it is undoubtedly an extremely useful tree, the flowers being large and heavily flushed with rose. There are other varieties also, of which Kaido is recognised by its rich-coloured flowers, Riversii by red flowers, and those of flore albo are white.

In addition to the above, others are of decided merit. The selection given will, however, be sufficient for all ordinary purposes. The inclusion of a few of these species and their varieties in orchards of ordinary garden Apples that are planted partly for the effect of their flowers would be an advantage through the wider range of colour and difference in growth. W. DALLIMORE.

GARDENING FOR BEGINNERS.

HOW TO GROW LETTUCES AND THE BEST KINDS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—It is now time to prepare beds for planting out Vegetable Marrows and ridge Cucumbers that have been raised under glass, as there is no advantage in keeping these indoors when June is here. Many growers used to go to a very great deal of trouble in making up the beds for these plants, and frequently they were grown on what was practically a manure-heap. There is no gainsaying the fact that they appreciate good, deeply worked soil, and in preparing the beds a heavy dressing of partially decayed manure should be given. On all but the very lightest soils the beds should be raised a few inches, but a slight depression may be made in the bed for each plant. This will facilitate watering during dry weather. Marrows of the trailing section should be planted from 3 feet to 4 feet apart, bush varieties going 1 foot closer. Cucumbers may go in rows 3 feet apart and 18 inches asunder in the rows. It is a good plan to cover each plant for a few nights subsequent to planting out with an inverted flower-pot.

1.—A BOX OF SEEDLING LETTUCE PLANTS SOWN MUCH TOO THICKLY. WITH SEEDLINGS OF THIS DESCRIPTION IT IS ALMOST IMPOSSIBLE TO OBTAIN GOOD PLANTS.

Flower Garden.—Where the plants have been well hardened off, Dahlias may be planted out in their flowering quarters the end of this week. The holes should have been prepared in readiness as advised a few weeks ago, and before putting in the plants a stout stake should be firmly placed in position; then there will be no danger of damaging the roots of the young plants. The present is a good time to sow seeds of Canterbury Bells to provide plants for flowering next year. They may be sown thinly in drills 1 foot apart outdoors and covered with about a quarter of an inch of very fine soil. If the weather is at all dry, water the drills before sowing, and subsequently give water through a fine-rosed can frequently until germination has taken place and the seedlings are fairly established. In addition to the single-flowered varieties, there is the cup and saucer type, Campanula Medium calycanthema. It is a good plan, where a lot of plants are required, to purchase seed in separate colours and keep the plants separate; then at planting-time several of one colour can be grouped together and a beautiful effect produced.

Rose Garden.—So far as I have been able to observe, Roses are rather late this year; but some of the earliest varieties in warm situations are now developing their buds rapidly. Where extra large and full flowers are required, disbudding should be done. The flowers of many varieties are produced in clusters, and except with the Ramblers and others where masses are required, it is a good plan to leave only the best bud of the cluster, cutting away the others with a sharp pair of scissors. It must not, however, be taken to mean that I advocate the general adoption of this plan. Many who grow Roses desire a quantity of blooms, and are willing to put up with those of second-class quality rather than have a few good ones only. In many instances the young shoots were very severely damaged by cold winds and frosts early in the month, and the effect of this is now visible in the blackened flower-buds. Green fly is attacking these weak shoots in its accustomed vigorous manner, and steps must be taken to eradicate it. Where the flower-buds are small, an insecticide may be safely used; but in more advanced examples dust the shoots with Tobacco powder, and after a couple of days syringe vigorously with clean water.

Fruit Garden.—Loganberries are flowering very freely this year, and there is every prospect of a good crop being secured. While admiring the prospective crop, however, we must be thinking of the rods which will fruit another year. These are now growing rapidly from the base, and should be loosely supported in some way. Any very weak ones that it is obvious will not be needed may be cut clean out at once, as this will concentrate the energies of the plant on those retained. If the soil is at all dry, as it may be where the plants are growing against walls or fences, it should be given a good soaking with clear water, and if a dose of weak liquid manure can be given the next evening, it will be of considerable benefit. The same remarks apply to the newer and excellent Lowberry, a black-fruited replica of the Loganberry, and which was introduced by Messrs. Low and Co. of Enfield.

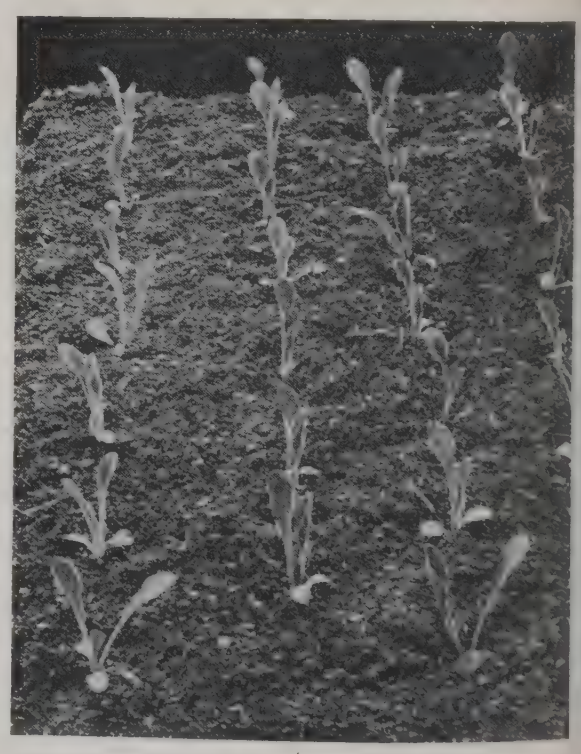
A. A.

CULTURE OF THE LETTUCE.

OF the several subjects that are more frequently in request for salads, there is none more popular than the Lettuce. When well grown there is nothing to equal this subject as a salading in the warmer months of the year, during which period well-blanched specimens are placed upon the table in a fresh, crisp condition. The Lettuce is a native plant of India and Central Asia, and ancient history tells of its use as a salad vegetable 500 B.C. It was introduced into this country so long ago as 1562, and a few years after its introduction varieties to the number of eight were mentioned by Gerard in his "Herbal." In more recent years, owing to the efforts of the leading seed-growers and nurserymen, quite a large number of ve excellent varieties have been raised.

The two types of the Lettuce are well know to every reader of THE GARDEN, no matter ho limited his knowledge of gardening matters m be. There is the Cabbage or dwarf kind and t Cos or tall-growing section. Both have th adherents, some preferring one and some t other. They are both represented by brown a white varieties. The peculiarity of the Cabba Lettuce is its soft, silky leaves, and of the Cos ty its solid build and welcome crisp leaves. T former type does better on poor, light soils, and t latter just the opposite; as a matter of fact, t Cos Lettuce delights in rich soil of heavier textu yielding fine large specimens in such condition For both types the ground should always worked well, so that there shall be a free root-ru Light, sandy soils may be improved by digging a good dressing of cow or pig manure, placing th one spit deep. In the case of soils of a heav retentive character, dig in well-rotted hors manure, road grit and the refuse of the bur rubbish-heap. All these ingredients tend to lighte the character of heavy soils.

For early crops a warm, sheltered, sunny bord is a great advantage, and a position as nearly ali to this as possible should be given preference the spring and early summer. Sheltered positio should also be selected for winter supplies, and t soil in this case should be slightly raised abo the ordinary level of the garden. By followi a system of sowing seeds of this subject, it shou be possible to have Lettuces during many mont of the year. For early summer supplies see should be sown in gentle heat in January or Fe ruary, and later for succession. A late Marc April and May sowing outdoors will provide supply for midsummer and subsequent week It is a good plan to sow seeds for winter use August and September, and a month later make a sowing in a cold frame to provide a bat of plants for planting in their permanent quarte in the succeeding spring.



2.—METHOD OF PRICKING OFF SEEDLING LETTUCES IN BEDS. ARRANGE THEM IN ROWS ALTERNATELY, OBSERVING A DISTANCE OF A FEW INCHES BETWEEN THE PLANTS.

.—SEEDLINGS READY FOR TRANSFERRING TO THEIR PERMANENT QUARTERS. LIFT EACH PLANT WITH A GARDEN TROWEL, DISTURBING THE ROOTS AS LITTLE AS POSSIBLE.

In Fig. 1 a box of seedling Lettuces, in which oth the Cos and Cabbage types are represented, shown. The former, however, largely predomiate. This box of plants serves to show what a rge amount of seed is often wasted, as it is next impossible to do justice to this subject when ie young plants are so overcrowded. They ivariably become drawn and weakly, and unless andled with the greatest care, the results are ldom satisfactory. This is an apt illustration f what not to do. Beginners should make a rule sow their Lettuce seeds thinly, and after the edlings are well through the soil, to gradually ure them to less warm conditions, so that they ay be hardened off gradually and become sturdy their growth.

What to do with the seedling plants is our next nsideration, and this must be determined promptly the best interests of the plants are to be served. he young plants may be dibbled in in a cold ame or in a box of suitable dimensions, or, what simpler during the summer months, in a sheltered border outdoors. A small area for this urpose is quite sufficient in most gardens as ettuces for succession, and these in small batches the better rule to observe. Sturdy young seedngs, such as are depicted in Fig. 2, should be dibbled a few inches apart in rows, and the young plants sposed so that they alternate in the respective ws in proper order. Note the sturdy, carefully ardened off young seedlings and their arrangeent. Under normal conditions an interval of a w weeks will see these same young plants ready r a shift to their final quarters.

In Fig. 3 a small batch of young Cabbage Lettuce ants that were pricked out or dibbled in, as lvised above, are shown. Here it will be obrved the plants have filled out in most satisfacry fashion, and they are now in ideal condition r transplanting to where they are to mature. do justice to the plants, they should each be ted with a garden trowel, so as to disturb the roots little as possible. These plants are frequently eated in somewhat ruthless fashion, in consequence of which treatment they fail to grow away ckly and seldom develop into fine plants.

Fig. 4 shows the method of planting a double row of Lettuces across a small garden. This is a sufficient supply for most people whose demands are somewhat restricted, and by planting the sturdy little plants alternately, every inch of space is turned to good account. Cos Lettuce should be planted in rows 1 foot asunder, and a similar space should be observed between the plants in the rows. Cabbage Lettuce should also be planted in rows; but in their case 10 inches between the rows and 9 inches between the plants in the rows answers very well. When blanching is done artificially, Cos Lettuce should be tied about ten days before they are needed for home supplies, and when the leaves are dry. Fortunately, most of the Cos Lettuces of recent introduction are close and compact in their habit of growth, and this obviates the necessity for tying observed with loose-growing varieties. Give plenty of water in dry weather, use the hoe frequently between the plants, and dust the quarters with lime or soot occasionally to prevent the depredations of slugs and snails.

Good varieties of the Cos Lettuce are Giant White, Superb White and Improved Black-seeded Brown Cos; and of the Cabbage Lettuce, All the Year Round, Holborn Standard, Favourite, Perfect Gem and Hardy Green Hammersmith are capital sorts. D. B. Crane.

THE TOWN GARDEN.

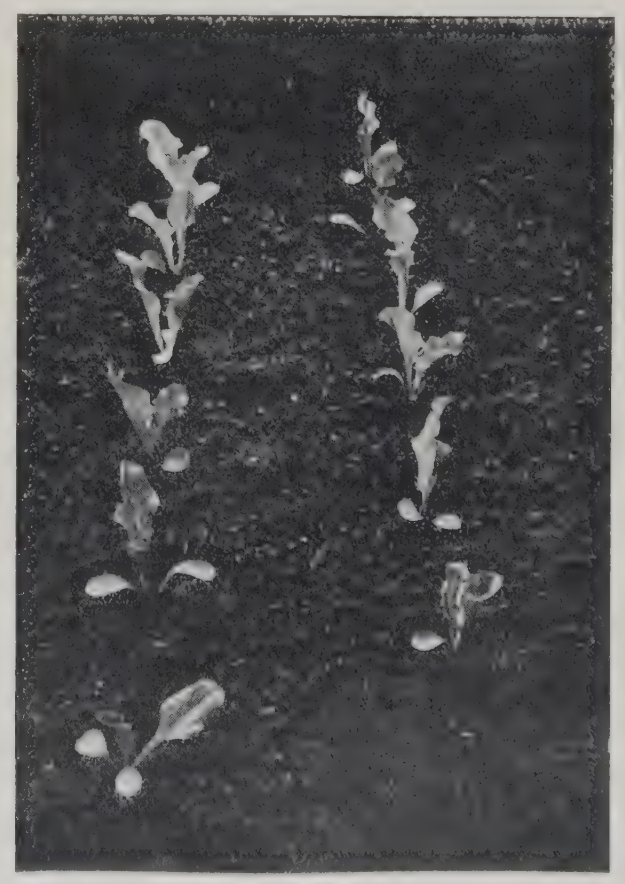
Tuberous-rooted Begonias.—The earliest plants of these, and indeed all save those late-planted tubers that are only now tardily breaking into growth, should be transferred from the greenhouse to the cold frame preparatory to being planted in the open beds or borders. If, however, the artificial heating of the greenhouse has been dispensed with, the plants will be quite safe therein, and may for a time longer be left. Not infrequently, however, the amateur delights to see the shelves of his greenhouse as fully occupied as the stage, and this being so, and with other plants occupying the roof rafters, a darkened condition will be set up that will prove prejudicial to good growth. Hence, with the knowledge that such conditions obtain, it is recommended that the plants be given a place where the fullest sunlight and abundant air will ensure those sturdy conditions of growth which are so essential to success.

An Ideal Bedding Plant.—I regard this section of the Begonia as ideal from the bedding out point of view, as with judicious treatment vigorous and short-jointed plants may be built up that will flower long and well. There should, however, be no overcrowding of the plants, and any that are thickly set together in boxes should be given more room without delay. Bedding out the plants temporarily in the cold frame is a capita plan, and if light soil is used and a watering given there will be no noticeable check to growth. Avoid any undue haste in putting the plants into their flowering quarters, remembering always that, being of a tender and sensitive nature, an approach to frost will probably mean the loss of a week's growth. If one may fix a date, it would be from June 7 to June 15 for bedding them out, the latter date well suited to Midland districts.

Other Bedding Plants.—In former days the bedding out then in vogue was usually finished by May 20, though the more extended use of tender plants will not permit of working to any such rule of thumb to-day. Such plants as Calceolarias, the well-known Echeveria, so freely employed as an edging plant, the dwarf Lobelia, particularly where the plants have been hardily grown, and the hardiest of the Zonal or bedding Pelargoniums Geraniums so-called—may be put out forthwith. Coleus, Alternanthera and tender plants generally will be better for the present in the company of the Begonia already referred to.

A Beautiful Pansy.—The beauty of this Pansy (Viola cornuta atropurpurea), its complete hardiness and profuse flowering compel one to single it out just now for special praise, the plants now, as indeed since the opening of the present month, being quite a sheet of colour. The precise tone of colour may be very near to royal purple, and hundreds of the prettily formed and quite elegant blossoms are delightful in the extreme. Messrs. Gunn and Sons, Olton, near Birmingham, have done much to popularise this hardy border subject by bringing basketfuls of it to the London exhibitions. In common with other Violas, the older plants of this spread out into free masses and provide much the earlier display, the yearlings, or, say, the autumn or spring planted ones, coming later in bloom. The plant is essentially one to be used with a free hand, and where broad belts of colour are desired, or a complete carpeter from which other plants spring, I do not know its equal for beauty, hardiness and continuous flowering.

Trailing Plants for Window-boxes.—Not always, perhaps, is there sufficient thought given to those plants best suited to succeed in window-boxes; hence a reference to some of them may be of service. The Creeping Jenny is, perhaps, the best known of the permanent town-dwellers, and does not greatly concern itself whether it be given a place in the back-yard or the more exalted position in the front of the house. The plant appears almost indifferent to soot and smoke, and grows, though it may not always flower. Of flowering plants Campanula isophylla alba leads the way, the mauve-coloured C. i. Mayii constituting a good companion. Ivy-leaved Pelargoniums are notable subjects, the variously coloured Nasturtiums providing a unique display from the sowing of a few seeds. Both dwarf and climbings forms of these may be used for window boxes, the dwarf ones making a good display in the box itself and the trailing varieties over the front. E. H. Jenkins.



4.—PLANTING SEEDLING LETTUCES IN A DOUBLE ROW ACROSS THE GARDEN. NOTE HOW THEY ARE ARRANGED ALTERNATELY SO THAT FULL ADVANTAGE MAY BE TAKEN OF THE SPACE.

THE KITCHEN GARDEN.

BROCCOLI IN SPRING.

THIS season the Broccolis have proved of great value, and as some of the best sorts—I mean the hardy, robust varieties—can be planted after first-early Potatoes in the Southern parts of the country, there are few vegetables more welcome in the spring. I am aware in very severe winters the Broccoli crop suffers badly, but at times this crop is much influenced by being grown too coarse or in a crowded garden. I have frequently seen large, gross plants in rich garden soil destroyed, whereas the same variety in an open field was very little injured, the plants naturally being much dwarfer and hardier. I do not intend to dwell at length on cultural details, but I place much importance upon the size and state of the seedlings when planted, and the state of the soil also. I would also urge the importance of ample space between the rows and plants. Often the seed is sown too early, and the ground the plants are to occupy is not ready for planting, and the seedlings are left too long in the seed-bed, the result being weakened plants. To get strong plants it is a good plan to prick out the seedlings in rows 6 inches apart, or even more if room is available.

We have no lack of splendid varieties, and though the Sprouting Broccolis do not find favour in all gardens, there are few vegetables more useful, and they are most reliable. There are two kinds, the white and purple. These stand severe frosts uninjured and give a lot of sprouts for cutting in spring. I have alluded to the soil, and for a reliable spring supply I do not think recently manured land the best for this plant; I mean land heavily manured just in advance of planting. I admit deep culture is most excellent, but a great deal depends upon the time of sowing and the planting out. I prefer early May and June sowings for a late spring supply. Sow thinly and in an open position, choosing the earlier date for the Northern part of the country. I am aware many good cultivators sow earlier than the time advised, but I prefer to sow so that the plants get no check whatever. As regards the planting, I have always found it advisable to plant on several quarters, as often when the plants are all in one position they may get more injury from frosts, whereas in diverse positions they do not suffer so badly. For instance, I have seen a late quarter of Model and Late Queen on a cold north border quite unharmed, whereas on a southern one there were very few plants left.

For an early spring supply Sutton's Superb Early White is an excellent variety, and though not large for use in March, it has few equals, and is equally valuable for an April supply. Sutton's Perfection is also a splendid sort for a succession; this is probably the best midseason Broccoli grown, having a compact growth, close, pure white heads and is extremely hardy. This is also, when sown late, a splendid variety for May supplies. Another very fine later Broccoli is Satisfaction. The heads are not coarse, and the quality is more like a Cauliflower in texture, being a pure white, and, like the well-known Perfection, the heads are well protected by the leaves. A very fine May Broccoli is Veitch's Chelsea Favourite, a hardy late variety with the heads well protected by the foliage. I have referred to Model, which is one of the best and most reliable late Broccolis grown. It is dwarf, hardy and excellent in every way; and the same remarks are applicable to Sutton's Late Queen, a variety introduced as long ago as 1873, but still one of the best, being very hardy, dwarf and compact, and most reliable for use in May and early June. Another variety that rarely fails is June Monarch, a favourite in the North. The heads are well protected. There are others worth including, but the foregoing are well known for the season named and for their reliableness.

FRENCH CLIMBING BEANS FOR SUMMER AND AUTUMN USE.

THESE Beans give a great yield and can be grown with less trouble than the Scarlet Runner, and, as the pods are of delicious flavour, they are of great value for gardens limited in size. There are not a large number of varieties, but they are all good in their class, some earlier and more dwarf than others; and where a continued supply of the best vegetables is required, I would make three sowings, as then splendid pods may be had from June till November.

I have referred to the varieties as not being numerous. The best for an early supply is Sutton's Earliest of All. This sown for an early supply will yield some weeks in advance of the ordinary Runner, and sown under glass it may be had much earlier. The pods of this variety are very fleshy, and if gathered in a young state are stringless, so that they are ready for use. This is much appreciated in the kitchen. Pods of this and others of this type should be gathered when from 4 inches to 5 inches in length, and, if liked, they may be used even smaller. It may be considered that gathering the crop so young is somewhat wasteful; but this is not the case, as the plant produces so freely that the crop left is benefited. Another remarkable variety of this section is Princess of Wales, also an early variety and one that should find great favour; indeed, if only one variety of the Climbing French Bean can be grown, Princess of Wales should have the preference on account of its handsome pods, which are long, straight and remarkably tender. What makes the plant more useful to the amateur is that the pods of this variety grow so rapidly, and the plant continues bearing till cut down by frost.

A fine midseason variety is Tender and True. This was one of the earliest introductions of this type, and is a fine summer variety. It has all the good qualities of the Dwarf, and I have frequently grown it without stakes by stopping the growths when from 12 inches to 18 inches long. Grown thus the plant yields enormously. Probably the most distinct of the type is Sutton's Epicure, as the pods of this variety do not get tough so soon as the Dwarf kinds. The yield is enormous, and the pods are very thick and fleshy; doubtless on this account they remain longer fit for use. At the same time, my remarks above concerning the value of these varieties for use in a whole state is equally applicable, as the pods of Epicure are produced in large clusters and may be gathered quite young. I have taken a supply almost daily, as the plant, unlike the ordinary Runner, produces from the bottom to the top of the vines, and the pods when cooked are most delicate and make a most desirable second-course vegetable.

The culture of these Beans is so simple that a few words on this point will suffice. As I have previously stated, I prefer to make three sowings—an early one, a late May or June sowing (this is also the most important one, and here Epicure or Princess of Wales is specially suitable), and a later sowing in July for late autumn supplies. This will in an open season give pods to the end of October. The plant likes a rich root-run for the summer and autumn crop. I have found it a good plan to make a shallow trench or deep drill, place some manure in the bottom, cover this with soil and sow the seed. Grow from 4 feet to 6 feet apart between the rows, but a much less space will suffice if the plants are topped. G. WYTHES

THE EDITOR'S TABLE.

WE invite our readers to send anything of special beauty interest for our table, as this means many rare interesting plants become m widely known. We hope, that a short cultural note will accompany flower, so as to make a notice of it more instruct to those who may wish to grow it. We welco anything from the garden, whether fruit, t shrub, Orchid, or hardy flower, and they should addressed to the Editor, 20, Tavistock Stre Covent Garden, London, W.C.

CINERARIAS FROM NEW BARNET.

Mr. W. C. Freeman, gardener to E. Hill, Es Sydenham, New Barnet, Herts, sends a spray of beautiful sky blue Cineraria. Mr. Freeman write "I am enclosing a spray of one of a batch Cinerarias which have been a great success wi me this spring. The enclosed flowers were fo merly a most lovely sky blue, but have now fad through age. The habit of the plants is one great to be desired by gardeners, and my method culture may be of interest. The seed was sown the open ground under a sheltered north wall t last week in May, the seedlings being pricked into a box immediately they were large enough handle, the soil used being an open mixture loam, leaf-soil and sand. After a week in a co frame with the light slightly tilted, the plants we again exposed to the open air. The same meth was used when potting into 3-inch pots. At t final shift the soil used was rather heavier, a larg proportion of loam being used, together with slight addition of Clay's Fertilizer. The plan were again placed out of doors, and remain there until there was a real danger of frost, wh they were removed to a shelf in a vinery. N stimulants were given until the plants show flower, when a little Clay's Fertilizer was sprinkl on the surface of the soil about every four watering. The result of this method of cultivati was a fine batch of plants, many of the heads bei 18 inches to 20 inches through, dwarf and w hardened. Personally, I think this open-a treatment far better than the cold frame, which advocated by so many of our leading gardeners."

POINSETTIAS IN MAY.

I am herewith sending for your table some brac of Poinsettia, which, I think, may fairly be co sidered as a novelty for the time of year. I ha now about a dozen of them. The plants we put with others in a warm fernery last Decembe but only produced small, poor-coloured bract When the others, which flowered at the usual tim were removed, these were left, as they were st showing a little colour. Then, as the days bega to lengthen, they began to show a brighter colou until they reached their present stage. They ha not been favoured in any way, and take the daily syringing with the Ferns, a treatment whic seems to suit them. I can only attribute the failing at the proper time to the cold, sunles season of last autumn, as I have never seen an do so before. I may say the fernery is kept at winter temperature of from 55° to 60°, with corresponding rise as the growth of the Ferns begin —H. REYNOLDS, *Scratby Hall, Great Yarmouth.*

[Excellent bracts; brilliant in colour.—ED.]

ROSE MARECHAL NIEL FROM WARWICKSHIRE.

A correspondent signing himself "J. F. H. sends us from Butlers Marston, Kineton, Warwick shire, a very fine flower of this charming Rose. H

"I am sending a Maréchal Niel Rose for pinion. I should like to add a few words e treatment it has had. The tree is growing an-to greenhouse, 21 feet by 12 feet, and is outside, being brought in just above the er pipes; it was planted about ten years t has quite covered the roof, and I have cut as ten dozen blooms in one day, and often nd four dozen, the first bloom this year ut in March. I have never forced it beyond frost away, as there are other plants in the same house. After the blooms are let it grow ahead as much as it likes, till eptember, then thin out all weak growths, them right back. I do not like to spur owths if it can be avoided, preferring young Air is always given freely if the outside ature is above 40°. It has very rarely ringed and never fumigated. Our soil is a stiff clay on the blue lias stone, which, of course, has been worked fairly deep and enriched with ordinary farmyard manure. Top-dressing is resorted to at times."

Polyanthuses from Mullingar.

Mrs. L. H. Smyth, Gaybrook, Mullingar, sends flowers of a mauve Polyanthus, which have a rich yellow eye. The original plants will probably remain Polyanthuses, but seedlings would, doubtless, many of them, be Primroses, and of varied colours. Mrs. Smyth writes: "I enclose for your table some blossoms of mauve Polyanthus. I found some plants of this Polyanthus among my double mauve Primroses last year, and kept them separate. They have again come quite true. Some of the blossoms on each plant are on a single stem, like Primroses, the others (Polyanthus) like those sent. All are single, with bright yellow eye. Can you tell me if this is likely to remain a true form of Polyanthus or will it revert to the double mauve Primrose?"

Iris tingitana from South Devon.

Mr. F. W. Rich, The Gardens, Elfordleigh, Plympton, South Devon, sends us flowers of the beautiful Iris tingitana and other plants, which are most welcome. Mr. Rich writes: "I am sending for your table a few flowers of Iris tingitana and a spray of Myosotidium nobile (the New Zealand Forget-me-not). I think you will agree with me that these are two lovely subjects to grow, and well worth the extra care and attention needed to make them flower. I am also sending flower-sprays of Sutherlandia frutescens, which grows and flowers in the open air in the south-western district; but, unfortunately, it cannot be termed hardy, even in our favoured climate."

THE NEW PRIMULA UNIQUE. (*Flowers natural size.*)

PRIMULA UNIQUE

The remarkable hybrid bearing the above name has been raised by Messrs. James Veitch and Sons, Limited, Chelsea, from P. pulverulenta and P. cockburniana, and embodies the chief characteristics of both parents, notably, however, the vigour and apparently perennial character of the former with not a little of the colour of the latter, while if to these are presently added the great stature and free-flowering attributes of P. pulverulenta, the hybrid will be unique indeed. The exact colour of the flowers is difficult to describe, the brilliant flame or vermilion scarlet of P. cockburniana, by mingling its influence with that of the other species named, having been modified into a Nasturtium red, which renders it most distinct. The plant when recently exhibited was about 1 foot in height, the mealy stems constituting a distinct contrast to the colour of the flowers. The whorled character as well as the size of the flowers are so well shown in the illustration as to render further comment unnecessary, unless it be to remark that they are of a size similar to those of P. pulverulenta, while the leafage is that of a compact-growing P. japonica. It is indeed a plant of many merits, and has already received an award of merit from the Royal Horticultural Society.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Violet plants turning yellow (*E. M.*)—We have no doubt whatever that the chalky loam in which the plants have been growing is responsible for the leaves of your plants turning somewhat yellow. We have had intimate experience of this variety doing the same, both last year and this, growing in similar soil to yours. The only remedy which seems to suggest itself is that of procuring loam from a sandstone or gravel foundation and mixing with it plenty of sweet three-parts decayed leaf-mould.

Seeds of alpine plants (*Wingate*).—You might try Thomson and Morgan, Ipswich, who pay considerable attention to the seed business of these alpine plants. Any good seed-house, if you send a list of your requirements, would gladly obtain for you what you require. As you say, there are many things to be raised in this way—Drabas, Ramondias, alpine Pinks in great variety, Primulas, Phloxes, Saxifrages, Anemones, Hepaticas and not a few of the Androsaces, Columbines and other plants.

Plants for border (*J. Cook.*),—We think the better plan in your case would be to purchase plants, as in the seedling-raising of perennials not only is there much time taken up, but a large number of seedlings will appear, for which you will have not the slightest use. For example, an ordinary packet of seeds costing sixpence may produce several dozens of plants, and if a large area was being planted this method would suit admirably. A still more serious objection is that many plants well suited to the position, as Pyrethrums, single and double Phloxes, Delphiniums, Michaelmas Daisies, Lilies and others, do not come true from seed, and in such a case an indiscriminate mixture would be disappointing. The following, however, are suited to your purpose and are easily raised from seeds: Coreopsis grandiflora, Gaillardias, hybrid Columbines, Campanula carpatica in variety, C. persicifolia in variety, Aster Amellus, Statice latifolia, blue and white Lupines, Lychnis chalcedonica, Rudbeckias, Galega officinalis alba, Pentstemons, Papaver orientale and others; and for the rockery portion, Aubrietias in variety, dwarf Campanulas, Mossy Saxifrages, Aster alpinus, A. a. albus, Statice incana, Œnothera missouriensis and others. Perhaps on consideration you might prefer to plant a selection of perennials of distinct colours that do not come true from seeds in conjunction with seedling-raised plants. For example, were you to select Phloxes, Aster Amellus, Flag Irises in variety, Trollius, single and double

Pyrethrums, Hepaticas, Megaseas, Sedum spectabile, Day Lilies and other plants, the remaining gaps might be fill d with some of those we have named.

Grubs from Water Lily pond (*L. H.*).—The grubs are the larvæ of caddis flies. They live in cases, which they make of small stones, shells and so on, and drag about with them as they crawl, the hind portion of the body always being protected with the case. Fish are very fond of them, and it would probably be best to introduce some fish, gold-fish or carp, if the water is warm enough, or tench or roach outside. The tench will also keep down snails. You omitted to enclose your address. Please see rules.

TREES AND SHRUBS.

List of creepers (*D.*).—Additional climbers to those already mentioned by you are Hydrangea petiolaris, Akebia quinata, A. lobata, Lonicera japonica and variety halleana, L. sempervirens, L. tragophylla, Jasminum nudiflorum, J. officinale, Aristolochia Sipho, Tecoma grandiflora, Eccremocarpus scaber, Solanum jasminoides, Periploca græca; and if you have not already got them, Wistaria multijuga and the variety alba, Clematis montana and montana rubens, C. Durandii, C. Flammula rubro-marginata and C. Viticella. The reason for leaving the branches of climbers lying on the ground for a few weeks previous to nailing them up is so that the buds may start away equally from base to summit, and also that the soil shall become well settled about the roots. They may lie flat on the ground, but do not leave them in such a position long at this time of the year, for growth is now very active, and if young shoots get several inches long, there is a great possibility of them being broken while nailing is in progress.

Transplanting a yellow-flowered Jessamine (*Isabel Bayley*).—The correct time to transplant a yellow-flowered Jessamine is early autumn, October or November; or late winter, February or March. If you are careful with it, you may accomplish the work now, however. Give the plant a good watering; then next day lift it carefully, keeping as much soil as possible about the roots, and remove it at once to the new station which has been previously prepared. As soon as it is planted, give a good watering, cut the branches back somewhat, and nail them into position as soon as the plant is settled. For two or three weeks the branches should be syringed over two or three times a day, while some shade should be provided if the sun gets very powerful. A mulch of rotted leaves about the base will be helpful.

Buddleia variabilis injured by earwigs (*C. G. O. Bond*).—It is not usual for Buddleia variabilis to be injured by earwigs in the way you describe, and we do not remember to have seen a specimen so badly crippled, although a species of aphis sometimes does damage by piercing the young leaves. Holes made in this manner, though not noticeable at first, are frequently half an inch to an inch across when the leaves are fully developed. Earwigs are difficult to deal with, and the only thing which we can suggest, other than trapping them in the usual way, is to lightly spray the plants over occasionally, taking care to damp both upper and lower sides of the leaves with an arsenical mixture composed of 2oz. of Paris green in twenty-five gallons of water. Spray the mixture on lightly in dry weather. Do not use it in sufficient quantity to thoroughly saturate the leaves, or it may injure the young foliage. As it is, of course, very poisonous, care must be taken not to let it come in contact with broken skin on the hands and other parts of the body of the user.

THE GREENHOUSE.

Information about a greenhouse (*C. E. F.*).—The fact that the contents of your staging become absolutely dry so soon after watering would seem to indicate that the pipes in your greenhouse are kept hotter than they should be. A fierce heat in the pipes is very detrimental to plants in general. Apart from this matter, it is quite possible to so treat your staging that it will retain a good deal more moisture and for a longer period than it does at present. As the trays of which the stage is composed are 3 inches deep, we should advise dispensing with the charcoal at the bottom, but, at the same time, so arranging the slates thereon that the water will be enabled to find its way through the holes in the bottom of the trays. This will enable you to have a greater depth of fine gravel, and this, in conjunction with the fact that by the removal of the charcoal the drainage will be less rapid, should retain the moisture for a much longer period. The additional space may be made up of fine gravel as before, or a reasonable amount of rough sand, either silver sand or otherwise, may be mixed with it, and this will help to retain the moisture. Even if it settles down moderately hard it will be none the worse as a medium on which to stand the plants. It is quite safe to use Cocoanut fibre refuse, as this does not generate mildew, provided it is fresh and clean. Small coke, not coke-dust, forms a first-rate covering for a stage, and from its porous nature retains the moisture well. In several places we know it is thought highly of for the purpose, the coke being passed through a sieve with meshes half-an-inch square, and it is then shaken in a fine sieve in order to allow the actual dust to escape. When this coke is put down, it should be given a thorough watering and the ventilators of the house left open for a few hours, after which no fumes will be given off. Presumably you require the Cobæa to furnish the roof on one side of your greenhouse, in which case it will require a pot 1 foot in diameter. A mixture of loam, leaf-mould and sand will suit it well.

Pelargonium leaves for inspection (*W. Ford*). There is no fungus or insect present on the Pelargonium leaves sent, but it is probable that the cause of the trouble lies either at the root or in the stem. It is possible that a fungus, such as Botrytis, is affecting the stem, but in any case the symptoms shown by the leaf are due to a cutting off of the water supply. The roots should be examined to see whether the soil has become dry or water-logged.

Brugmansia leaves (*Folkestone*).—The leaves are very badly attacked by aphides, and the honeydew which they produce has accumulated upon the leaves, and a fungus (a species of Fumago) is growing upon that, producing the black spots. Fumigation must be very carefully attended to in order to check the increase of the aphides, and the fungus will also then be unable to grow. Any of the better fumigants may be used or the plants sprayed with a nicotine preparation.

To dry Hyacinths, Daffodils and Tulips (*L. K.*). The drying off of these bulbs consists of withholding water from them entirely, though it may be done too soon, to the detriment of the plant. Watering should be continued so long as the leafage remains, when it should be gradually withheld. Given a short rest thereafter, the bulbs may be shaken from the soil and placed in shallow boxes in some airy place where the sun does not reach them. Whether the bulbs will be of any use for flowering another year depends much on whether they have been forced or not and to what extent, also how they have been treated subsequently. There would be no gain in a long-enforced period of dryness for the Daffodils, which may be planted so soon as they have died down, if convenient. The principle of drying off is the same for all classes of bulbs. If those you now possess have been forced this year, they would not force again in 1911.

ROSE GARDEN.

Rose General Gallieni (*A. C. W.*).—We endorse all you say in praise of this beautiful Rose. We consider it one of the best that most successful raiser, M. Nabonnand, has sent out, and this is saying a good deal seeing he was the raiser of G. Nabonnand, Marie d'Orleans, Comtesse Festetics Hamilton, Francisca Kruger, General Schablikine, Papa Gontier, Noella Nabonnand and scores of others. Capitaine Millet you must certainly try. It is one of M. Ketten's raising and originated from General Schablikine crossed with Mme. Etienne. As you say, Mme. Marie Finger is a gem, and we have often thought there must be some Tea blood in it, as there certainly is in Victor Verdier. Marie Finger is by many thought to be synonymous with Mlle. Eugenie Verdier; but there is a difference, although the two have probably been sold for each other so much that it is difficult to get the correct sort. We always find lady visitors to our gardens are attracted by this Rose almost as much as by Mme. Abel Chatenay. The climbing variety of Mlle. Eugenie Verdier is very beautiful, and we think it must be this Rose that you refer to as Climbing Marie Finger. All these climbing sports of popular Roses are well worth growing, even if only as pillar Roses dotted here and there among the bushes. One obtains many more flo them. You are certainly in a good p have blooms on a south wall as early as As regards Climbing Frau Karl Drusch generally conceded that there is no between the original form and the so-call ing. You can bud a row of the original f perhaps a few plants will make extra vigour compared to the others; but if the plants are propagated from, they rever original. Anyone by leaving the growth entirely unpruned may soon have a plant of this Rose.

Marechal Niel shedding its foliage (The failure to cut back the growths last year after would not be responsible for the falling of the fo We should say this is caused by the fact of the r outside, and the exceedingly wet season we hav been detrimental to healthy root-action, especia drainage of the outside border is imperfect. There be canker present at the point where the plant wa If the tree is a young one, we advise you t it; and if you cannot have the border inside drain the outside border, and at the same tim for a covering of boards to divert excessive rain penetrating the soil. Although this glorious flourish in a cold house, it is most successful where abundant heat can be afforded after so that new growths are encouraged early, whi that they will have a longer period of develop one is able then to dry off the plant in Septembe with affording abundance of air, which condit bine in well maturing the wood. Supposing th not replaced now, we advise you to plant standard next autumn. This Rose is always standards or half-standards. Until the plants a size, whether they are half-standard or climbing s it is a mistake to prune too hard until they hav well established. In countries such as Italy, grand Rose grows so luxuriantly, we find it is u to prune to the extent often recommended. A out of weak growths is carried out after the first ing and the main growths spread out as much as p

FRUIT GARDEN.

Young Vine shoots diseased (*G* Your Vine is suffering from a bad attack Vine fungus (Oidium Tuckeri). The best killing it is by drenching the Vines over wi spray of water with the syringe, wet foliage on the under and over sides and al part of the Vine. Then dredge the Vine over with flowers of sulphur, leaving it on days and shading the Vine in the me Keep a keen look-out every day in case extend to other Vines, applying sulp moment it is discovered.

Tendrils on Vines (*Marsh Ma* These tendrils are seldom present o in indifferent health, but common en healthy and vigorous ones, and are to be welcomed. Some Grape-growers c off as soon as they appear; but for our like to see them, believing that they exerc useful function in the economy of the g the Vine. It is certain they do no h depends on the distance apart the V planted as to whether stopping of the la the second or third leaf takes place; not at the first leaf. If the Vine rods 3 feet apart, we should stop at the thi but if less than this, at the second. It remembered that there will be many succe laterals to stop in the course of the sum the Vines would, therefore, become too with foliage if stopping at the third leaf lateral were practised. Certainly let th bear fruit where the shoot which bears it i unless there should be plenty of bunches Vine without it.

Part of a Vine diseased (*J. C. Co* leaves sent are badly infested with mildew, must be destroyed before you can expect any ment in the affected spurs. This can best be dredging flowers of sulphur through a muslin the whole of the parts affected. If you can completely killing the mildew, you may th mmunity from the pest in future years, but no

THE GARDEN.

No. 2011.—Vol. LXXIV. June 4, 1910.

CONTENTS.

EW PLANTS AT THE TEMPLE SHOW .. 273
OLOURED PLATE
Dahlia Orange Fire King 274
orthcoming events.. 274
OTES OF THE WEEK 274
ORRESPONDENCE
Poisonous plants .. 275
Draba ciliata 275
Narcissus Poeticus plenus.. 275
ARDENING OF THE WEEK
For the South and South Midlands.. 275
For the North and North Midlands.. 275
otes and queries from a Surrey garden .. 276
REENHOUSE
Cacti with beautiful flowers 276
Clematis indivisa .. 276
otes on Orchids .. 277
A new variety of Miltonia bleuana 277
LOWER GARDEN
Sweet Pea chat .. 277
Sweet Peas at the Temple Show .. 278
FLOWER GARDEN
A hardy flowér of blue colouring .. 278
The Italian Squill .. 278
ROSE GARDEN
Rare varieties of Rosa rugosa .. 279
KITCHEN GARDEN
A good new main-crop Pea 279
Lettuces in hot weather 279
GARDENING FOR BEGINNERS
Garden work week by week 280
Vegetable Marrows for beginners .. 280
Summer Spinach .. 281
Thinning Grapes .. 281
THE TOWN GARDEN.. 281
The Temple Show .. 282
Editor's Table 282
BOOKS.. 283
ANSWERS TO CORRESPONDENTS
Flower garden .. 283
Greenhouse 284
Fruit garden 284
SOCIETIES 284

ILLUSTRATIONS.

he new Miltonia bleuana Hessle variety 277
bed of Anchusa italica Dropmore variety 278
spray of the Portuguese Heath (Erica lusitanica) 279
ahlia Orange Fire King .. .. Coloured plate
low to grow good Vegetable Marrows 280, 281

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions elating to matters upon which they wish advice from competent authorities. With that object he wishes to make e "Answers to Correspondents" columns a conspicuous ature, and, when queries are printed, he hopes readers ill kindly give enquirers the benefit of their assistance. ll communications must be written clearly on one side ly of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, t he will not be responsible for their safe return. All asonable care, however, will be taken, and where stamps e enclosed, he will endeavour to return non-accepted ntributions.

As regards photographs, if payment be desired, the Editor ks that the price required for reproduction be plainly stated. must be distinctly understood that only the actual photoapher or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

NEW PLANTS AT THE TEMPLE SHOW.

PLANT specialists always look forward to seeing a number of new plants at the Temple Show, and as a rule they are not disappointed. As usual, there were this year a large number that received either first-class certificates, awards of merit or botanical certificates, and descriptions of these are given below.

Odontioda King George V.—This is the most beautiful member of this bigeneric family we have ever seen, and created quite a sensation among the Orchid specialists. The blossoms are as large as those of an Odontoglossum crispum and of very similar shape. The colour is exceedingly difficult to describe. The broad margin of the segments is a sort of bright orange rose, then comes a narrow ring of pale yellow, followed by a large blotch of scarlet-crimson with a few yellow blotches at the base. The labellum is comparatively large and has the same unique colouring. First-class certificate.

Odontoglossum eximium Empress of India. This is a very rich-coloured form of this handsome Orchid, the colour being a sort of crimson-purple margined with white, tinted with purple. The flowers are of perfect form, but very closely placed on the stem. First-class certificate. Both the above were shown by M. Ch. Vuylsteke, Loochristi, Belgium.

Miltonia vexillaria Memoria Baron Schrœder.—A very pretty form of this excellent Orchid, the colour-scheme being most delicate. The bright rose ground colour is margined pure white, the blotch at the base of the large labellum being crimson-carmine, this also having a margin of pure white. First-class certificate. Shown by Messrs. Sander and Sons, St. Albans.

Odontoglossum Memoria King Edward VII.—A noble Orchid and worthy of the Royal name bestowed upon it. Apparently having eximium blood in it, the flowers of this plant are of exquisite shape and very rich colouring, this being best described as rosy purple, mottled and moderately heavily margined with pure white. In addition, the flowers are well placed upon the stem. Shown by Messrs. Sander and Sons. First-class certificate.

Cattleya Mendelii Princess Victoria.—A very beautiful flower indeed and worthy of the highest honour. In the young flowers the sepals and petals are pure white, this changing to a most delicate pink with age. It is the labellum, however, that is the most handsome part of the flower. This is broad, beautifully frilled, with a delicate yellow hue extending into the throat, a very dainty combination of purple and cream being placed towards the margin. Two flowers on the plant had been open seven weeks. Shown by Messrs. Mansell and Hatcher, Limited, Rawdon, Leeds, First-class certificate.

Sobralia Charlesworthii.—This is a new and most distinct and beautiful species from Columbia. It has the long, slender stems characteristic of the family, the large hooded flower being rich purple-crimson in colour with a yellow stripe down the centre of the labellum. Shown by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

Cattleya lawrenceana Mary Regina.—With the exception of a very faint purple tinge on the labellum this is a pure white flower, the blossoms being rather small and somewhat closely placed on the stem. Shown by Messrs. Charlesworth and Co. First-class certificate.

Odontoglossum Promerens.—Here, again, we have flowers of perfect form and colour markings. These are dull blood red, mottled and margined with white, the whole being very even. Award of merit.

Odontioda Royal Gem.—A large-flowered plant of much beauty, the blossoms being more even than is usually the case. The ground colour is a sort of rose pink, and this is heavily mottled and at places obscured with scarlet-crimson. The labellum is comparatively large, and in addition to the usual yellow has a few bright crimson dots near the base. Award of merit. Both the above were shown by M. Ch. Vuylsteke.

Cattleya Mendelii Queen Maud.—A very large flower with pure white sepals and petals, with a peculiar shade of rose pink in the lip, the contrast of the white and this colour rendering it a most distinct flower. Shown by Messrs. Charlesworth and Co., Hayward's Heath. Award of merit.

Lælio-Cattleya Endora Mark Hambourg. A very beautiful and clearly defined flower of large size and exquisite colouring. The sepals and petals are white, very faintly tinged with pink, but it is the broad labellum that is the conspicuous feature, this being white, tinted yellow in the throat, the lip itself being rich carmine-crimson with a very narrow margin of white. Shown by J. T. Clifton, Esq., Lytham. Award of merit.

Lælio-Cattleya luminosa magnifica.—A large and very deep-coloured variety of considerable merit. The sepals and petals are very deep orange scarlet in colour, the large labellum being a beautiful glossy self carmine. A most vigorous-looking plant. Shown by His Grace the Duke of Marlborough (gardener, Mr. G. Hunter). Award of merit.

Cattleya Mossiæ Magali Sander.—This is one of the most handsome forms of C. Mossiæ we have seen, the narrow sepals and broad petals being pure white. The large labellum has a blotch of yellow extending into the throat, a purple blotch being situated on the lip itself and margined with white. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Odontoglossum eximium Emperor. — A well-coloured and beautifully shaped variety of this dark-flowered Odontoglossum. The reddish crimson ground colour is daintily margined with white, blotches of white also appearing at the bases of the segments with the usual, though somewhat small, yellow crest. Shown by Messrs. Sander and Sons. Award of merit.

Bifrenaria bicornaria.—A curious little flower of hooded form, the yellowish green ground colour being heavily mottled with dull brown. Shown by Messrs. Sander and Sons. Botanical certificate.

Lycaste peruviana.—A rather small flower of dull yellow hue, the segments being narrow and acutely pointed. The foliage is decidedly ribbed, and the pseudo-bulbs are flattish oval in shape. Shown by Messrs. Sander and Sons. Botanical certificate.

Rose Duchess of Westminster.—A very handsome Hybrid Tea Rose of pink and flesh pink shading, the flowers being of a more or less conical shape. Shown by Messrs. A. Dickson and Sons, Newtownards. Award of merit.

Begonia Rose Queen. — This somewhat descriptive name has been given to one of the handsomest varieties we have seen, the clear rose self colour accompanying a superbly formed flower. Shown by Messrs. Blackmore and Langdon, Bath. Award of merit.

Rhododendron Alice.—A glorious flower of rose pink colour, the handsome blossoms being produced in huge trusses. It is a seedling from Pink Pearl, and possesses the same fine habit of growth.

Rhododendron Juliana.—The flowers of this are of flesh pink colour and heavily fringed. These two were exhibited by Messrs. J. Waterer and Sons, Bagshot, and each received an award of merit.

Rhus typhina laciniata. — An elegant member of the Sumach family, and a pretty plant for the shrubbery or for grouping in any good position the garden affords. The leaflets are somewhat drooping and much cut; hence the varietal name. In autumn the plants assume a rich yellow and red tone, which is distinctly ornamental. Shown by Mr. R. C. Notcutt, Woodbridge. Award of merit.

Rose Excelsa. — This is a delightful wichuraiana variety, of rich glowing crimson-cerise colour with white centre. It is a double-flowered variety, the blossoms depending in long trusses from the well-grown plants. The exhibited standard-grown plants of it were of an educational character and were much admired. Shown by Messrs. Paul and Son, Cheshunt. Award of merit.

Sarracenia Willmottæ (tolliana × purpurea).—The pitchers of this fine new hybrid are about 15 inches high, sub-erect, much inflated at the apex, with widely expanded mouth surmounted by a handsome lid 4 inches to 5 inches wide, at first freely decorated with crimson lines, but in the more mature state assuming a rich shade of crimson. In the sub-erect growth and inflated pitchers there is evidenced the influence of S. purpurea. The variety is evergreen and should prove moderately hardy. Shown by Mr. A. J. Bruce, Chorlton-cum-Hardy, near Manchester. Award of merit.

Marguerite Mrs. F. Sander. — A pure white-flowered variety of great beauty. The flowers are not unlike a huge double-flowered Pyrethrum, and are borne on long stems; they should prove of great value for cutting. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Cytisus Dallimorei (Cytisus albus × C. andreanus).—A hybrid Cytisus of much merit and beauty, and said to be the first artificially raised hybrid of its kind. The predominating colour shades are pink and purplish crimson, the flowers, which are profusely borne on the branches, being about the size of those of C. albus. This exceptionally good and distinct plant was raised about eight years ago by Mr. Dallimore of the Royal Gardens, Kew, and is named in compliment to that gentleman. From the Royal Botanic Gardens, Kew. Award of merit.

Azalea Floradora (mollis × sinensis).—A lovely variety, in which the chief colour shades are salmony apricot with salmon marking. The flowers are of the largest size and produced in big bunches at the ends of the branches. Shown by Messrs. R. and G. Cuthbert, Southgate, N. Award of merit.

COLOURED PLATE.

PLATE 1401.

DAHLIA ORANGE FIRE KING.

THIS is one of the most beautiful Dahlias for the garden, and the plate was prepared from flowers kindly sent by Miss Jekyll, who uses this variety in many exquisite colour-schemes. It possesses, perhaps, little to recommend it to the florist; but the plant is strong in growth, strong in colour, and blooms abundantly. It is a Dahlia for the border, and its colour suggests its name.

FORTHCOMING EVENTS.

June 7.—Royal Horticultural Society. Exhibition of Flowers, Fruit, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by the Rev. Professor G. Henslow, M.A., V.M.H., on "Survivals Among Plants of the Past." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

June 8.—East Anglian Horticultural Society's Meeting.

NOTES OF THE WEEK

Medals at the Temple Show.—In t official list of medals awarded that we publish last week, the following was omitted: Silv Banksian medal to Wickham Noakes, Esq., Sels Park, Croydon (gardener, Mr. Howarth), Calceolarias.

National Vegetable Society.—On Sat day last a deputation of the executive commit visited the spring Cabbage trials conducted on hea clay soil by Mr. G. Hobday at Romford, Essex. T plants seen were all from a second sowing an produced some most interesting results, which wi be published in detail in the course of a few week Some varieties proved quite unsuitable for suc heavy soil, and the information gained should be considerable value.

Rhododendron exhibition at Regent's Park.—Messrs. John Waterer and Sons, Limited Bagshot, Surrey, inform us that their annual exhibi tion of Rhododendrons at the Royal Botanic Gardens Regent's Park, London, N.W., will be opened on Monday next, the 6th inst., and will remain open for the remainder of the month. This exhibition is well worth seeing. We believe that tickets o admission can be obtained by writing to Messrs Waterer at Bagshot.

The Royal Gardeners' Orphan Fund. At the annual festival of this most praiseworthy institution, a report of which appears elsewhere, the chairman, Sir Jeremiah Colman, Bart., and others emphasised the necessity of gardeners themselves doing what they could to support the fund, which exists for the maintenance of orphans of gardeners During the past twelve months no less than £1,71 has been expended in this excellent cause, and we know full well that only those cases which thoroughly deserve it receive support. The hard-working committee is now faced with the problem of having more deserving cases waiting for help than funds in hand will enable them to assist, and for this reason we appeal to all our readers, gardeners and those who love their gardens, to support the fund to the best of their ability. Gardeners, it is true in many instances cannot do much; but if everyone were to subscribe a little, it would amount to a great deal and enable the committee to assist many deserving cases. Full particulars concerning the fund can be obtained from the secretary, Mr Brian Wynne, 35, Surrey Street, Strand, London W.C.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Queen wasps and Cotoneaster microphylla.—The above plant is at the time of writing (May 24) in full bloom, although the flowers are so inconspicuous lying close along the flat, spreading branches as to escape notice, except for the extraordinary number of bees and queen wasps which frequent them and call attention to the flowers they are feeding on. Most people know that every queen wasp killed now is one less wasps' nest in August. Their fondness for the Cotoneaster microphylla offers an opportunity of dealing with wasps which should not be lost. If one gets a flat piece of wood about 2 inches wide and 18 inches long and can hit sharp and straight, one can do considerable execution. I have myself killed over fifty queen wasps in this way during the last few days, and hope for a larger bag. Owing to the flat, spreading nature of the shrub, it is easy to strike with deadly

effect, and it is certainly worth gardeners' while where fruit is grown to get at the queen wasps in this way.—C. G. O. B., *Farnham.*

Poisonous plants.—In reference to the letters recently appearing in THE GARDEN about poisonous plants, perhaps my experience with Primula obconica may be of interest. For several years I handled a plant occasionally with no ill-effects, but one year, having to manage a fairly large batch, I noticed my hands became, between the fingers, a mass of watery, itching pimples, which in a few days would disappear only to come again when the plants were next handled. So I wore gloves if I were compelled to touch the plants. During the past three or four years I have discontinued the gloves, but always rinse my hands well in cold water. I never feel any ill-effects. An occasional plant has no ill-effects even without the rinsing. I am always careful not to touch my face with the bare hand, and from my own experience have come to the following conclusions: Anyone with a "moist" hand is liable to suffer, as witness between my own fingers, always the dampest part of the hand. If the blood is in good condition the risk is much less, and the poison is more virulent on a hot day. It is also probable that in its native habitat there exists a plant which would alleviate, if not cure, this poisonous irritant, as witness our own Nettle and the Dock.—W. P. WOOD, *St. Peters, Kent.* [This correspondence must now cease.—ED.]

Draba ciliata.—Not having as yet come across an account of this alpine in previous papers, I take the liberty of calling the attention of your readers to a plant which I regard as being quite worthy of notice and an acquisition to the rock garden. It is white, and in saying this I suspect I shall alienate the sympathy of 20 per cent. of readers, although it is a very good white. The leaves form a dense cushion of green, and the plant together attains a height of about 5 inches or 6 inches when two or more years old. Another great charm of the plant is its easy growth. It does not share with other Drabas the bad habit of dying off in places when two or three years old. It is the most profuse-flowering species of Draba I know, and my attention has been drawn to it by the sight of its persevering and flowering on two or three pieces of rockwork, where it even competes with the masses of bloom produced by the sulphur, double dark golden and common yellow forms of Alyssum saxatile. In company with these plants it makes a brave and harmonious colouring. Draba ciliata is equally at home on an ordinary rockery or on a rather dry wall; it does not seem particular whether on a slope or on level ground, and would most probably do admirably on the edge of a well-drained border near the path in company with mossy Saxifragas. It is the whitest alpine I know, of such easy growth, and as such I recommend it to all.—J. WOOD, *Plant Club, Boston Spa, Yorks.*

Narcissus Poeticus plenus.—A little while ago I read some correspondence regarding the prevalence of blind buds in this beautiful variety. In the autumn of 1907 I planted a small border with English-grown bulbs, and in the following spring quite 75 per cent. of the buds were blind. Last year I had a very fair show, but about 50 per cent. were blind. This season, however, there is a profusion of bloom and I do not see a blind bud, though I notice the flowers are finer and more numerous on the sunnier and drier portion of the border. The bulbs have not been disturbed since they were planted, so that this would seem to lend strength to the argument that the best results are to be obtained from established clumps.—W. M. ELKINGTON, *Ladye's Hill, Kenilworth.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

PEACHES.—Ripening fruits should be gone over every day and, when found to leave the trees readily, gathered and stored in a cool place, where they will keep for a week or ten days. After the trees are cleared of fruit, the old wood should be cut out and the new growths tied up in their places. Afford plenty of water to the roots, and freely syringe overhead. Allow the house to remain open night and day, dispensing with fire-heat altogether.

Vines.—Freely ventilate during the day houses where the Grapes are ripe, and allow a little air during the night. In successional vineries where the fruit is swelling, keep the floors and stages damped down frequently.

Melons.—Reduce the water supply to plants where the fruits show signs of turning ripe, and see that they are quite safe from dropping.

Hardy Fruits.

Peaches and Nectarines.—Attention must be given to the thinning of the fruits; 9 inches to 12 inches is the recognised distance between the fruits. All misplaced specimens should be removed. The trees will need to be thoroughly syringed or lightly hosed daily, and the borders must not be allowed to get dry. A good mulching is very beneficial, especially where the soil is of a light nature, as it is an excellent plan for conserving the moisture. Lay in the shoots for next season's crop as they get long enough.

Cherries.—Tie in all those growths that are required for the extension of the tree, stopping others at the fourth or fifth leaf. Syringe with quassia extract to prevent black fly. This must be discontinued before the fruit shows signs of colour.

Strawberries.—If not already done, these should have some material placed over the ground to prevent the fruit from getting dirty. If straw is used it should be clean, not that which has been used in the stable. Long grass makes excellent bedding and keeps the fruit clean. As soon as this work is accomplished, place the nets over the beds.

Flower Garden.

The work of bedding out should be finished as soon as possible. Should the weather be dry, frequent waterings will be necessary till the plants take hold of the fresh soil. Plant Stocks, Asters, Zinnias and all tender annuals.

Dahlias.—Providing the places were prepared for these as advised in an earlier calendar, they may be planted. Place the permanent stake to them at once and give each plant a stout label.

Plants Under Glass.

Calceolarias.—Seeds of the herbaceous varieties may be sown now. Great care is necessary in doing this, as seeds are so minute and require to be evenly distributed. Fill up a 6-inch pot or seed-pan with a mixture of half loam and half leaf-mould which has had a good sprinkling of sharp sand added to it. Thoroughly moisten the soil before sowing by placing the pot in a bucket of water. After sowing, put a piece of glass over the pot or pan to prevent rapid evaporation, and place it in a cool, shady place to germinate. A hand-light in a shady corner is a splendid thing in which to raise Calceolarias.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Vegetable Garden.

PLANTING BRASSICAS.—Now that the bedding out has been got rid of for another year, more time will be available for the kitchen garden work, and no time must be lost in planting out all of the Cabbage tribe that are ready. It is often advised to select showery weather for this work, but a fairly long experience has taught me that dry-weather planting, if properly done, gives the best results. My reasons for saying so are that although this family much prefer firm ground, they, at the same time, resent having the soil soured by treading much on it while in a wet state, and that slugs cause very considerable damage if allowed their own free will; and without tramping a good deal on the borders or breaks nothing much can be done to prevent the ravages of these pests. In dry weather, on the other hand, slugs can travel about but little, and one can move freely among the plants to dust them with lime, soot or wood-ashes without doing the ground any harm.

Watering.—My method of watering newly planted vegetables is very successful and demands but a minimum of time and labour. Leave a "cup" or depression round each plant and fill this with water from a can without a rose. If the ground is very dry go over the plants twice. After the water has drained away, hoe the whole surface, filling up the cups round the plants with the dry soil, and, unless the drought is very protracted, no more water will be required. Even in gardens where there is no disposition to "club" or "worm," it is good practice to puddle the roots of all the Brassica tribe before planting. A good puddling mixture is made with soot and clay or garden earth. Mix with water until of the consistency of thick cream. Some add a little cow-manure, and if not overdone it is excellent.

Dibber v. Trowel.—I have on several occasions experimented with these tools, and although I know it is rather unorthodox, I must vote for the dibber. The results, as far as my experiments went, were absolutely the same, while with the dibber the work can be performed in about a third of the time taken with a trowel.

Flower Garden.

Blanks in Flower-beds.—A sharp eye must be kept for any failures in beds or borders recently planted. While it is good management to have all pots and boxes cleared off at the very earliest opportunity, it must not be forgotten to leave a few plants of all the different kinds for filling possible blanks. If all such be collected together before a general clean-up takes place, they can usually be stowed in quite a small space, and the watering of them is a simple matter. The hoes should be kept at work among all newly planted stuff, as nothing conduces more to a successful start into growth than a loose, open surface. The seed-pods of Pansies and Violas should be picked off occasionally, as by so doing the blooming season will be greatly prolonged and succeeding flowers will be larger and of better colour.

Fruit Garden.

Strawberries.—No other fruit more quickly resents dryness at the root, and if dry weather sets in, copious drenchings of water must be given. Surface wetting is of no use, as this quickly evaporates and never reaches the roots. After a good soaking with clear water the plants will be greatly benefited by having a good dose of liquid manure occasionally. Do not apply it too strong, but rather give it weak and often.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

NOTES AND QUERIES FROM A SURREY GARDEN.

THE OXLIP.

IT is not of the true Oxlip (Primula elatior of botanists) that I am writing, but the Oxlip of our gardens—hybrid forms that have sprung up and are as plants much more beautiful and desirable. Originally the race was a natural hybrid between the Cowslip and the Primrose, and possibly the Polyanthus has been introduced to increase the number of colours. It has long been a favourite here, and my stock has all been raised from seed. There seems to be no end within certain well-defined limits to the variety of colour it is capable of producing, ranging from pale yellow through all the shades to deep gold and orange, thence into the terra-cotta browns, bronzes and chestnuts, on to the reds and dark crimsons. New intermediate colours seem to crop up year by year, and one watches with interest the flowering of the seedlings.

The flowers are entirely fertilised by the bees. I have never been to the trouble to cross-fertilise them myself, though I have often thought of so doing. They are extremely easy to grow, and prefer a partially shaded position and not too dry a soil. Some of my plants produce twenty to thirty flowering stems, carrying ten to fifteen flowers each, and the plants are often 12 inches across. The footstalks are longer and the flowering stems taller, and the whole aspect of the growing plant is more graceful and beautiful, than their near cousins, the Polyanthus. They start coming into flower quite early, say, mid-February, and continue up to the end of May. I sat down to write about them partly because I have just planted last year's seedlings into their permanent quarters—it should have been done before, but I am afraid some of my garden work is behindhand and, like the season itself, late—and partly because they happen to be at the moment the chief decoration in the room in which I am writing. By keeping the different shades of colour distinct and in different vases, an excellent effect is obtained. A bowl of them made to represent an actual growing plant is quite beautiful.

I generally sow the seed directly it is gathered; it soon ripens, and is fit to sow in July. I believe the resulting seedlings, if treated well, would flower the following spring; but when not planted out from the seed-bed till late, as has happened with me this year, only a few of them flower. They are perennial, and the plants are at their best at three years old. They can, of course, be divided; but seedlings are far more satisfactory in every way. The Oxlip is one of the flowers that Shakespeare mentions. He calls them "bold" in contrast to the

> pale primroses
> That die unmarried, ere they can behold
> Bright Phœbus in his strength,

a quaint but not quite accurate statement, though it may pass, perhaps, if allowance is made for poetic licence.

As in colour, so in scent and foliage these hybrids vary. I think the most beautiful variety I have is a flower of a real good crimson colour, rather larger than a sixpence. The outside of the petal is even a better colour than the inside, and as the flowers, or some of them, show a tendency to hang their heads, this, for the reason stated, is not objectionable, and the colour effect is superb. The foliage of this particular plant is much darker and more vigorous than usual. They are all sweetly scented, the smaller flowers having the strongest scent, as if they were trying to make up in one respect what they lacked in another, and so render themselves equally attractive to their friends the bees.

If the plants are to be kept in good health, it is advisable to pick off all the flowers except one or two heads, as to permit all the seed to ripen would allow the plant to finish its mission in life, and it would, therefore, probably die, or, at any rate, be considerably weakened. One good head of a dozen flowers will give you much more seed than you want from each plant, especially if you grow them in any quantity. It is also a wise plan at the time you pick the seeds to give the plants a mulching of rich soil with some good rotten manure mixed with it. The hot months of the year are the trying ones for these flowers of the spring, and they will always appreciate a liberal watering during that period. M.

THE GREENHOUSE.

CACTI WITH BEAUTIFUL FLOWERS.

DURING the latter part of May and onwards for a time the different flowering Cacti form one of the showiest classes of greenhouse plants. Years ago the few forms in cultivation were very popular in gardens; then came a period of comparative neglect; but of late the showy members of the Phyllocacti group have made many friends, and I learn that there is an increasing demand for the best of them. This is not at all to be wondered at, as they give but little trouble and may be well grown by the amateur, providing that the lightest part of the structure be given them and the winter temperature does not fall much below 50°. In some country districts these flowering Cacti are favourite window plants, and well suited they are for such a purpose, particularly if the window is a very sunny one, as this just meets the requirements of these Cacti. When it is borne in mind that the progenitors of the present-day race are for the most part native of the hot, arid plains of Mexico, their partiality to full sunshine can be readily understood.

Even if a greenhouse is, for the sake of its flowering specimens and their admirers, shaded from the sun's rays, there is often a position, especially at the end, in which these Cacti may be allowed uninterrupted sunlight. If such is not the case, their culture need not on this account be barred, as they will succeed perfectly if stood out of doors during the summer, particularly if assigned a good position at the foot of a south wall or in some similar spot. This ensures the thorough ripening of the wood, which is so essential for the production of flowers another season. Though these Cacti are, as above stated, essentially sun-loving plants, it is an advantage to shade them during the flowering season, as in this way the blooms last longer than if they are fully exposed to the sun.

The cultural requirements of the Phyllocacti are not at all exacting. Repotting, if needed, should be done as soon as the plants are out of flower, as at that season root-action is active, and there is then plenty of time for them to become established before winter. As it is by no means necessary in all cases to repot every year, the operation, when it is carried out, should be thoroughly performed. A suitable compost may be made up principally of loam and sand, and if the loam is of an adhesive nature, it may be lightened by some leaf-mould being incorporated therewith. In the case of large specimens, a little brick rubble broken moderately fine and mixed with the potting compost is an advantage. In repotting it is very essential that the pots are clean and thoroughly drained, while they must no too large, as it is more than probable that a deal of the old soil may be taken away wit unduly distressing the roots. The new soil be pressed down moderately firm, and, if n sary, the plant should be secured to a stick, the branches are heavy and apt to sway a unless this is done. When repotting is not requi the plant is greatly assisted by an occasional of liquid manure during the growing season.

These Cacti need to be watered rather fr during the summer months, but the supply sh be lessened as autumn advances, and during depth of winter they may be kept almost dry, not parched. With the turn of the days renewed root activity, more water may be giv increasing the supply as the buds develop.

Propagation is a very simple matter, as if shoots are pulled out of their sockets with a s twist they form the best of cuttings, no furt preparation being necessary. A length of 4 inc to 6 inches forms the best cutting. Half-a-do of these cuttings may be inserted around the si of a 5-inch pot, using the same kind of comp as recommended for potting, and if stood or shelf in the greenhouse and care is taken not overwater, they will soon root. Late spring early summer is the best time to insert the c tings.

Messrs. Veitch of Chelsea have long identified the selves with the culture of these attractive plants. few good varieties of this class are Agatha, bri rose; Cato, crimson and violet; Cooperii, crea Delicatus, light pink; Paradox, orange violet; Pla scarlet, shaded orange; and Rosalie, violet o metallic lustre. Others worthy of special n are Phyllocactus phyllanthoides, a form of wh known as German Empress has been much sho within the last two or three years. The flow of this variety are much smaller than any of preceding, but are borne in great profusion, th colour being a bright rose pink. The Rat's-t Cactus (Cereus flagelliformis) is a first-rate wind plant, as, if suspended, the long shoots will ha down for a considerable distance, and when plant is studded with its pretty pink flowers it really charming. To ensure this a sunny wind is best for it. H. P

CLEMATIS INDIVISA.

IN some of the warmer parts of the country t New Zealand Clematis may be grown and flowe successfully on a wall or fence out of doors; but most parts of the country it has to be accomm dated in a cool greenhouse. It has in some pla contracted a bad name as being a plant of indiffer constitution and very liable to severe atta of mildew. In most cases this may, however, traced to wrong methods of culture, and usua to its being planted in too close and warm a str ture. Providing frost is kept away, the co the plant is grown the better, while free ventilat is necessary at all times. Under the best possi conditions, with a good loamy soil contain lime, the plant grows freely and quickly cov an extensive area. It is seen to the great advantage when the main branches are trai to wires beneath the glass of a conservatory corridor and the secondary branches allowed hang loose. Under such conditions at floweri time the starry white blooms are seen to the b possible advantage. C. indivisa may be grafted spring on pieces of root of the common C. Vital the work being done indoors in a warm structu As soon as the union of stock and scion is compl however, the young plants should be transfer to a cooler house. Young one year old pla form nice pot plants for greenhouse decoration spring. D

NOTES ON ORCHIDS.

The Labiata Section of Cattleya.

THE genus Cattleya contains some of the most gorgeous Orchids in cultivation, and, judging from the quantity annually imported, the amount of space they occupy at the leading shows, the number employed in floral designs and he high prices paid for unique specimens, they old a high position among flower-lovers, and only ake a second place to the useful Odontoglossum ispum.

At one time the group was considered merely orms or varieties of Cattleya labiata, although ey possessed several distinctive features suffi- ent to warrant them being raised to specific ank, and which are now recognised by the Kew uthorities. Any amateur who takes up Cattleyas advised to purchase established plants till he ets well acquainted with their requirements, hen newly imported pieces can be bought, which re doubly interesting on account of the possi- ility of flowering an albino, or one with extra ide petals or some superior characteristic that laces it in advance of the ordinary type.

Taking C. labiata first, this may e looked upon as an example of he remainder named in this article far as habit and shape of the ower are concerned. It is a showy ubject, with bright rose sepals nd petals, a deep crimson-purple p and the throat marked with ellow. The pseudo-bulbs are from inches to 10 inches long, and the ick, leathery leaves are about he same length. Flowers are pro- uced in late autumn from the urrent year's growth, usually etween eight and ten weeks after ey are fully developed. Till he spikes are cut off the soil must e kept moist, when a rest is llowed at the coolest end of the ouse during the winter months, ith only sufficient water to keep he bulbs in a plump condition.

C. aurea and C. dowiana, two ighly prized Orchids with nankeen ellow blossoms excepting the lip, hich is crimson-purple streaked ith gold; C. Warneri; C. War- ewiczii (gigas of gardens), a andsome species having dark rose epals and petals and a deep agenta-purple lip; C. gaskelliana; Eldorado; and C. luddeman- ana (speciosissima) produce their he spikes before the resting eriod; while C. percivaliana, the agrant C. Schrœderæ, C. Trianæ, Mendelii and C. Mossiæ flower ter undergoing a season of repose, so water is ven in less quantity when the pseudo-bulbs are ade up till the following spring or directly signs flowering are apparent.

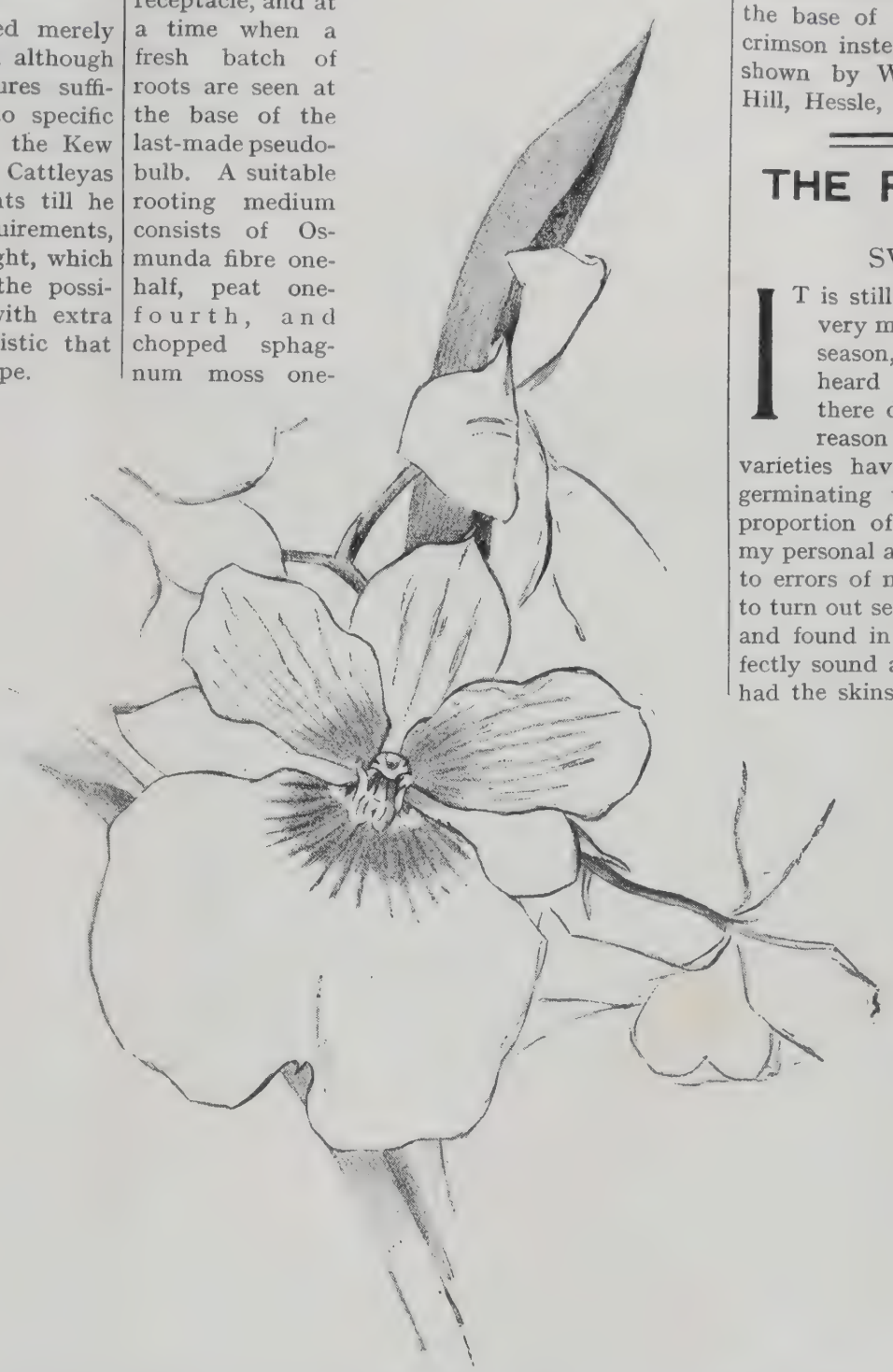
Noting at what stage they bloom is very essential the grower, because he can then provide proper eatment and secure the maximum amount of ower. Two others belonging to this group are Rex and C. maxima, but they are more scarce d never imported in such numbers as those eady referred to. The rotation in which they oom is as follows: Taking the autumn C. labiata st, then we have maxima, percivaliana, Trianæ, hrœderæ, Mendelii, Mossiæ, luddemanniana, ex, Warneri, Warscewiczii, gaskelliana, aurea, wiana and Eldorado.

A Few Cultural Hints.

An average temperature of 60° Fahr. should be provided, and a moist, buoyant atmosphere is necessary during active growth, while ample ventilation is required whenever the weather warrants the opening of the ventilators, and shading must be employed to protect the foliage from the rays of the sun, but this ought not to be overdone, as Cattleyas enjoy a certain amount of light, so the blinds may be rolled up directly it is safe. Repotting takes place when the plants have reached the edge of the receptacle, and at a time when a fresh batch of roots are seen at the base of the last-made pseudo-bulb. A suitable rooting medium consists of Osmunda fibre one-half, peat one-fourth, and chopped sphagnum moss one-fourth, with a sprinkling of finely broken crocks to render the mixture porous. Hard potting must be guarded against, but it should be firm and brought up level with the rim of the pot, which is filled one-third of its depth with drainage. If attention is paid to the flowering and resting seasons, and watering done accordingly, little difficulty will be experienced in growing the Orchids quoted; neither are they expensive to purchase.

When newly imported plants are received, each piece must be thoroughly examined and cleansed with some reliable insecticide, and then placed in a pot just large enough to comfortably take the pseudo-bulbs with a free admixture of small crocks. Keep them well shaded for a few weeks and syringe freely between the pots, when they will soon recover and commence to grow. After the first pseudo-bulb is completed they may be given a larger pot and treated as established specimens.

SENTINEL.



THE NEW MILTONIA BLEUANA HESSLE VARIETY. (*Two-thirds natural size.*)

A NEW VARIETY OF MILTONIA BLEUANA.

AMONG the many plants that received first-class certificates or awards of merit from the Royal Horticultural Society on the 3rd ult. was the beautiful Hessle variety of Miltonia bleuana. This is a very large-flowered form, the blotch at the base of the large lower segment being rich crimson instead of the usual rosy mauve. It was shown by W. P. Burkinshaw, Esq., The West Hill, Hessle, and received a first-class certificate.

THE FLOWER GARDEN.

SWEET PEA CHAT.

IT is still too early for one to be able to say very much as to the prospects of the coming season, but, judging from plants seen and heard of in various parts of the country, there does not appear to be any material reason for complaint up to now. Some varieties have apparently been rather slack in germinating with most growers, and a goodly proportion of the losses which have come under my personal attention can be indisputably ascribed to errors of management. In one instance I had to turn out several pots for a friend in this trouble, and found in three instances the seeds were perfectly sound and would, therefore, have vegetated had the skins been chipped a little and the seeds replaced; in other cases the seeds were set far too low in the pots; while in still more the soil had been kept so wet that it absolutely stank, and no reasonable body ought to expect that young plants with their tender roots could possibly live in such wretchedly dirty surroundings.

After the time that thousands of healthy plants were placed in their permanent positions there was most unsatisfactory weather. For several nights the frosts were far too severe for the comfort of any ordinary plant, and, what was infinitely worse, in the majority of instances the winds day and night were terribly cold and cutting, and sapped the energies of the plants to such an extent that some of them looked as if it were impossible for them to properly recover. However, the actual deaths were few, and the plants have now grown away from the set-back and are looking as well as, or better than, has been the general rule for two or three seasons.

A small collection planted in the garden of a friend and neighbour did not move for three weeks after planting. The stock was imported from another friend in the provinces, and never has it been my fortune to see plants with a finer set of roots; but the winds prevented them from getting away, and eventually they commenced to turn yellow and look so weak and sickly that with the warm weather a little stimulating fertiliser was applied and watered in. Immediately they responded to the delicate attention and grew strongly and well, and now promise to develop into a grand collection that will yield plenty of flowers for the decoration of the garden and the home; neither the soil nor

the atmosphere is good enough to hope to produce anything up to exhibition standard.

Although it is a detail to which amateurs who are not specialists in Sweet Pea culture do not attach the slightest importance, careful tying to the supports should never be neglected. The fact that in many instances it is unnecessary after the earliest stages by no means justifies every grower in concluding that it is not worthy of consideration; as a matter of fact, a little timely attention in this direction often saves subsequent trouble. The shoots are not always so accommodating as to go just where they are wanted, and the man who uses a strand of bast is at once able to correct what is amiss, for he puts the growth precisely where it will get the full benefit of light and air, and thus ensures, or practically so, complete satisfaction.

It is imperative, too, that a constant look-out shall be kept for green fly, which will attack the growing points and do irreparable injury in a short time if allowed to work unchecked. There should always be immediately at hand a distributor containing a supply of Tobacco powder, so that the first enemy seen may be brought to an untimely end; it is not the one or two that the inexperienced regard with comparative complacency that make the mischief, but the abundant progeny. Therefore, let there be no hesitation in taking steps for the prompt destruction of the pest when it is seen. Because Tobacco powder is mentioned, it must not be thought that it is the only material that may be utilised for this purpose; each grower can choose what is most convenient, provided that it is quick in action and brings about the desired extirpation. In very light soils it will probably be wise to give water during the next few days, but it should not be started until it is necessary; then give a heavy soaking, wait until the surface has dried, loosen the soil carefully with a fork and replace the mulching, should this have been, as is usually desirable, drawn back before the water was applied.

SPENCER.

SWEET PEAS AT THE TEMPLE SHOW.

IT is at the Temple Show that lovers of the Sweet Pea expect to see the first flowers of the novelties, of which, in many cases, they have plants growing in their own gardens. Last year the groups staged were very good indeed; but at the show held last week, moderate only about summed up the several groups shown. No doubt this was due to the weather which has been experienced this spring—cold over a prolonged period, and then unusual heat for a week or so previous to the show. This must have upset the calculations of several who intended to exhibit, but who had to fall out at the last minute.

Robert Sydenham, Limited, Birmingham, had a good lot of flowers in their group, the blossoms being large and the colours good. Syeira Lee, a delicate pink flower of the waved section; a beautiful unnamed seedling of Helen Pierce form and veining, but quite a different colour, this being rosy purple instead of blue; Prince of Orange, a fine bright orange-coloured variety that is said to stand sun well; Mrs. Routzahn Spencer, cream and pink, prettily waved; and Marjorie Willis, rose, crimson and a tint of orange, were the pick of the group.

H. J. Jones, Limited, Lewisham, had a very nice group indeed, the long, stout stems of the blossoms being freely commented upon. Arthur Unwin, very delicate pink and beautifully waved; Earl Spencer, rich orange; Miss R. C. Pulling, large waved white flowers delicately flushed with pink; and Mrs. E. Noakes, a pretty shade of pale blue, were notable varieties. We also admired a particularly good strain of the old Helen Lewis, which was shown in extra good condition.

In Messrs. Dobbie and Co.'s stand there were several unnamed seedlings of promise, a beautiful waved lavender and sky blue flower and another of deeper shade being very good. Sunproof Crimson was superb, the large flowers being particularly rich-coloured. Edrom Beauty and Earl Spencer were two in the orange section that were well shown. The first may be regarded as a very much glorified Helen Lewis, and in the latter we have a slightly waved rich-coloured Henry Eckford, the blossoms, too, being much larger. Masterpiece, rosy mauve waved; Mrs. Hugh Dickson, cream and pink; and Isobel Malcolm, a large cream waved, were other notable sorts, all the flowers in this exhibit being of good quality.

Mr. W. E. Alsen of Derimead, Hants, made a special feature of Stirling Stent in his exhibit. This is an orange-coloured variety with pr waved standard and good-sized flowers, the ora colour being very rich in the younger flow Lord Charles Beresford, a large sky blue with p margin; Mrs. Noakes, a paler flower of much same shade; and A. A. Fabius, a delicate glow cerise waved flower, were three new ones that be worth looking after.

Messrs. E. W. King and Co., Coggeshall, put a beautiful group of well-grown flowers, the arran ment lending beauty to the whole. Stan varieties were mostly shown, but Stirling St and Queen Mary were two novelties. The lat is a pale blush pink variety of the waved secti and may prove a good one out of doors. M Wm. King and Frank Dolby were shown in splen condition.

A BED OF ANCHUSA ITALICA DROPMORE VARIETY.

A HARDY FLOWER OF BLUE COLOURING.

(ANCHUSA ITALICA DROPMORE VARIETY.)

UNEQUALLED for effect in the herbaceous bord is this beautiful flower, being, indeed, the fin of all the larger blue-flowered perennial plan It is so much finer than the type that it might w pass for a distinct species, but the fact that it do not come true from seed, as far as our experien goes, and that the seedlings have a tendency produce flowers as small, or nearly as small, those of the common type, tend to prove th this is its parent. The flowers of the type are small that it is not a sufficiently effective plant f the herbaceous border, but the blossoms of t Dropmore variety are nearly 1½ inches across, a are borne in such profusion that the whole pla becomes a sheet of deepest blue. A vigoro specimen will attain a height of 6 feet or 7 fe with a diameter nearly as great, and if not shut and shaded by other plants a specimen will b from the ground level to the topmost shoot, cloud of blue that invariably attracts univers admiration. Were its flowers short-lived, i beauty is so great that it would be welcomed the border, but it has the additional merit of lasti in bloom for a very lengthened period. Prop gation must be effected by root-cuttings. T plant must be lifted in the winter and the roo cut into pieces 1 inch to 2 inches in length a inserted in pots or pans of very sandy soil. In few weeks growth will appear, and the little plan may be grown on until ready for planting out. open spaces in the wild garden this Anchusa pr duces a beautiful picture when in full flower, a a group of plants on a sloping lawn are also mo effective. For indoor decoration the flower-spra are very valuable, and when cut at a length 4 feet form delightful arrangements in tall vas

THE ITALIAN SQUILL.

A PRETTY little Scilla, and one which for long w hardly obtainable in the ordinary way of purcha through the bulb-dealers, is that named Sci italica, the Italian Squill. It flowers after Sci bifolia and S. sibirica, and is thus a most use little bulbous plant for the border, the grass or t rockery about May, when it gives a number of pretty pale blue conical heads of flowers. increases fairly rapidly, and can be cultivated any ordinary soil in a border or in almost any pa of the garden. It reaches a height of 6 inches o little more, and flowers extremely freely ev when the bulbs are well crowded togeth There is a rather scarce white variety, S. i. alb and recently S. italica has been imported from native habitats, with the result that there is considerable variation in the shades of blue lilac in the flowers. Bulbs should be procured autumn, and planted as soon as possible with t crowns from 2 inches to 3 inches or 4 inches dee

Dumfries. S. ARNOTT.

DAHLIA
"ORANGE FIRE KING."

...udsum & Kearns, Ltd., London, S.E.

THE ROSE GARDEN.

RARE VARIETIES OF ROSA RUGOSA.

LOOKING at the remarkable growth of that splendid novelty, Lyon Rose, set me wondering whether we should ever be able to achieve such a decided advance in the Japanese Roses as we see here in the Hybrid Briars, , strictly speaking, in the Rosa rnetiana group. In the Lyon ose there is in its young foliage most beautiful ruby red colour ggestive of some of the Hybrid eas, but the Briar-like vigour is so very apparent, and the enanting colours are now well own. Why should not there be me such blending of the Japanese oses and the Hybrid Teas? I ok forward to the accomplishent of some marvellous breaks this very hardy group, for they e amenable to cross-fertilisation, witness that splendid introducon of Dr. Muller's Conrad F. eyer. M. Cochet-Cochet has proced perhaps the nearest approach to a yellow rugosa in one med Daniel Lesueur. It is scribed as "large flowers, cuprmed, long buds, colour nankeen llow, tinted with salmon, turning pale yellow when fully open; se of petals canary yellow." his is a very attractive descripon, but as I have not seen it wer yet I cannot say whether is a correct one. I have the se under observation, and hope report later on concerning it.

From this achievement it seems ry evident the time is not far stant when we shall have yellow gosa Roses. What a grand dition they would be to our rden Roses! I can just imagine at a furore would be created if Rose appeared, say, of the rdiness of Conrad F. Meyer th the colour of William Allen chardson, or a yellow bloom of e exquisite formation of the gle white rugosa. Perhaps some y M. Pernet-Ducher may turn s attention to the rugosas, nding with them some of his nderful unnamed seedlings, from ich he has evolved such beauties Lyon Rose, Marquise de Sinety, thur R. Goodwin and André mon. I believe Rodophile avereaux, one of M. Pernetcher's seedlings, has really rugosa od in it, but of this I am not tain; I notice, however, that rr Peter Lambert of Trier ces this Rose among the rugosas in his catalogue.

M. Jules Gravereaux, Dr. Muller and Herr Peter mbert have been zealously working upon the gosas for some time. The former gentleman s introduced quite a number, and doubtless y would be seen in his unique Rose garden at lay. In one of his catalogues, dated 1900, he cribes forty varieties of Rosa rugosa besides eral hybrids of this group, and since that date has himself raised a good number of novelties, a very beautiful sort being one named à Parfum de l'Hay, a deliciously fragrant kind with blooms superior to Mrs. Anthony Waterer. Mme. Réné Gravereaux has blooms of a tender lilac colour, flowers large and cup-shaped, and with a delicious odour. Herr Peter Lambert's beautiful novelty, Carmen, is a very brilliant addition to the group. Its flowers, which are single, are of a brilliant blood red. As they are produced in great abundance the colour effect of a single bush is fine, and a hedge of it would be very attractive. As a proof that the pollen parent gives to a Rose largely its distinctive colouring, we have it exemplified here, Carmen being a cross between R. rugosa and the rich-coloured Hybrid Perpetual Princesse de Bearn. There is yet another beautiful break in this group in the very distinct rugosa repens alba, which Messrs. Paul and Son of Cheshunt have evolved from the type and R. wichuraiana. The growth of this Rose is prodigious. At Kew there are also some pretty hybrids between R. rugosa and R. wichuraiana. P.

A SPRAY OF THE PORTUGUESE HEATH (ERICA LUSITANICA).
(*From "Rock and Water Gardens." See page 283.*)

THE KITCHEN GARDEN.

A GOOD NEW MAIN-CROP PEA.

LAST season I noticed when growing the value of Hobday's Essex Wonder for use from June to October. It is a splendid cropper, and those who can grow tall Peas will, I am sure, be pleased with this new variety. This year, after seeing its splendid cropping qualities, I am growing it for use at the season named. As I have a rather retentive soil, I think this excellent Pea will give a good return. At Romford, in Mr. Hobday's grounds, it was all one could desire, and as regards its table qualities it was first-class. It is a rich marrow Pea with a dark green colour and pods above average size. As regards its quality, it may be classed as a good type of Ne Plus Ultra, and, like that old but good variety, the new form continues to yield for a long time. It grows about 5 feet high, and, owing to the plant producing pods close down to the soil and continuing to crop, it may be classed as one of the most profitable garden Peas for the amateur who can give it ample room.

G. WYTHES.

LETTUCES IN HOT WEATHER.

IN many gardens there is almost a glut of Lettuces during the spring and early summer, but when the hot and dry weather of July and August is experienced, then comes a scarcity. This is not wholly due to injudicious cultivation, but in many cases may be traced to ignorance of those varieties that are specially suitable for giving the best salad during the period named above. Most gardeners realise the necessity for rich soil and deep cultivation for late crops of Lettuces, but this in itself will not suffice. Strangely enough, there is still a tendency to place trust in the upright or Cos varieties for the hot weather, and the result is that they quickly run to seed without, in many instances, even attempting to form hearts. It is among the Cabbage varieties that we must look for Lettuces to withstand the heat and drought, and, fortunately, there are several of excellent quality. One of the best of these is Holborn Standard, a beautiful curled variety that forms large, solid hearts even in the most unfavourable weather. Another similar Lettuce is Supreme, and All the Year Round will also give good returns. Where very young Lettuces are appreciated, almost any variety may be sown thickly on rich soil; then, if freely watered, tender young leaves will be quickly formed. These will be most valuable when fresh salads are none too plentiful. The small plants can be used whole, merely cutting off the roots, and very delicious they are on a hot summer's day and infinitely better than old, tough examples. H.

GARDENING FOR BEGINNERS.

HOW TO GROW GOOD VEGETABLE MARROWS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—The warm weather of the last fortnight has made all the crops in this department grow at a great rate, and weeds also have not been standing still. Every opportunity must be taken to keep the hoe going where possible, as, in addition to killing weeds, this creates a fine surface to the soil and thus prevents rapid evaporation. Plants of Brussels Sprouts, Cabbages, Kales, Savoys and similar greens are now ready for planting out, providing the seed was sown as advised in April, and the sooner they are put in their permanent quarters the better. Brussels Sprouts and Kales ought to be in rows not less than 2 feet apart, and if an extra 6 inches can be given the first-named so much the better. The others mentioned will be planted according to the variety, small sorts naturally requiring less room than those which grow larger. In lifting the plants from the seed-bed use a hand-fork or trowel; if they are pulled out, many roots get broken and the plants take longer to become established. In the event of the weather being dry it will be necessary to give water daily until the young plants are fairly established.

Flower Garden.—This week will see bedding in full swing, and the earlier this is now completed the better it will be for the plants. Many beginners and amateurs pin their faith to Geraniums and Lobelias, but, of course, there is a very wide range of plants that can be selected. It is useless and impossible to give details of designs in a calendar of this description; tastes differ so much, and one would need to devote a long article to the subject to do it justice. It may be well, however, to give a few hints concerning the actual planting. Before attempting any design, go over the plants available and work out imaginary combinations of colours, heights and so on. Then, before planting, all the plants for one bed should be laid or stood out in their places. By this method it will be seen whether there are enough plants to go as close as one would wish. If there are not, there will be an opportunity of spacing them out rather more thinly. All pot plants should be thoroughly watered a few hours before they are to be used. Disturb the roots as little as possible, and make the soil firm around them as the work proceeds. Sometimes it is necessary to use a few old Geraniums to make up a bed. Where this is so, they should be evenly distributed among the younger specimens, and if tall, as most likely they will be, plant them in a sloping manner and so reduce their height. Above all, avoid weird combinations of colours. One or two distinct colours in a bed are usually far better than a greater number, unless they are in the hands of an expert designer.

Greenhouse and Frames.—Many who grow Arum Lilies prefer to plant them out for a time during the summer, and where this course is adopted the present is a good time to do the work. The plants certainly seem to grow more vigorously when repotted after a sojourn in the open. It is a good plan to make shallow trenches similar to those for Celery, and work a good dressing of well-rotted manure in the bottom. The Arums can then be turned out of their pots and the whole ball planted intact. It will be necessary to give them copious waterings for a time. The middle of September is a good period to repot the plants. Where a few small specimen Fuchsias are required to flower in the greenhouse in autumn, some cuttings may be put in now, selecting young non-flowering shoots a few inches long for the purpose. If planted in sandy soil and kept in a moist and shaded place in the greenhouse they will quickly root, and if subsequently potted up and pinched about twice will make sturdy plants in a short time.

Fruit Garden.—The earliest Strawberries will soon be colouring now, and no time must be lost in getting nets over the beds, otherwise birds will take heavy toll of the earliest and most-prized fruits. Where possible, a framework should be built round the bed, so that when the nets are placed over it the owner can walk comfortably in the enclosure and so gather the luscious fruits. But many will not be able to provide anything so elaborate. In any case the nets must be kept above the plants, and a good method of doing this is to place thick logs at intervals among the plants and let the nets rest on these, or a few short, stout stakes may be driven into the soil and cross-bars nailed to them. Whichever method is adopted, it is highly essential that no holes are left, otherwise the birds are sure to find them and the labour will have been in vain.

A. A.

VEGETABLE MARROWS FOR BEGINNERS.

MOST amateur gardeners delight in growing their own vegetables, and one much cherished kind is the Vegetable Marrow, which may be grown with the greatest ease. Almost any soil is suitable. A common way is that of planting them in a heap of manure and road refuse, where they certainly succeed. The more satisfactory way, however, is that of raising the plants in pots, placing the latter on a hot-bed with a gentle bottom-heat or using the services of a hand-light, and allowing the seeds to remain until germination has taken place and the young plants have been hardened off subsequently. I prefer to sow my Vegetable Marrow seeds in pots, placing one seed in each pot, which should be 3 inches in diameter. By placing the seeds singly in pots as I have suggested their subsequent treatment is more easily mar Dibble in the seeds or cover them with a suff layer of soil to ensure germination, and in a paratively short time the seedlings will be th the soil, and need careful handling in conseq If the pots containing the seeds are kept in a r cool temperature during germination, it w found a great advantage to cover the small with pieces of glass to promote germination. ten the soil throughout after the seeds have sown. In Fig. 1 is shown three pots; the contains the seed which is to be covered with the second pot shows the seedling Vege Marrow developing the third leaf, and the pot—that on the right of the picture—repres the fourth leaf just developing. Sturdy, s jointed growth should be encouraged, and can only be achieved by preventing too h conditions. Admit air to the cold frame or h light gradually at first, and with greater free as the young plants become more inured to necessary hardier conditions that prevail in c quence. It is a mistake to allow the young see plants to get drawn and weakly, as this is a sign of deterioration. Pot on the plants larger pots as soon as the 3-inch ones become of roots, using in this instance a rich and la soil that will encourage sturdy growth. Keep young plants growing on steadily from the see stage until they are planted in their perma quarters; this is easily done by admitting air to the cold frames or hand-lights until the sufficiently hard to bear exposure to the without feeling any inconvenience from shift.

It is not at all an uncommon practice whe gardens are small to sow Vegetable Marrow in the quarters where they are to grow, unche and undisturbed, until the resulting plants yielded their supply of matured Marrows. Qua are, of course, prepared beforehand and the sown 1 foot or more asunder, and the seeds minate very well under this treatment, a shown in Fig. 2. Here we see a corne a Vegetable Marrow-bed treated in this Where a heap of manure is used for the Ma bed, and this is prepared with care and exce heat is carried off, the results are quite satisfac Sow the seeds rather less wide apart than suggested above, in case of failure; it is an matter to lift alternate or odd plants w necessary if they are unduly crowded growth progresses.

2.—A NUMBER OF VEGETABLE MARROW PLANTS SOWN IN P PARED BEDS OUTDOORS WHERE THEY ARE TO MATU THIS IS A SIMPLE METHOD OF RAISING THESE PLANTS SHELTERED POSITIONS.

1.—RAISING VEGETABLE MARROW PLANTS IN POTS. FROM LEFT TO RIGHT WILL BE SEEN THE SEED AS SOWN AND A SEEDLING IN TWO STAGES OF GROWTH.

3.—A VEGETABLE MARROW RECENTLY PLANTED AND SHELTERED BY A HAND-LIGHT FOR A TIME AGAINST FROSTS AND WINDY WEATHER. NOTE ITS STURDY CHARACTER.

The planting of Vegetable Marrow plants raised pots is simple. Should the heap of manure and ad refuse be got ready in good time, the young tablished plants may be planted therein as on as all danger of frosts is over. If a bushel of il is placed on the prepared bed for the reception each plant, so much the better. I prefer to e leaf-mould, old Mushroom-bed manure, wood-shes and loam, and in this mixture the Vegetable arrow does well. In Fig. 3 is shown a young lant under a hand-light. The plants are ry easily controlled in these circumstances, and ealthy, sturdy growth is encouraged. When the lants are put out in cold frames, they soon make eadway, and sturdy growth in the first instance ill ensure the development of specimens such as e represented in Fig. 4. The future of such lants is practically assured. In some cases the lants are too exuberant in their growth, and this ecessitates the thinning out of the shoots so that fficient space is left for the growths to develop. nly the weakly growths should be removed, thus oncentrating the flow of sap on the stronger es retained. Air and sun should both play eir part in maturing the growth, and good crops ill then follow. Water freely, spraying the liage on the evenings of hot days.

Some growers plant their Vegetable Marrows on e flat, digging out a trench about 2 feet ep and of a length sufficient to meet all emands. Fill the trench two-thirds with anure, returning the ordinary garden soil so at a slight trench is formed. Plant in this d good results will assuredly follow, especially dry quarters. Good ordinary Vegetable Marrows e the following: Long Green Striped, Long hite, Moore's Cream, Pen-y-Byd and Bush or uster. D. B. C.

SUMMER SPINACH.

the early part of the summer there are few crops at do better or are more suitable for growing etween rows of Peas than Spinach. Where the ants are left at the final thinning quite 5 inches under, they rarely run to seed prematurely, but evelop extra fine, succulent leaves—that is if the il is as rich as it should be. Thick sowing of eds and overcrowded rows of plants run to seed rematurely and interfere with the well-being of e Pea crop; but the well-grown Spinach plants not grow tall nor do harm to the Peas. I favour d practised the system of growing Spinach in mmer-time in rows on a separate plot, the soil eing made as rich as possible by mixing with it enty of well-rotted manure. In addition, a good top-dressing of rotted manure was spread all over the surface of the soil between the rows when the plants were about 9 inches high. At that stage they were well rooted and capable of taking up much nourishment, and I found I could in this way obtain an exceptionally heavy crop from a comparatively small plot of ground. The rows should be north-east to south-west, or east to west; then the sun's rays do not dry up the surface much. B.

THINNING GRAPES.

It is a fact that amateurs and young gardeners take a great deal of interest in thinning Grapes, especially the first bunches. Very rarely is the first attempt a successful one, and I must say here that few persons really do themselves justice; they are over-anxious, wishing to succeed, become nervous and do some damage to both the berries and the bunches. The crop—the bunches—must be as evenly distributed over the Vine as possible; then the finish of the berries will be more perfect. The bunches feed considerably from the return or downward flow of sap, and so, when they are distributed evenly over the whole of the Vine, each bunch gets its fair share of nourishment. This fact must be taken into consideration when the cultivator is engaged in cutting out surplus bunches.

In order that an inexperienced grower may know how many bunches to leave on a Vine, I would remind him that a duly established Vine will bear and bring to perfection 1½lb. weight of Grapes per foot run of rod; but it is always wiser to leave a lighter than a heavier crop. The future well-being of the Vine must be considered as well as its present. Having duly removed the surplus bunches, those retained should be thinned when the berries have set and are about the size of large Radish seeds. First remove all loose, seedless berries, commencing at the bottom or point and finishing at the top of the bunch. The scissors must be bright and clean, and the operator should keep the bunch steady by means of a forked stick or a soft strand of matting; I favour the latter. The berries must not be rubbed, nor should the bunch be twisted in the least degree. The point berry of each wing must be retained all over the bunch; more berries must be cut out near the bottom than at the top of the bunch, as there is more space there for the final swelling. The centre of the bunch also must be well thinned. One hundred berries form a nice bunch. SHAMROCK.

THE TOWN GARDEN.

ROSEMARY.—Of fragrant-leaved shrubs the Rosemary is certainly one of the most prized, and in those gardens or localities where the plant is permanently successful it is worthy of every encouragement. This reference to its permanent success in gardens is made advisedly, inasmuch as in not a few instances a long spell of winter frost will kill the plant outright. In gardens south of London, however, the plant will stand for years in the open border, and when in flower in May and June one hardly knows which to admire most — the delicious leaf fragrance, about which there is an old-time charm, or the delicate blue of the profusely borne blossoms. In uncertain districts the plant is so good and so welcomed by all that one might urge the growing of it in sheltered places. Almost totally indifferent as to smoke, the plant is most happy, and I imagine most hardy when grown on chalky soils.

THE OLD CRIMSON PÆONY.—If bold and handsome by itself and probably unique in its way, this fine old type of a hardy perennial border plant merits a far greater popularity than it appears to receive, the intensely coloured blossoms making a finer show perhaps than the later-flowering Chinese varieties, none of which, so far as I know, possess the exact shade of colour. Pæonia officinalis flore-pleno is the full title of this grand old plant, which only asks to be planted in the early autumn months—September or October, for example—and to be left alone in deep rich soil to provide a more glorious display of its flowers each succeeding year.

TYING UP HERBACEOUS PLANTS.—The coming of the Pæony compels me to say a word or two on the all-important and very seasonable work of giving support to hardy border flowers generally, inasmuch as it is one of those plants whose natural beauty is sacrificed by ill-conceived notions of supporting them. In certain positions, and where the plants occupy the shrubbery or fringe the grass verge or the lawn, little or no staking should be required, while the little necessary should be so arranged to preserve the natural development of the plant. I have seen not only this plant, but such unoffending morsels of vegetation as the garden Pink among many, trussed and tied up in bundles almost to the point of strangulation; and only recently in a town garden one could not help but notice the ill-effect of some Emperor Daffodils the foliage of which had been closely laced to a stick in each instance.

HOW TO STAKE PLANTS.—If I start this paragraph in a negative sense and say that the most common error in staking border flowers is to put one stick in the centre of a clump and bunch all the flowering stems thereto, it is merely to show that such a proceeding is quite wrong. Dwarf-growing subjects like the Pink require no support of any kind, while the taller-growing Carnations are best supported by several thin Bamboo canes or stiff, straight rods of galvanised wire placed about the plant with a looping strand of string to keep the flower-stems in position. For bolder plants like the Pæony, Bamboo canes answer admirably, and if placed early in position with the head pointing in an outward direction, the sticks will be presently hidden from view by the overlapping leafage. A primary point to observe in the staking and tying of all border flowers is that the contour, as well as the natural development, of any plant or group be preserved, not, as too frequently happens, to be rendered unsightly by pulling them into besom-like shapes or bundles. The staking of plants should in all cases receive early attention. Finally, if staking generally be regarded as a necessary evil rather than as an absolutely essential thing, it will be much less likely to be overdone than is now the case. E. H. JENKINS.

4.—A VEGETABLE MARROW PLANT GROWING FREELY AND SHELTERED FOR THE TIME BEING BY A COLD FRAME, THE LATTER WILL SUBSEQUENTLY BE REMOVED.

THE TEMPLE SHOW.

(Continued from last week.)

ORCHIDS.

THE group exhibited by Sir Jeremiah Colman, Bart., Gatton Park, Reigate (gardener, Mr. J. Collier), was a very artistic one indeed and worthy of the highest praise. Two large bays with a semi-circular projection in the centre were filled with numerous examples of Miltonias, Odontoglossums, a large number of fine Odontiodas, Cypripediums and other genera. All the plants were well grown, the Miltonias and Odontiodas calling for special mention in this respect, the flowers being large and of very rich colour.

Messrs. Mansell and Hatcher, Limited, Rawdon, Leeds, staged a large and beautiful group of splendidly grown plants, all of which were shown in the pink of condition, notwithstanding their long journey. Two fine and large batches of the scarlet Renanthera imschootiana were very prominent, and other noticeable examples were Miltonias, Phalænopsis rimestadtiana with long trusses of pure white flowers, a few very fine forms of Odontoglossum crispum, and some beautiful Cattleyas, among them being a very large and prettily coloured variety of Cattleya Mossiæ. Cypripedium niveum Rawdon Beauty was also good.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, were maintaining their high reputation with a tastefully arranged group, consisting of many fine Cattleyas, Odontoglossums, Oncidiums and many others of botanical and horticultural interest. Among many that called for special mention were Bulbophyllum calomarium, a curious plant with long tail-like inflorescences of chocolate-coloured flowers; Phalænopsis rimestadtiana, and a very fine rich-coloured form of Cattleya Mossiæ, as well as a white variety of this excellent Orchid.

The group staged by Messrs. J. Cypher and Sons, Cheltenham, was resplendent with many good and widely varied plants, notable among them being the Miltonias, Cattleyas, Odontoglossums and Cypripediums. All the plants were in perfect condition, and the arrangement was such as to show them to the best advantage. Among many that we specially noticed were some fine Odontiodas, Odontoglossum ardentissimum in several fine forms, a beautiful plant of O. Vuylsteke, some beautiful forms of Lælia purpurata, Cattleya Mossiæ Peach Blossom, a delicate-coloured flower of much beauty; Dendrobium nobile virginale, pure white; D. dalhousieanum luteum; some excellent Masdevallias, including a good batch of M. Veitchii grandiflora, and a good form of M. harryana.

The group arranged by Messrs. Sander and Sons, St. Albans, was quite a work of art, the arrangement taking the form of a steep bank broken up with recesses. Two tall stands held plants of Phalænopsis rimestadtiana and Renanthera imschootiana, and under these were displayed high-class specimens of many and widely varied genera. Among a few that called for special mention were Epidendrum Frederici Guilielmi, Brasso-Cattleya Veitchii, Odontioda Vuylstekei Sander's variety (very brilliant indeed), Odontoglossum Jasper stupendum, O. Princess Mary, O. crispum excelsa, a fine specimen of Brasso-Cattleya Queen Alexandra, B.-C. Veitchii and Miltonia vexillaria Memoria G. D. Owen, a very rich-coloured flower with crimson blotch.

His Grace the Duke of Marlborough, Blenheim Palace (gardener, Mr. Hunter), exhibited an excellent bank of well-flowered plants, these being tastefully embedded in Nephrolepis. Odontoglossums, Lælias, Lælio-Cattleya and Cypripediums were the chief kinds shown. Among those that specially appealed to us were Cattleya Lord Rothschild, Phalænopsis rimestadtiana, Lælia purpurata × L.-C. Aphrodite, and L.-C. Fascinator rosea.

Mr. Harry Dixon, Spencer Park Nursery, Wandsworth Common, put up a small group of well-grown plants, these embracing Miltonias, Odontoglossums in several good forms, Cattleyas and others.

Mr. William Bolton, Wilderspool, near Warrington, had a few choice plants of Cattleyas and Odontoglossums, a variety of Cattleya Mendelii with a dark, well-defined lip being very beautiful indeed. C. Mossiæ hardyana variety, with curiously striped flowers, and some good forms of Odontoglossum crispum were worthy of special mention.

F. Menteith Ogilvie, Esq., The Shrubbery, Oxford (gardener, Mr. W. Balmforth), had a very large and extensive group of plants that were really superb examples of high-class culture. Miltonias, Odontoglossums, Cattleyas, Lælio-Cattleyas and Cypripediums predominated, and some beautiful forms of these were to be seen. Odontoglossum crispum Madonna, a beautiful pale cream and yellow flower; O. crispum xanthotes, O. luteo-purpureum vuylstekeanum, Miltonia vexillaria chelseaensis, Cypripedium callosum Sanderæ, and a number of beautiful Odontiodas and unnamed forms of Odontoglossum crispum all added their quota of beauty to this group.

Messrs. Charlesworth and Co., Hayward's Heath, staged a very large and comprehensive group of plants that was a centre of admiration the whole time. A fine mass of Miltonias and Phalænopsis rimestadtiana occupied the centre, this being flanked on either side with two bays filled with numerous choice examples, Odontiodas, Cattleyas, Lælio-Cattleyas, Odontoglossums and Dendrobiums being prominent. Lælio-Cattleya Golden Glory, Cattleya Mossiæ Wagneri, Odontoglossum Fascinator Kaiser Wilhelm, O. luteo-purpureum vuylstekeanum, O. wilckeanum Imperator, Cattleya Mendelii Queen Maud, C. M. King Alfonso and Miltonia bleuana Queen Mary were a few of the most conspicious.

Leopold de Rothschild, Esq., Gunnersbury Park (gardener, Mr. G. Reynolds), exhibited a fine group of Vanda teres near the entrance to the tent. These plants were remarkably well grown, and reflected the greatest credit on those responsible for their culture.

Mr. J. Robson, Bowdon Nurseries, Altrincham, put up a small group of Odontoglossums, Miltonias and Cattleyas, some of the first-named showing very rich colouring and excellent form.

J. T. Clifton, Esq., Lytham Hall, Lytham (gardener, Mr. J. Float), exhibited a good group of plants that contained some very interesting examples. Phalænopsis rimestadtiana, a number of fine forms of Odontoglossum crispum, Lælias, Miltonias and Cattleyas called for special mention, the plants being well flowered and in vigorous health.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, was showing a number of beautiful and interesting plants in his well-arranged group; Odontiodas, Cattleyas and Odontoglossums predominated. Among the first-named, O. Vuylstekeæ, with large, deep rose and orange flowers, and O. Bradshawiæ were conspicuous, and other excellent subjects were Odontoglossum crispum xanthotes Vine House variety, a fine plant of Cattleya Skinneri alba and Bulbophyllum dayanum.

Messrs. William Bull and Sons, King's Road, Chelsea, put up a fine group of plants, these being arranged in a delightful manner, the grotto of Odontoglossums attracting much attention. Cattleyas were very freely displayed, and we specially noticed some good forms of C. Mendelii. Among the Odontoglossums were many of beautiful colouring and good form, and the whole group reflected credit on those responsible for its creation.

CARNATIONS.

Messrs. Stuart Low and Co., Enfield, N., an artistic group of Carnations in pleasing v in which perpetual and Malmaison kinds freely shown. Rival, Britannia, Enchantr Roseate Dawn were good perpetual kinds, an cess Juliana and Princess of Wales were e Malmaison sorts.

Mr. C. F. Waters, Balcombe, Sussex, m excellent exhibit of Carnations, chiefly o perpetual kinds. Good varieties were Waters (a very fine bright cerise pink). W Enchantress, Britannia, Sarah Hill, Mrs Burnett and Gwladys—a really bright exhibit

Messrs. R. H. Bath, Limited, had a exhibit of Carnations, in which the flowers w good quality and the collection pleasingly v Robert Craig, Winona, Rose Doré and Blossom were excellent.

Mr. C. Engelmann, Saffron Walden, sh a good-sized group of his large-flowered, crimson Carnation Carola. This is a spl variety, and has a pleasant, faint Clove scent.

Mr. B. E. Bell, Guernsey, staged a small g of mixed Carnations, many of the leading newer varieties being shown in excellent condi

A beautiful group was arranged by Mr. W Lancashire, Guernsey. Among the many excel flowers that we noted here, Robert Craig, T. W. Lawson, White Perfection, Carola Mikado were particularly conspicuous.

Messrs. Young and Co. of Cheltenham also h delightful arrangement of these flowers, Mik Yellow Queen, Rose Enchantress, Britannia Winsor being in the pink of condition.

Mr. A. F. Dutton, Iver, Bucks, had remarkably fine group of perpetual-flowe Carnations, the individual blossoms of these b large and the colours in every instance r Enchantress, Mikado, Fair Maid and Ma Queen were four of the most conspicuous sor

The Carnations from Mr. H. Burnett, Guern were, as usual, of very high quality indeed, were displayed in a most attractive man The President, Snow Queen, Mrs. W. B. Cl Jessica and Fortuna were sorts that speci appealed to us.

THE EDITOR'S TABLE.

A WILD DOUBLE PRIMROSE.

We have received from Mr. John Rimen, M bath, Devon, a most interesting development of wild Primrose, this being a perfectly double form of the true Primrose colour. Our correspondent s the following note with the flowers: "I am sen some blooms of wild Primroses, which I thin have grown with success considering I found plant growing quite wild last year. It has about twenty-five blooms this year. What I w to know is: Is it an uncommon hardy flower, an it worth propagating?"

A RARE DOUBLE POLYANTHUS.

Mrs. Lloyd kindly sends from Croghan Ho Boyle, flowers of the double Polyanthus Rex T dore. The climate of Ireland suits every form Primrose, and those sent are beautiful specim It was formerly common in gardens, but it gradually disappeared in the hotter and d districts. All the Primroses require a cool moist atmosphere.

FLOWERING SHRUBS FROM LEONARDSLEE.

Mr. W. A. Cook, gardener to Sir Edmund Lo Bart., Leonardslee, Horsham, Sussex, sends u very fine collection of flowering shrubs and o plants, many of which are rare. Among

ododendrons were R. blandfordiflorum, the ult of a cross between R. cinnabarinum and triflorum. The flowers of this hybrid are rich nson in colour and the shape of the first-named ent, but larger. Sir E. G. Loder's White is a utiful large-flowered variety; R. Dalhousie, ge, pure white; and R. Coombe Royal has large vers that remind us of Pink Pearl, the colour, vever, being paler. Among other shrubs were ca arborea and E. Veitchii, both with white vers; Ægle sepiaria, with its bright green nches, long spines and orange-like white blossoms, villea rosmarinifolius, Ceanothus veitchianus, the little-known Fendlera rupicola with its te, pink-tinged flowers.

BOOKS.

Rock and Water Gardens.*—One of the st serviceable and practical of books relative to above subject which it has been my pleasure to use is from the pen of the late Mr. F. W. Meyer Exeter, and bears the above somewhat comprehensive title. Those who knew Mr. Meyer in his time would also know something of the eminently ctical side of his nature and the profoundness his knowledge in all that pertained to hardy t gardening. And if to these be added an erience equalled only by his unbounded enthum for the subjects we have now in mind, the der has a right to expect matter of the most ul and helpful description. Nor will he expect not realise. The volume before us, indeed, ther by illustrations or by text, teems with rest, while the soundness of the eminently ctical information imparted merits the highest se. Indeed, in not a few instances the author, er than distributing to his readers in a more ss wholesale sort of way a superabundance of ningless platitudes, prefers to take them into lower depths of these things, and, as a matter act, shows in an unmistakable manner, by illustrations on pages 26 to 29 inclusive, ything from the rough weedy bank before a was struck to the completed article at the e of the last day's work. In like manner the trations facing pages 120 and 121 are not only llent in their way; they provide also much food reflection, while being very instructive as to t is possible of accomplishment with raw mate- such as that presented to view, and where these ger spots, at once offensive to the eye and not tle to the senses, may be speedily transformed beauty spots which possess a never-failing rest to those to whom they belong.

hat any work which accomplishes so much in e directions we have named has already fied its existence goes without saying, yet e are but a fragment of the whole—the essen- preliminaries of a man who, knowing his work, set about it with a confidence fully justified he experiences of the past. Nor is it in one ction alone that the illustrations of this excel- book, with all their instructiveness or the or's unerring dictates of right or wrong, al to one so strongly, for the same thorough- and the apparent desire that his readers shall ell grounded in the work he had so much at t pervades the book from end to end.

the rock garden portion, as at page 78, a ter is devoted to the work at the outset, and title, "A Good Foundation," in conjunction diagrams on the opposite page, will be most helpful. Of more than a little interest, too, is the chapter or chapters dealing with the use, as well as the abuse, of stratified rocks, and probably the not infrequent hideousness and ineffect arising from the latter have done more to keep rock gardening in its truest sense in the background than all else besides. Mr. Meyer (page 41), seeing that there is so vast a wealth of natural rock at our disposal, rightly says a word or two in condemnation of that class of rockwork composed of stones and cement, and whose lines of stratification are but the work of the mason's trowel. To quote the author's own words: "This method of rock-building, in my opinion, is a thing to be avoided. It is monotonous in effect, unpractical to the highest degree, for none of the choicer alpine plants can grow in rocks so constructed, and finally it is extremely ugly." Words more true or sweeping in their condemnation could scarcely be conceived; and having had in the past to deal with examples of the kind referred to, and knowing of the harsh, unsympathetic and impervious nature of these so-called "rocks," I can endorse the denunciation of them to the full. Moreover, they are usually out of touch with the soil, while the cranny, crevice or fissure, in which so many of the best alpine plants delight, is in such artificial erections unknown.

Wall gardening, too, in its many phases is amply dealt with, both by illustrations and text, and the same may be said of the bog garden and water garden in their many and varying aspects. A point of importance and utility to the general reader is the near association of illustration and text, what to do and what not to do in the planting and arranging of the subjects receiving attention as the work proceeds. The book contains a rather full list of alpine and other plants suited to rock and wall gardening, and as these are divided into the four main seasons of the year, it should be helpful to many.

Some ten or a dozen pages are devoted to water gardens, the book concluding with some chapters on the "Heath Garden," Mr. W. Dallimore of Kew Gardens discoursing upon this subject with his known ability and authority. The illustrations throughout the book are excellent, those of the Heath Garden and its environments having a delightfully fascinating and picturesque appearance.—E. H. Jenkins.

Miss Willmott's forthcoming book on Roses.—Messrs. Henry Sotheran and Co., booksellers, 37, Piccadilly, London, have pleasure in announcing that, after many years of expectation, and of delay due to unforeseen causes, Miss Willmott's great work on "The Roses of the Old and New Worlds," beautifully illustrated with coloured plates and other illustrations from drawings by Alfred Parsons, A.R.A., is now on the eve of publication. The work will contain 129 coloured plates, in addition to 56 drawings of fruits in black and white, with corresponding letterpress, giving the scientific description in Latin and English, the full synonymy and details of information relating to each Rose. In addition there will also be an illustrated glossary and index. The book will give an account, with illustrations, of the most distinct and interesting species of the Roses of the Old and New Worlds; some natural hybrids, and a few first crosses and old garden Roses necessary to the complete treatment of the subject. The drawings made by Mr. Alfred Parsons, the well-known Associate of the Royal Academy, principally from specimens grown at Warley and Tresserve, are indeed artistic and faithful delineations of our national flower, while the reproductions in colour fac-simile, by W. Griggs, embrace all the latest developments of the art of colour printing, the minutest details of the artist being rendered with a fidelity that will not fail to please subscribers to the work. The edition will be strictly limited to 1,000 copies, which number, owing to the importance and interest in the subject, will, it is anticipated, be found insufficient to supply the demand; hence Messrs. Sotheran feel compelled to ask intending subscribers to send in their names as early as possible. Miss Ellen Willmott (Fellow of the Linnæan Society) has been assisted by John Gilbert Baker (late Keeper of the Royal Herbarium at Kew), H. Nicholas Ellacombe (Honorary Canon of Bristol) and the Rev. Charles Wolley-Dod of Edge. The work has been revised by Professor Sargent (of the Arnold Arboretum, Harvard University) and Colonel Prain (Director of the Royal Gardens, Kew). The subscription price is £1 1s. net per part. Orders can only be received for the complete work.

*"Rock and Water Gardens." Their Making and ing, with chapters on Wall and Heath Gardening, e late F. W. Meyer. Edited by E. T. Cook. Price 6s. *Country Life* Library, 20, Tavistock Street, Covent n, London, W.C., and Messrs. George Newnes, ed, Southampton Street, Strand, W.C

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

St. Brigid Anemones (*B. H.*).—The tubers are obviously growing in unsuitable soil, and in not a few districts if left in the ground they deteriorate; hence the better way would be to lift them each year, say, in the early part of July, place in unlidded boxes of dry soil and, having given them a three months' rest, replant either in a fresh position or in freshly moved and recently enriched soils. Other tuberous-rooted Anemones behave in like manner as, *e.g.*, A. fulgens, and a similar treatment should be meted out to these as to the others.

Delphiniums going wrong (*C. L. Plumptree*).—The plants, from your description, would appear to be attacked either by wireworms or millipedes, the former the more likely, as the latter prefer fruits such as the Strawberry. The wireworm, however, is most destructive to the Larkspurs, and will bore through the young stems or shoots in various directions and so bring about the ruin of the plants. If these are the cause of the trouble, some Potatoes or Carrots inserted near or around the clumps of Delphiniums would attract the pest and incidentally form a trap whereby they may be caught. As this reply is to some extent conjectural, it would have been better had a specimen of the failing plant or a portion thereof containing the pest been sent for our inspection.

Eighteen early-flowering Chrysanthemums (*Bon Accord*).—We doubt whether we can mention the names of eighteen good early kinds to flower before the end of September so far north as Aberdeen. Try the following: Claret, Chatillon (orange and ochre yellow), Carmelite (golden yellow), Mme. Marie Massé (lilac mauve), Crimson Marie Massé, Horace Martin (yellow), Louis Lemaire (yellow, shaded orange), M. Gustav Grunerwald (white, shaded pink), Nina Blick (scarlet red), Norbet Puvrez (golden salmon), Rosie (terra-cotta bronze), Roi des Blancs (pure white), The Sparkler (crimson-scarlet), Wells's Scarlet, White Massé, Blush Beauty, Goacher's Crimson and Early Beauty (pale mauve).

Daffodils and Tulips (*Miss Fairbridge*).—Neither of these would flower in the year following the forcing, for the simple reason that the bulbs having been forced

to flower at an early season, and for the purpose subjected to alien conditions of treatment, would be unable to perfect their growth in a natural manner. On the other hand, frame grown and flowered pots of these plants might reasonably be expected to flower well the second season, more particularly the Daffodils if well cared for meanwhile. In their case it would be better to plunge the pots in the open till the middle of February; then draft them into a cold frame and, treating them well, allow them to flower in these or similar circumstances. The Tulips might be treated in like manner, except that they will benefit by being shaken out of the soil at the end of July and given a six weeks' rest before repotting them. Bulbous plants usually take two or three years before reaching flowering size after having been forced, and some of them—the Hyacinth, for example, which deteriorates in most English soils—are not worth the time or trouble.

THE GREENHOUSE.

Utilising greenhouses (*Plodder*).—If you were unable to obtain for your bedding plants, Tomatoes and Chrysanthemums from your six large greenhouses a satisfactory return in sale prices, that may have been due either to indifferent quality or, assuming the quality was good, to bad markets. Over both these things it is impossible for anyone to give an opinion without seeing the things produced or having some knowledge of market conditions. Thus in your district many others, and perhaps those having lifelong experience in market-growing, may be producing the same things, the market being flooded. That is just now a common condition of things, because no sooner is one grower seen to be doing pretty well, than half-a-dozen others put up glass houses and try to do the same, so that he supply becomes excessive. In relation to bedding plants, there is not now the same large demand for them that there was some years ago. So many persons now fill their gardens with good hardy perennials or annuals, as, when we have wet seasons such as was that of last year, then tender bedding plants give poor effects and produce much disappointment. With reference to Tomatoes, they are so prolific under glass that enormous quantities are produced, and the grower is fortunate if he gets 1d. per pound, as good fruits are commonly retailed at 2d. to 3d. per pound; hence the grower's return must be small. Just now many who have been growing similar products to yours have turned their attention to perpetual-blooming Carnations, and have filled their houses with them. But to start these needs capital to purchase plants of numerous good varieties in quantity, and especially knowledge and experience how to grow them. Others have converted their houses from flowers, Vines and Tomatoes into the production of Peaches and Nectarines as being the best paying fruits. No one could give you any estimate as to the numbers or values of plants or Tomatoes or Chrysanthemums you should produce in your houses. All depends on the quality produced and the nature of the market where disposed of.

Names of and information about Azaleas (*Miss C. C.*).—1, Mme. Joseph Vervaene; 2, Simon Mardner; 3, may be Dame Malaine; 4, Konigin der Weissen. Apollo is one of the best of the scarlets, and so is Spitfire, while the same may be said of Cocarde Orange. Between the three it is a matter of taste. The shrub that flowers before the leaves appear is the Cornelian Cherry (Cornus Mas). As you say the leaves are variegated, it is the variety variegata. The other specimen referred to by you as a herbaceous plant is in reality an evergreen shrub belonging to the order Ericaceæ. Its name is Gaultheria Shallon.

Plants for conservatory (*W. H. S.*).—Except for the fact that the roof is slated, you do not say anything as to the amount of light the plants will get. This is the greatest essential to the successful culture of plants, and as it would scarcely be termed a conservatory unless they could obtain a reasonable amount of light, we conclude that the sides are of glass. For such a structure you must depend principally upon foliage plants, as very few flowers would succeed therein. The more vigorous varieties of hardy Ferns can be recommended, as they might be plunged out in a bed of leaf-mould or Cocoanut refuse during the winter, and then in spring, if cleaned and taken into the conservatory, will push up their young fronds unchecked. Of hardy evergreen shrubs, some of the choicer forms of Aucuba would be useful. These would also need plunging during the winter, otherwise you would doubtless find them in a sorry plight in the spring. Bulbs such as Hyacinths, Tulips, Narcissi, &c., if potted in September or October, may be taken indoors in the spring, when their flowers will develop in the conservatory. Dwarf Lilacs, hardy Azaleas and similar subjects will pass the winter outside and flower later on under glass. It would be useless to attempt to flower Delphiniums under such conditions, as they need plenty of light and air combined with a liberal root-run.

FRUIT GARDEN.

Peach leaves for inspection (*Colonel T. W. B.*).—The Peach shoots are attacked by the silver leaf disease, for which at present we know no cure. All such shoots fail to bear fruit, and should be completely removed, cutting them out below the spot where the wood about the middle shows brown. The disease appears to be due to the fungus Stereum purpureum, which gains entrance into the shoots by way of a wound.

Muscat Vines showing tendril-like bunches instead of perfectly formed bunches (*A. E.*). This is not an infrequent occurrence, and happens more frequently in our experience on Vines in vigorous health than it does on weakly ones. The cause of it, we think, is due to the imperfect formation of the fruit-buds in autumn. Perhaps these particular shoots were overshadowed with foliage and, consequently, the fruit-buds not so well developed and ripened as they might be.

MISCELLANEOUS.

Wall trees injured by dogs (*Rusticus*).—The injured part is best left without dressing of any kind. If the injury is not too serious and the tree is in vigorous health, the bark from the sides of the injured part will grow over the wound and cover it. If the wound is at all jagged, you had better cut the jagged part away with a sharp knife, leaving the sides of the wound smooth and, therefore, easier for the bark to cover. The best wash we know of for aphis and scale insects on the Rose is the following: Soft soap, ½lb.; quassia, 1lb.; water, 10 gallons, well mixed together. The best and cheapest spray for green fly on fruit trees is Tobacco powder, 3lb.; soft soap, ½lb.; water, 10 gallons. Infuse the Tobacco powder in water for six hours, then strain off and infuse again. Add the Tobacco extract to the dissolved soap and water. Less may be made, still using the same proportions. Apply for aphis and Apple sucker just after the buds have burst; for thrips in May and June. It may be used at any time, even on opened blossoms. It must be sprayed on the trees very lightly. The best Cucumber for the purpose you mention we think is Sutton's Everyday.

Organising a gardeners' association (*Newbury*). Presumably you desire to organise a society which shall be for gardeners specially, and for purposes of mutual improvement and social intercourse. Such societies, as probably you are aware, are very plentiful now; indeed, we find them in almost every locality where gardeners are in considerable numbers. Your first course, either acting alone or, better still, in conjunction with one or two others, is to get a brief circular letter of invitation sent to all the gardeners you may know within five miles of your centre, inviting them to attend a meeting on some suitable evening in a room sufficiently large to hold them in the most central position. When gathered, get a chairman appointed, then address those present stating your wishes and how it is proposed to shape them into action. Specify the objects in view—mutual improvement in gardening knowledge and in little occasional competitions at the meetings, also by the aid of books and papers to encourage reading, and, not least important, to obtain papers from members and lectures on general horticulture from persons outside your society, and especially promote discussions on set subjects or in asking questions on paper on any gardening subject the enquirer may wish to be advised upon. The yearly subscription may range from 2s. 6d. to 5s., and if some honorary members can be obtained to support the society with larger subscriptions, so much the better. Funds are always needed to pay printing, rent and other inevitable expenses. If those present at the meeting agree to form a society, let them at once agree to form themselves into a general meeting, elect the president, vice-president, treasurer and secretary, also a committee of twelve persons; also determine what the yearly payment shall be. The secretary should write to another society—that of Reading, for instance—for a copy of rules and regulations. Let the committee draw up its own from that, and then it will be at once established.

Names of plants.—*W. P. Wood.*—1, Saxifraga palmata variety; 2, S. cæspitosa; 3, S. seedling, cannot name; 4, S. hypnoides; 5, Ercilla volubilis.——*W. G.*—1, Photinia serrulata; 2, Staphylea colchica; 3, Cardamine pratense var. flore-pleno.——*S. K. L.*—A good specimen of Maréchal Niel.——*Rex.*—1, Lonicera tatarica splendens; 2, Erinus alpinus.——*J. H.*—1, Impatiens Sultanii; 2, Maranta bicolor; 3, Maxillaria species, send in flower.——*Winton.*—1, Euphorbia amygdaloides; 2, E. Wulfenii.——*M. Binns.*—1, Acer palmatum variety; 2, Celsia Arcturus.——*Dolphin.*—Artemisia maritima, Arenaria peploides, Cochlearia officinalis, Atriplex portulacoides, Plantago maritima and Suæda fruticosa.——*T. W. C.*—Lithospermum purpureo-cæruleum.——*M. F.*—Asphodeline lutea.——*Glyn-y-mel.*—Camassia esculenta.——*Constant Reader.*—1, Ceanothus veitchianus; Thermopsis montana; 3, Prunus Avium.——*A. S.*—1, Saxifraga granulata fl.-pl.; 2, Pyrus lobata; 3, Cra-Crus-galli.——*E. E. B.*—Geum montanum. 1, Sa muscoides; 2, S. cæspitosa; 3, S. c. variety.——*Ryder.*—Phœnix canariensis; Chamærops humilis. in sheltered, sunny spots in South-west England. leaves and keep crown dry during winter.——*T. R.*—1, Polemonium reptans; 2, Veronica cupr 3, Phlox reptans; 4, P. Stellaria lilacina; 5, Sa muscoides Rhei; 6, S. cæspitosa; 7, S. c. variet Acantholimon species (no flowers); 9, Potentilla spl 10, Lathyrus species (no flowers); 11, Veronica re 12, Dieffenbachia nobilis.

SOCIETIES.

THE ROYAL GARDENERS' ORPHAN FU

THE annual festival in connection with this praisew fund was held at the Hotel Cecil, Strand, London, on the 26th ult.. Sir Jeremiah Colman, Bart., pres Notwithstanding the fact that the festival had postponed a week, there was a large attendance. As the room and tables were decorated in a most deli manner, through the kindness of Messrs. Veitch, ford, Felton, Barr, Low and others, the large specimens of the pink single Rose proving most deli under artificial light. After the usual loyal had been given, the chairman proposed "The Gardeners' Orphan Fund." In doing so, he that as far as possible he would avoid facts figures, as he did not think these were quite desirable after-dinner speech. However, he ought as chai to tell them that there were at present 127 chi receiving the full benefits of the fund, and during the year £1,716 had been expended for the benefit o orphans. He thought this proved that the fund doing a lot of good. There was, however, one other that it was necessary to prove, and that was that for whom the fund existed were worthy of their help thought they would all agree that they were. No sc had advanced more during recent years than garde and with the advancement of the craft it became nece that the gardener should also advance in wisdom. gardener of to-day, he thought, was a thoroughly u date man and accommodated himself to his emplo wishes. He knew of no better enjoyment than derived from a well-kept garden, and this enjoyme course, depended largely upon the gardener. He tho however, that gardeners themselves ought to show a more interest in, and give a little more assistance to fund than they do at present.

Mr. Edward Sherwood, the treasurer, in responding the fund was badly in need of money, as receipts d the past year, for the first time in its history, had not sufficient to meet the expenditure. There were fi orphans, whose circumstances had been investigated, awaiting election. They had received by bequest the late Baron Schroeder £500, which would dou be invested and the interest used in a permanent ma He referred to a sad case at Chertsey, where the wife gardener gave birth to a child one day, the father die next, and the mother the following day, thus leaving children totally unprovided for, the eldest of whom fourteen. Some of these the fund would assist, and should bring home to gardeners the necessity for sup ing it. Each might subscribe at least one penny month, and this would help a great deal. The comm wished the fund to be as national as possible.

Mr. Charles Armstrong, in proposing "Gardeners Gardening," said that if he complied fully with his ins tions to be brief, he should merely quote Sir Christo Wren's epitaph, "Look around." Nothing empha the important work of gardeners more strongly tha many beautiful flowers that surrounded them that eve The Temple Show, which had just closed, was looked throughout Europe as the finest in the world. Mr. J. Veitch, in responding, said he had the interests o fund very dearly at heart. He thought the Temple had been a splendid example of gardens and the wo gardeners, and he congratulated the chairman on the nificent group of home-grown Orchids which he had s there, and with which he had won the Sherwood Cup. said we must do our utmost to advance horticulture i future.

Mr. N. N. Sherwood proposed "The Visitors," and they were always welcome. They were asking them night to support the poor orphans through the fund he felt sure they would do all they could. Mr. Ebblewhite, Clerk of the Worshipful Company of Garde suitably replied.

Mr. Brian Wynne, the secretary, then read out th of subscriptions, among which were: The chairma Jeremiah Colman, Bart., £250; Messrs. N. N. Sher and Sons, £100; Mr. G. H. Cuthbert, £52 10s.; Mr. Le Sutton, £50; Sir Frank Crisp, £27 12s.; Mr. Ant Waterer, 25 guineas; and Mr. G. Reynolds, £27 6s. Covent Garden friends had eclipsed all previous effor contributing £211 18s. 6d., made up as follows: Engelmann's list, £105; Mr. H. L. Wright, £71 8s. and Mr. Poupart, £35 10s. The total subscription ceived amounted to £1,134, the second highest received.

Mr. H. B. May, in proposing the health of the man, referred to his kindness in presiding that eve No amateur had done more for horticulture than him hoped in the future they would be able to establi emergency fund to meet those cases which did not come within their scope at present. The chairman su replied.

THE GARDEN.

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CONTENTS.

FLOWERS, FRUITS AND VEGETABLES FOR EXHIBITION 285

NOTES OF THE WEEK
Forthcoming events 286
Edible and poisonous fungi 286
New garden plants of 1909 286
Hanley Horticultural Fete 286
Horticulture in Ireland 286

CORRESPONDENCE
Trees for towns .. 286
The Plane tree and disease 287

GARDENING OF THE WEEK
For the South and South Midlands.. 287
For the North and North Midlands.. 287

John Parkinson .. 288

KITCHEN GARDEN
Vegetable notes .. 289
Herbaceous Calceolarias 289

ROSE GARDEN
Seasonable work for June 289

Flowering plants for indoor decoration .. 290

TREES AND SHRUBS
Hardy Rhododendrons 291
The new Cytisus Dallimorei 291

GARDENING FOR BEGINNERS
Garden work week by week 292
Hints on disbudding Roses 292
A new race of Stocks 293
Surplus bedding plants 293

THE TOWN GARDEN.. 293

Tulips at the Temple Show 294

FRUIT GARDEN
Layering Strawberries for forcing 294

Some early Roses .. 294

ANSWERS TO CORRESPONDENTS
Flower garden .. 295
Trees and shrubs . 295
Greenhouse 295
Kitchen garden .. 296
Miscellaneous .. 296

ILLUSTRATIONS.

Frontispiece of Parkinson's "Theatrum Botanicum" 288
Herbaceous Calceolarias at North Collingham, Notts 289
Saxifraga and Schizanthus used for house decoration 290
The new hybrid Cytisus Dallimorei growing at Kew 291
How to disbud Roses 292
A plant of Stock Admiration 293

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

FLOWERS, FRUITS AND VEGETABLES FOR EXHIBITION.

Hints on Gathering, Packing and Transmission.

OLD exhibitors can trace many of their early failures to hurried gathering and bad packing of their produce, items of no small importance; for, given several exhibits about equal in quality, freshness and freedom from injury must be the deciding factors.

Flowers are gathered at their best early in the morning. In gathering them remember that development will continue in water, and select those that have nearly, but not quite, reached their best; the flower which is perfect one morning will probably have passed its best by eleven o'clock next day. Select them of exhibition size, perfect in form and of the correct colour. For bunches and decoration generally, cut them with long stems and put the stems in water as quickly as possible. Leave the flowers loose; never tie or crowd them, as it is important that any dew or moisture on the blooms shall have dried before they are packed. Roses, Dahlias and others that are shown in boxes with cups can be set up at once, but be careful to give them sufficient water without overfilling the cups. Place all in a cool, darkened room and away from injurious draughts until it is necessary to pack them.

Fruits must, if possible, be quite dry when gathered, and should be as ripe as possible consistent with safe packing. Nearly all are shown with the stems on to the natural joint, exceptions being Peaches and Nectarines. The fruits should be handled by the stems without touching the berry when this is possible. Points of importance are exhibition size without blemish, perfect shape and good colour. In order to avoid confusion, no exhibit should be packed till all are gathered, when each can be carefully checked by the schedule.

The gathering and selection of vegetables take a considerable time, and it is often advisable to prepare such things as Beet, Carrots, Onions and Potatoes two days previous to the show; but those that are shown with all or part of the foliage on, such as Cabbages, Celery, Lettuce and Leeks, are best left as long as possible. Parsnips, too, quickly deteriorate when raised. Use a fork to lift all root crops, and avoid scratching the skins or breaking the tap roots. Any rootlets other than the tap root must be trimmed off neatly with a sharp knife. Expose Potatoes to sun and air for half-an-hour to harden the skins before washing, and use a sponge, not a brush, for washing. Rinse well in two lots of water and lay the roots out on clean mats to dry. Turn them so that drying may be thorough; then wrap the roots separately in paper and keep air and light from them till packing commences.

Points to remember when gathering vegetables are to match the correct numbers of each variety as evenly as possible. Large size must always be accompanied by high quality, perfect shape and good colour, otherwise it must give way to an exhibit of medium size possessing these qualities. Gather Beans and Peas with stems on early in the morning; they then keep much fresher. French and Runner Beans must be young, long and straight; Broad Beans and Peas with large, handsome pods of dark green colour and yielding well. Handle Peas by the stem in order that the bloom may remain intact. Preserve the rootlets of Leeks, and do not peel Onions, but just remove any loose, unsightly skin. Always gather plenty of the finest Parsley in which to set your exhibits.

Packing Flowers.—Exhibition blooms ready set up will only need the covers and labels placed in position. Other flowers are best packed in strong boxes of unpainted wood, which should have some holes made for ventilation, or in closely made wicker baskets or hampers. Have plenty of clean white tissue paper handy when packing, and if the bunches can be rolled up in paper without injury, so much the better; if not, place some above and beneath each bunch. It not only prevents movement, but without it the blooms of one bunch are liable to hang into those of others, causing a loss of petals in unpacking. The packing must be firm enough to prevent movement without cramping or cramming the flowers. Check each exhibit by the schedule as it is packed, noting that it contains the correct number of stems. If spare blooms are packed, tie the stems to distinguish them. Place labels with names of varieties, their division and class with each exhibit. Have your name and address on the inside of the box, and explicit

directions for delivery to yourself or the person acting for you at the show on the outside, together with a large label inscribed, "This side up, with care." These general remarks regarding labels also apply to

Fruits, for the packing of which a number of small flat boxes are required, one for each variety. Such fruits as Apples, Pears, Plums and Peaches are each wrapped in tissue paper and packed in a single layer with cotton-wool beneath, between and above. Cotton-wool must not, however, be used for small fruits, as it clings to the stems. Such as Cherries, Currants, Gooseberries, Raspberries and Strawberries are packed in leaves, young Strawberry leaves being preferable to any others. A layer of leaves should first cover the bottom of the box, each berry or bunch of Currants being then taken by the stem, placed in a leaf and packed carefully in layers in the box, sufficient leaves being placed on top to prevent movement. Time is saved at the show if the name of the contents is written on each box, and all should be tied with string, not nailed, as injury may be caused in drawing nails. A number of these little boxes can be packed in a large box or hamper for transmission. Grapes, being set up in special boxes, need no comment. Melons are packed similar to Peaches, but in a deep box, and in this case the best material for packing is fine wood-wool, plenty of which should also be used for packing

Vegetables.—Small stout boxes are again of value for packing separately Beans, Peas, Cucumbers and Tomatoes. These boxes are in turn packed in the bottom of the large box or hamper; on them the roots should be packed in layers, each root being wrapped in clean paper, and sufficient packing material must be used to prevent them from rubbing together. Place a sheet of paper over these, and on this pack Celery, Cabbages, Cauliflowers and Lettuce in the upper part of the box. These are not wrapped up, nor is wood-wool used about them, but the Parsley in tied bunches is useful between them to prevent them from moving in transit. Lay a sheet of paper over all, and on this sufficient packing material to make it full and firm before placing on the lid. If not personally staging your exhibits, place a card in each box stating all the contents of the box with any special or necessary instructions.

Kingsclere, Berks. H. TOMALIN.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

June 13.—United Horticultural Benefit and Provident Society's Committee Meeting.

June 15.—York Gala and Floral Fete (three days).

British Forestry Museum at Kew.—On the occasion of a recent visit to Kew, we were pleased to note that Cambridge Cottage, the residence of the late Duke of Cambridge, had been opened to the public in the form of a museum. The other museums at Kew are well known to visitors by reason of their rich collections of economic products from all parts of the world. The new museum differs, however, from them by being devoted entirely to British forestry. The building consists of two floors, the lower one only at present being open. On this floor are three rooms and a corridor. One room is filled with cases containing a scientifically arranged collection of hand specimens of wood, photographs of trees, fruits, seeds, &c., all of which are of great interest. The other rooms contain specimens of timber, in the form of sections of trunks and boards, also mounted specimens of the foliage, flowers and fruit of various trees. Some of the planks and boards appear to have been cut from trees which had been grown as ornamental specimens; for purposes of comparison we would suggest that planks from forest-grown trees of the same kinds should also be shown. We were informed that the upper floor is to be devoted to diseases and the application of home-grown timber. The disease question we think an admirable idea, for a representative collection of material, easy of access, would be of inestimable advantage to all who are interested in arboriculture or sylviculture. The museum stands in a garden of its own within a short distance and to the left of the main entrance to the gardens.

Edible and poisonous fungi.—Under this title the Board of Agriculture has published a most excellent little book that fills a long-felt want. Coloured plates and descriptions of twenty-five edible and poisonous fungi are given, these being those that are met with most frequently in this country. As is pointed out in the preface, there are many kinds of fungi in this country which are usually supposed to be poisonous, but which, in reality, are equally as valuable as, if not more so than, the ordinary Mushroom. Of course, it is necessary that these should be unmistakably recognised before they are eaten, and this recognition is rendered easy by the coloured plates and descriptions in the book. These have been prepared by Mr. G. Massee of Kew, with the assistance of Miss Ivy Massee. The price of the book is one shilling, and copies can be obtained from the Secretary, Board of Agriculture and Fisheries, Whitehall Place, London, S.W.

New garden plants of 1909.—Appendix III. of the "Kew Bulletin" is devoted to descriptions of new plants which have appeared in English and foreign botanical publications during 1909. In addition to species and well-marked varieties, hybrids, whether introduced or of garden origin, have been included where they have been described with formal botanical names. Mere cultural forms of well-known garden plants are omitted. In a professedly complete list of new garden plants we should have thought that the many excellent hybrids not described with formal botanical names would have found a place, as they are equally as valuable, and in many instances more so, as garden plants. However, the list is a useful one for reference, and is published at the low price of twopence by Messrs. Wyman and Sons, Limited, Fetter Lane, E.C.

Hanley Horticultural Fete.—The County Borough of Hanley Horticultural Fete is to be held in Hanley Park on Wednesday and Thursday, July 6 and 7, when it is hoped there will be an exceedingly good display of flowers, fruit and vegetables. We have just received a copy of the schedule, and, as usual, find there are classes to suit all kinds of exhibitors, a number of valuable prizes being offered for such things as pot plants, Roses, Sweet Peas and various kinds of fruits and vegetables. Copies of this schedule can be obtained from the secretary, Mr. William Poulson, Town Hall, Hanley, Staffordshire.

Bequest to the Gardeners' Ro Benevolent Institution.—As mentione our report of the annual festival of the R Gardeners' Orphan Fund which appeared last w that excellent fund received a legacy of £500 the late Baron Schröder. We are now infor that £1,000 has been bequeathed to the Garde Royal Benevolent Institution. Both institut are doing exceedingly good work in allevia distress among aged or infirm gardeners and orphans of gardeners, and it is characteristic of late Baron Schröder that he should have remembe them in this way,

French Garden at Warley Pa Birmingham.—We are informed that French garden exhibited by Messrs. Sutton and S in Warley Park, Birmingham, during Whitsun w was inspected by no fewer than 140,000 visitors

Horticulture in Ireland.—During rec years horticulture in all its branches has ma much headway in Ireland, and it is pleasant note that horticultural societies are on the increa We have just received a copy of the schedule n being issued by the Kingstown Horticultu Society, and draw our Irish readers' attention it. The annual exhibition is to be held on Wedne day, August 17, when there ought to be a goo display of flowers, fruits and vegetables. Copi of the schedule can be obtained from the secretar Mr. R. Macdonald, Municipal Technical Scho Kingstown.

Purley Rose Show.—Among the vario Rose exhibitions held around London, that arrang by the Purley Rose and Horticultural Society tak a front position. This year it is to be held Saturday, July 9, in the grounds of Upper Woo cote, Foxley Lane, Purley. The schedule contai particulars of a number of open classes for nurser men and amateurs, as well as many for local re dents. In addition, we notice that there is mu interesting information given on various phas of gardening. Copies of the schedule can obtained from Mr. H. E. Molyneux, Brantwoo Riddlesdown Road, Purley; price 3d.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Eucalyptus Gunnii in Edinburgh. Your correspondent Mr. Lloyd (page 250) will be i terested to hear that the Brightlingsea Eucalypt Gunnii has succeeded admirably as far North Edinburgh. In 1899 Mr. Bateman kindly se me some seeds that were ripened at Brightlingse They germinated freely. Two of the plants we kept, the rest distributed. Those kept are no over 20 feet high and 15 feet through, the girt at 3 feet from the ground being 1 foot 9 inche Two years ago a good many seedlings were raise from these two trees. The plants were apparentl strong and vigorous, and, being ripened so f North, we expected a hardier race; however, la winter killed all the young ones completely an the old trees are severely hit, but will soon recov themselves.—R. LINDSAY, *Kaimes Lodge, Mi lothian.*

Trees for towns.—Reverting to a note o the above in a recent number in connection wit the disease to which the Plane tree is subject, might be well to mention that the question of sele tion of suitable trees for different sites, so far size and habit of growth are concerned, is absolutel essential, so as to obviate the cutting, or, rathe mutilation, so often practised. It is extremel irritating to come in contact with this kind of thin so frequently when shapely specimens would b so much more acceptable. Trees so mutilate

eem to have a difficulty in struggling into decent afage. It would almost appear that the amount sap sent up was too much for the head, and many aves for a time are stunted and misshapen, pecially if a cold spell of weather prevails. In e smaller trees it is a little difficult to suggest ything better than the Bird Cherry, Mountain sh and Sophora japonica; but I think Gingko loba might be worth a trial. It is of rather slow owth, but makes a shapely tree, with handsome liage quite unique in outdoor vegetation, and m the texture of the leaf should be able to lapt itself to atmospheric conditions almost tter than most trees, and its upright growth nders it less susceptible than many to rough nds. Yet another tree growing in its native me to about the same height as the Gingko that ay presently find a place in our towns is Cornus acrophylla. Those already planted seem to be aking good headway and likely to grow into apely trees.—A. G. B.

The Plane tree and disease.—It is a gular coincidence that at the same time we ould read a grave diagnosis of the disease hich is said to affect the Plane tree (Glocoorium nervisequum) in one case, and a somewhat nervous" attack upon the tree as a town or reet tree in the other, although the attack seems be equally against it as a tree generally. In is locality what was possibly the disease referred was noticed on the foliage of a row of fine bust trees by the Thames side last summer, but us attributed to the ungeniality or coldness of e season. If, as is assumed generally, the comon Plane is orientalis, a native of the Levant, it ay not be a matter for surprise if its leaves should ffer from a cold, wet season. In his note on the ane tree disease, "A. G. B." does not say to hich species he refers, but doubtless it is to the mmon or Oriental variety. But while his note lates to the tree disease as such only, and not to y injurious effects it may have on man, there ems to be no connection between that disease d Lord Walsingham's attack on the Plane as a wn tree on the ground that its seed-vessels when llen or are broken up give off great quantities minute spicules or spines, which, floating in e air, are absorbed by human beings breathing ch air, and as a consequence serious outbreaks throat troubles and irritation, as well as abunnt colds and inflamed eyelids, result. Generlly, these charges against a noble tree, whether the town or the country, creates some alarm, so some surprise. Seeing how widely the ane has been planted in this country, the marvel that our medical men have not long since deimed against it, for the reasons above stated. rd Walsingham quotes his experience of these roat troubles at Cannes and one other individual nd in North Italy, and further quotes Dr. Henry having found on glycerine-coated glass slides idence of the existence of these minute spicules Kew and in London. Still, we have had such g experience of the Plane, especially in towns, d the Thames Embankment is an excellent ample, that it is remarkable no medical protest ainst planting it in towns has been heard. But atever may be the treatment of the Plane at nnes, most certainly in English towns, because the comparative narrowness of streets, the trees ve to be kept severely restricted in growth yearly; ce they have few opportunities to carry fruit. re, where the river-side trees grow luxuriantly r a frequently crowded promenade, the fruits in the winter and are at once swept up. All same, no complaint such as Lord Walsingham kes has yet been heard. It would be well to rn what borough or town gardeners have to say the matter.—A. D., *Kingston-on-Thames.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Kitchen Garden.

POTATOES.—Proceed with the earthing up as it becomes necessary. The growths ought not to be allowed to get too large before this operation is taken in hand, or they are liable to get knocked down and bruised. The soil should be worked with the hoe between the rows rather deeper than usual before commencing the earthing.

Asparagus.—New beds which were planted in April will require watering, should there be a spell of dry weather. The soil between the rows must be frequently stirred with the hoe to keep down the weeds and to aerate the soil. The growths will need some support to prevent the wind breaking them off. When these are well advanced, a light dressing of salt in showery weather is useful.

Tomatoes.—These may be planted out with safety. Various methods are adopted in outdoor culture. In any case too rich soil must be avoided and the roots restricted. A good plan is to make a border about 18 inches wide at the foot of a warm wall, and place slates or planks at the outside to restrict the roots.

Frames.

With the planting of all bedding material there are many frames at disposal. Some of these may be used to advantage for growing Cucumbers and Melons. Mix up a little heating material of stable litter and leaves and put in them. Place small mounds of soil on the bed, and put in the plants either singly or in pairs. They will require to be damped over with a fine rose or syringe two or three times daily. When the plants have rooted into the fresh soil, pinch them to induce them to break, and top-dress when necessary.

Flower Garden.

Polyanthus.—As soon as the seedlings are large enough they may be pricked out in frames, where they may be nursed for a time till large enough to take care of themselves outdoors.

Pinks.—A good batch of these useful plants should now be propagated. Pull off the side growths, and, beyond trimming the ragged ends and cutting off the basal leaves, no other preparation is necessary. Insert them thickly in pure sand in a cold frame. Keep the frame close and shaded, when rooting will soon commence. When well rooted the plants may be taken out and planted in nursery beds.

Rock Garden.

Much attention is necessary in this department with regard to weeding and the prevention of overcrowding. Many choice, slow-growing subjects are liable to become smothered by the coarser ones, and cutting away has to be done in many instances, however much one dislikes it. Cuttings of various plants should be taken to make a stock of plants for next seaaon. These include Phlox, Iberis, Dianthus, Helianthemums, Silene, Campanulas, Arenaria and Cheiranthus. A cold frame should be used for propagating, placing in the bottom 4 inches to 6 inches of sand. Insert the cuttings in this, water them, and keep the frame close and shaded. As soon as the cuttings have rooted, they should be potted into small pots. Seeds of such Primulas as sikkimensis, japonica, and Veitchii should be gathered as soon as they are ripe and sown.

E. C. Pooley.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

Celery.—The main crop of this important winter vegetable must now be planted. To ensure fine Celery the trenches must be prepared with great care and a substantial dressing of rich old manure given. Where labour and ground are abundant, the single-row trench is best, but usually two or three rows have to be grown together for the sake of economy. Whichever method is pursued, give the plants a space of 12 inches between. In lifting Celery plants the greatest care is necessary to ensure the roots receiving no check. Lift them with a good ball of earth attached and plant firmly in the trenches. Should the weather be at all dry and sunny, a thorough watering must be given immediately after planting, and some method of slightly shading the plants for a few days is very helpful, as it allows instant root action. A few Spruce branches thrown across the trenches will do admirably.

Potatoes.—Continue to earth up this crop, first removing all weeds and forking up the soil between the rows. A slight dressing of a good chemical manure before this takes place is beneficial, especially on poor ground. Soot is excellent for this crop and should be applied now.

Kidney Beans.—Another sowing should now be made, and as it is useless in our Northern gardens to sow later than the middle of June. the present breadth laid down should be ample for all requirements. A good strain of Canadian Wonder is still hard to beat.

Parsley.—A sowing made now will give good fresh leaves during late autumn. Sow thinly, and thin out rigorously when the seedlings are well up. For winter use a sowing should be made very shortly in a frame or in the open border, and transplanted to the frame when large enough to handle. The latter plan is more troublesome, but in the end gives the best results.

Lettuce.—Sow again according to requirements. If sown thinly and the seedlings are thinned out in good time, I think better results are had than by transplanting. A grand variety for present sowing is New York Giant.

Fruit Under Glass.

Vines.—Thinning of the later houses must now be pushed on and stopping of sublaterals attended to as necessary. After thinning is finished, a top-dressing of a reliable Vine manure is excellent. Slightly point it into the surface, and give a good watering to help dissolve it. If the roots are outside as well as inside, do not forget the outdoor border with the manure. Abundance of air must be given, and in the houses where the Grapes are ripening a chink should be left on even at night, unless when stormy.

Plants Under Glass.

Herbaceous Calceolarias.—Seeds should now be sown. Being very minute, they must be placed on a smooth and level surface. Use sweet leaf-mould three parts, loam two parts, and sand one and a-half parts. Pass through a quarter-inch riddle and give a surfacing of even finer soil. Do not cover the seeds. Press them gently into the surface and scatter a pinch of silver sand over them. It is best to water the pans an hour before sowing the seeds. Cover the pans with a sheet of glass and damp moss, and set in a cold frame. They generally germinate within a fortnight, and at the very first sign of life remove the moss.

C. Blair.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

JOHN PARKINSON.

His Life and Times.

ALTHOUGH the book-collector and the student of gardening history know the name of John Parkinson so well, because of the two great works which he published, it is really almost all that anyone knows about him. The scattered notices relating to his life are so few and so fragmentary that, beyond a few main facts of the barest description, we have nothing to guide us in picturing one who must have been a most remarkable man.

He was born in the year 1567, and was brought up to be an apothecary. As Lobel, who was botanist to King James I., and Johnson, who was the editor and enlarger of the second edition of the famous Gerard's "Herbal," both testify, he rose to great eminence in his profession, and was appointed apothecary to the same King James. Later on in his life, as a reward for the pains and skill which he showed in the publication of his "Theater of Plants" (or "Theatrum Botanicum," as it is more frequently styled), he was given by Charles I. the title of "Botanicus Regius Primarius."

He lived for many years in London, where he had a garden of his own. Before he settled down here he travelled; but as he became more famous in his profession he had little opportunity for paying even short visits in England. In his younger days he would have known Lobel and Gerard; then Thomas Johnson (mentioned above) and John Tradescant, gardener to Charles I.; possibly, too, Sir Hugh Platt, who had a garden in St. Martin's Lane, and who has been called "the most ingenious husbandman of the age he lived in"; and possibly Gervase Markham, a very voluminous writer on farming and gardening. He had many friends, who sent him plants and seeds, and with whom he corresponded. These are mentioned in scattered notices and allusions throughout his writings. He died between the years 1640 and 1656. There is a poor picture of him by Christopher Switzer in the "Paradisus," taken, as the inscription informs us, in his sixty-second year; but the best one is the small portrait by Marshall, which appears in the title-page of his "Theatrum," here reproduced.

He published in 1629 his "Paradisi in Sole Paradisus Terrestris," or, a garden of all sorts of pleasant flowers—this justly famous folio will form the subject of a second article, which will be published next week, so I will not allude to it any further now—and in 1640 his "Theatrum Botanicum," or "Theater of Plants," or an Herbal of a large extent. Previous to the reign of Elizabeth (1558) very little attention had been paid to either horticulture or botany. Plants were almost entirely valued and preserved on account of their real or supposed medicinal properties. There seems to have arisen about this period throughout Europe a desire for the improvement of the knowledge of plants and, as society was becoming more refined, a wish to have beautiful flowers in gardens for their own sake. These objects were helped by the travels of such men as Raleigh and Cavendish to Spanish America, by the voyages of Raymond and Lancaster (1591), by the establishment of the East India Company (1609) and, as a knowledge of plants is necessary for an enlightened system of horticulture, by the establishment of public botanic gardens at such centres as Bologna (1547), Zurich (1560), Paris (1570), Leyden (1577), Jena (1628) and Oxford (1632). From the commendatory letters appended to the "Theatrum" I cannot help feeling that both botanically and horticulturally there was some sort of reciprocal influence between this last establishment and Parkinson.

"Here's more than grows in the Botavian ground,
. . . . . .
Or vernant Oxford's Plat neere River's side;"
—JOHN HARMAN
(*Introductory letter in the "Theatrum"*).

The times, too, were such that old wives' fables and travellers' tales of marvels in the animal and vegetable world were not received with such cheerful and whole-hearted acceptance as they had been in the past. Although Parkinson still figures the Barnacle Goose among his "Marsh, Water and Sea Plants," he is careful to say that this "admirable tale of untruth . . . concerning the breeding of these Barnacles from shells growing on trees is utterly erroneous." Nor does he ascribe all the wonderful virtues to the Rue and Sage that seem to have been once attributed to them.

"Cur moriatur homo cui salvia crescit in horto?" "How can it happen," says one of the learned school of Salerno, "that a man who has Sage in his garden, yet ends by dying?" More rational ideas of medicine were taking root—even if al old ideas were hard to kill.

FRONTISPIECE OF PARKINSON'S "THEATRUM BOTANICUM."

The "Theatrum Botanicum."

When Johnson published his enlarged ed of Gerard's "Herbal" in 1633, with descrip of 2,850 plants and their medicinal uses, it considered a wonderful achievement. What the learned world of Europe have thought in 1640 Parkinson published the great work o life, his "Theatrum Botanicum," with very 3,800 kinds individually described, named, l historicalised and all their "virtues" given! It by far the most copious work that had appe in the English language, and it was enriched an entirely new set of "cuts," which had made in England. The delay in ma them was very likely one of the obst which prevented the earlier issue of book. Other causes doubtless had hel to hinder its presentation; but, a quaintly says in his letter to his read this delay only caused his "Physi Garden of Simples" to change its n but not its nature, to a Theater of Pla "yea rather it hath gained the m matter by the overture."

This work is intended to be a pur botanical and medical treatise, and such it will always have an histori interest, more especially since it h along with Gerard's "Herbal," be raised to "classical eminence in Engl botany" by the reference that John R the greatest English botanist of seventeenth century, has made re ence to it in his writings.

The whole vegetable kingdom divided up according to their kno or supposed qualities, or according the sort of places where they are to found; thus Class 1 is Plantæ odora sweet-smelling plants; Class 4, Sa fragæ, Saxifrages or break-stone plan Class 5, Vulnerariæ, Wound Herb Class 11, Legumina, Pulses; Class Paludosæ, aquaticæ, marinæ, musci, fungi, marsh, water and sea plan Mosses and Mushrooms; Class Exoticæ et peregrinæ, outlandish plan in all seventeen, with an appen or addenda.

In considering this classification, has to be admitted that, following, he has done, the plan adopted Dodoens, Gerard and Johnson, v little advance was shown in scient botany. It is strange that, as some Lobel's papers came into his ha after his death, he did not more nea adopt his (Lobel's) system. But it is.

The "Theatrum" contains a markably interesting frontispiece. A have already said, the small medall at the bottom, which pictures Parkin in a skull cap and ruffle and holding so thing very like a single Sunflower in his ha is the best presentment of the old man's featu that we have got. The corner-pieces, too, are of interest. They picture the four quarters the globe in the persons of four ladies. Eur is in a chariot drawn by a pair of horses and s rounded by suitable trees and flowers. In c formity with the spirit of the times, fruit ha prominent place in her surroundings. I thin can detect Grapes, Apples, Pears and Plu But flowers are not left out, and one is a Carnati "the pride of our English gardens," as Parkin says in the "Paradisus."

sia on a rhinoceros has a short skirt, and has her compartment the Vegetable Lamb, and a nt of Indian Corn! Surely this latter came n America. The tradition of the Vegetable mb is a similar one to that of the Barnacle se, and, like it, had its origin in an ignorant trying to put two and two together. The oduction of cotton, which travellers said grew plants, and the fact that it looked a little like l which grew on a sheep, were enough to account its rise.

frica is riding a zebra, and the Date Palm and Aloe are very prominent objects. The dried t of the former must have been a very welcome nge, and as some could be "pressed into cakes be kept," and "others will abide whole for a time and fit to be sent also into any farre ntry," must often have reached England.

merica is seated on a peculiar-looking kind of p with long ears. The vegetation that surnds her is rather that of the South than the th. There is a Cactus, a Passion Flower, a flower and a Pineapple.

he conventionally dressed figures of Adam and omon on either side of the title are doubtless nded to represent manual labour and braink. Altogether it is an excellent introduction the book, and one can only hope that the y of it on page 288 and these few words of lanation may lead some to a more detailed uaintance of a very instructive and interesting work.

JOSEPH JACOB.

THE KITCHEN GARDEN.

VEGETABLE NOTES.

PLANTING BRUSSELS SPROUTS.—There is no more popular autumn and winter vegetable than this, and no efforts ought to be spared to grow the crop to perfection. This is not a difficult thing to achieve, but it is ntial that certain principles shall always be t in view. One of the chief points to remember hat Brussels Sprouts demand a long season of wth, and it is desirable that the earliest plants into their permanent positions during the ent month, and not wait until the bulk of the ter greens are put out in July and August. It ecessary, too, that a deep, thoroughly cultivated generously manured soil be provided, since results are never fully satisfactory in a badly ked and poor medium. The distance between lines and the plants in them must, of course, nd largely upon the variety grown; those of pact habit which usually produce small, hard ons should be 2 feet asunder in all directions, e vigorous sorts 2½ feet both in and between rows, and the big growers not less than 3 feet t, and in each instance healthy plants in good will completely cover the quarter before they h. Firm planting should always be the rule, it becomes absolutely imperative in light, y soils.

ATER AND MULCH PEAS.—It is seldom that teurs can devote very much space to the indual crops, and it is, therefore, most desirable everything shall be done to favour satisry results with all the plants grown. In the of Peas, of which few of us are so fortunately ted that we can grow too many, watering and ng through a mulching of short, sweet manure a wonderful effect upon both the quality and tity of the crop. Immediately the plants oach full bearing they should be heavily red if the weather is dry, and later, when the ce has dried sufficiently to permit of it, the h hoe should be run through, and the task finished by spreading down a mulching. If manure cannot be spared, use grass cuttings, and if these are not available, then hoe more frequently than ever to keep the top in a constant state of dust. Needless to say, all pods must be gathered directly they are ready, or the plants will soon commence to go off.

OUTDOOR TOMATOES.—All plants should be placed out of doors as soon as possible now, and, provided that they have been well grown and are, as a consequence of intelligent management, carrying a cluster of fruits and another of flowers, success is practically assured even in the worst of our variable summers. In no circumstances must the soil be made rich, and it should be well firmed about the roots, as Tomatoes are especially prone to make leaves at the expense of blossoms, and comparatively poor soil, with firm planting, discourages grossness. Each plant should be restricted to one stem by the persistent removal of the shoots which come in the leaf-axils, and when the plants are in good crop they ought to be helped by generous and judicious watering and feeding. Any burnt refuse that may be at command can be advantageously incorporated with the soil in which Tomatoes are to be grown.

LEEKS FOR HOME USE.—Many people still remain under the erroneous impression that it is impossible to grow good Leeks unless trenches are cut and manured in the same manner as for Celery; but this is only required when the crop is wanted for exhibition. For home consumption, in friable soil in good heart, it amply suffices to make a hole with a blunt-ended dibber, drop the seedlings in, fill with water and leave the plants to grow. Later, more water will probably have to be given, and a little soil may be beneficially drawn up to the stems.

HOEING.—The Dutch hoe should be always at work in some part or other of the vegetable garden from now onwards until the late autumn and winter. The maintenance of a dusty condition encourages the free admission of water, followed by the health-giving and growth-encouraging fresh air, while at the same time it prevents the waste of nutrient properties by evaporation.

H. J.

HERBACEOUS CALCEOLARIAS.

THE accompanying illustration shows a well-grown group of these old-fashioned plants in the greenhouse of Dr. Frank Broadbent, The Old Hall, North Collingham, Notts, the strain being that of Messrs. Pennell and Sons of Lincoln. Unfortunately, the plants were arranged too closely together when the photograph was taken to allow their individual beauty to be shown; but the illustration tends to show what a mass of flowers can be secured from a few well-grown plants.

HERBACEOUS CALCEOLARIAS AS GROWN BY DR. BROADBENT, NORTH COLLINGHAM, NOTTS.

THE ROSE GARDEN.

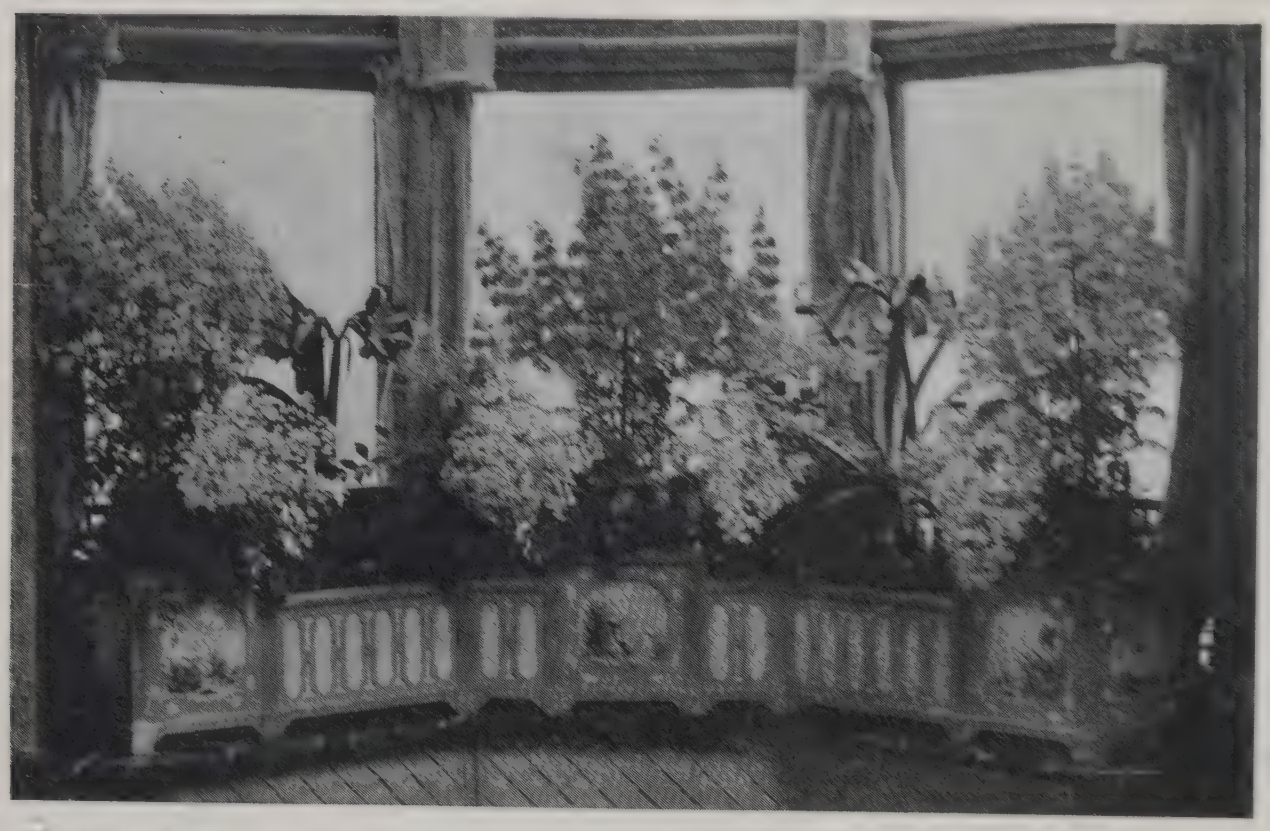
SEASONABLE WORK FOR JUNE.

JUNE is the proverbial month of Roses, and if we do not get such a quantity as in July, there is much work to be done now if we are to realise the best our plants are capable of producing. Hand-picking of maggot and grub must not be neglected, for if we do not stop these at once, the mischief is irreparable so far as that break of growth is concerned. Then the syringe must be used freely, or we shall be overrun with green fly; in fact, all insect enemies must be fought most assiduously this month more than in any other.

Superfluous growths need pinching out, while there is much to do among standards and dwarfs that were budded last year, especially among the standards, which are certain to be throwing a large number of suckers now. They are easy to remove while soft and young, and we cannot afford to allow them to draw on the sap we wish the Rose itself to enjoy. With maiden dwarfs sticks will be necessary, or many shoots may be lost through wind and heavy rains breaking them. One cannot commence tying these to the sticks too early. If delayed, they are far more apt to snap than when secured very young. Nor should they be tied tightly, or as they grow they will snap themselves. After tying the dwarf bushes it is a good plan to draw a little of the surrounding soil around their bases, just covering the junction

of Rose and stock. This helps the Rose to swell more uniformly with the stock, and is also a considerable support. Give a little thought to the normal height of each variety before applying the sticks. It looks so absurd to see a variety that averages 18 inches tied to a stake suitable for a 6-feet plant and *vice versa*. Keep the hoe going, and if you are using any artificial manures, now is about the most serviceable time to apply them. They may either be given in liquid form or scattered on in a dry state and watered in. Whichever method is adopted, sufficient should be given to thoroughly soak the soil. In the case of liquid manure, it is a good plan to well water the beds with clear water a few hours in advance of applying the manure.

A. P.



SAXIFRAGA PYRAMIDALIS AND SCHIZANTHUS HYBRIDUS USED FOR HOUSE DECORATION.

FLOWERING PLANTS FOR INDOOR DECORATION.

THE general tendency during the last few years has been to use more flowering plants in the decoration of the house than was the practice ten to fifteen years ago, and this has tended somewhat to limit the cultivation of many of the older ornamental-foliaged plants. This is rather a pity, as not only did these plants require a fair amount of skill to grow them well, but they also made, in many instances, very fine effects in indoor decorations, whether as isolated specimens in large rooms or vestibules, or when used in conjunction with some of the more graceful flowering plants in the decoration of fireplaces, windows and other recesses. If carefully hardened off before putting them in the house, many of these plants would do two or three turns in the house during their period of beauty, especially if this happened to be during the summer or early autumn months; consequently, so much glass-house room was not required for their cultivation as is necessary for flowering plants.

At the present time, in a great many places flowering plants are used exclusively, with, perhaps, the exception of a few Kentias or other Palms; and when this is the case, a great deal of forethought is necessary to keep up a supply of suitable plants, particularly where greenhouse room is limited. In very few instances will a flowering plant last longer than from ten to fourteen days in a dwelling-house and very often less, so that it behoves everyone to grow those plants which grow quickly and that do not occupy greenhouse room very long.

In a short article such as this it would be impossible to enumerate all the flowering plants that would be useful throughout the year, but I may, at least, touch on a few that are not only decorative, but which may be grown with a minimum amount of space under glass. During the winter and spring months bulbs of many kinds may be had in bloom, all of which are extremely useful, though for house decoration possibly Tulips, Narcissi and Liliums are the most popular, and the last-named may be had in bloom all the year round if the bulbs are obtained from cold storage at intervals of two months. Lilium speciosum album, *L. s roseum* and *L. longiflorum* are the best for this purpose, and they may be used in conjunction with almost any class of flowering or foliage plants and prove very effective. Tulips and Narcissi never look so well as when made up in pots or pans to fit the particular vase or jardiniere that they are to be put in when in the house, and the larger the receptacle the better the effect.

Many of our hardy flowering shrubs are now used very successfully. Considering that many of them only require from six weeks' to two months' forcing to get them into bloom, they may well be considered economical, and, once established in pots, many of them will force well in several seasons if treated properly after they have flowered. Among the most useful of this class of plants are several varieties of the shrubby Spiræas, double Peaches, Almonds, Cherries, Laburnums, Wistarias, Magnolias, Lilacs, Azaleas and Rhododendrons. This is only a short list, and specific varieties I have not mentioned, this being quite unnecessary.

Following these hardy shrubs, Roses are extensively used in the house, and many of the Dwarf Polyantha varieties are exceedingly effective, last well and, as they can be cultivated in very small pots, they are doubly useful. It is, however, the taller-growing varieties of the Polyantha and wichuraiana sections that make by far the boldest show, and whether grown as trained specimens, weeping standards, or simply three or four [illegible] tied in to a stake and the young growths allowed to hang down, they are all equally beautiful. Undoubtedly the two varieties that up till now have dominated all others are Dorothy Perkins and Hiawatha, the latter lasting particularly well in the house; but there are very many more worth cultivating, such as Taussendschön, Dawn, Delphinia Rambler, Una, Mrs. F. W. Flight, and American Pillar, while the two varieties shown at the Temple Show this year, Excelsa and [illegible] must not be missed by anyone interested in Roses for indoor decoration.

Another class of plants useful for this purpose are the annuals, and there is nothing I know that gives more pleasure than the cultivation of these in pots. They are simple in their requirements, are not long about, and serve their turn admirably in the house quite as well as many plants that require from eighteen months to two years' cultivation. Clarkias, Nemesias, Cyclamens and Calceolarias are all well-known annuals, as also are Collinsias, Schizanthus, Mignonette and Torenia. Clarkias, Nemesias, Larkspur, Salpiglossis, Godetias and Gypsophila elegans are salutary, but are not so well known as they ought to be, all of them making most useful pot plants, especially where bright window-boxes and fireplaces have to be decorated during the summer months.

Clarkias are worth a special note, as they are the most decorative annual I know, and may be grown into quite large specimen plants by potting on into 8½-inch pots, or if kept in 48-inch pots they are very useful as dot plants, the varieties Double Salmon, Carnation Flaked and Carmine Queen being especially good for pot culture.

For autumn decoration one cannot, of course, be without Chrysanthemums, and many varieties, particularly the singles, make good pot plants; indeed, it is as pot flowers that these plants excel. [illegible] bright plant for the autumn is Salvia splendens, and though the blossoms are apt to drop somewhat after a few days indoors, they are, nevertheless, of too showy a nature to be left out. Pyrethrums are also splendid for autumn decoration, and when used for the living-rooms or the table, they provide a glow of colour at a season when it is much needed.

There are now many varieties of winter-blooming Begonias, but for use in the house there is none that surpasses the old Gloire de Lorraine, if a white variety is required, Turnford Hall, both of these may be had in bloom from October to April, and after hardening a little they stand well in the house, and the soft colour is often preferred by ladies to the more showy Salvias and Poinsettias.

As mentioned before, I have not tried to name all the useful flowering plants, but rather to touch on some that are fairly easily grown, and many of which may be thrown away after they have once flowered. In the disposition of the flowers about the house, care must always be taken to see that the colours harmonise with the decorations of the rooms. Choose the best-shaped, grandest plants for standing out by themselves, and those that are not quite so good may, of course, be utilised in the formation of groups, filling of jardinieres, window-boxes and other places, always bearing in mind that a few plants used to produce a certain effect are far better than crowding, which means less light and air to each individual plant and, of course, a shorter life. Most of the plants mentioned are of a hardy nature, and a few evening drives will keep them in health, but a house is subjected to a little hardening previous to taking them in, and a small amount of trouble will be amply compensated for by the greater satisfaction to one's employer and oneself.

Thomas Smith.

OLETTA PANSIES.

REES AND SHRUBS.

HARDY RHODODENDRONS.

THE Rhododendron family is a very extensive one as regards species, and it is surprising that so few of them have been used in the production of the numerous hybrids of nearly every shade of colour that are in cultivation the present time. The species that are the ogenitors of the present race of hybrids are arboreum, R. catawbiense, R. caucasicum, Fortunei, R. griffithianum (Aucklandii), R. nticum, R. Smirnowii and R. Thomsonii. Where med hybrids are mentioned below, they are ssed with the species they most nearly resemble, two or even more species have been used in e production of many of them.

R. arboreum.—This is a native of the Himalayan gion, where it forms a small tree with age, but is unfortunately too tender to be planted outors in this country, except in the favoured rts of the South and West. The type has bell-aped, blood red flowers borne in loose trusses, d forms a striking object in the garden where succeeds. The foliage is dark green and rugose ove, with a silvery or brownish sheen beneath. s influence on the hybrids can be most appreated when we consider that practically all the st reds have obtained their colour from this ecies. There is a considerable number of early-ooming Rhododendrons about the country, nging from white to deep red in colour, that ve never been named, and which are the results the first crossings of R. arboreum with some the hardier species. Some of the named varies that show the influence of this Himalayan rent are altaclerense, blandyanum, Grand Arab, n of Austerlitz, nobleanum and russellianum, shades of crimson and red; and Baron Osy, anche Superb and Marquise de Ceaux, white.

R. catawbiense.—The use of this species in bridising may be said to have laid the foundaons of the whole series of beautiful hybrids as e know them at present, as from this species later period of blooming and a high degree of rdiness have been obtained. The leaves are long in shape, of a soft green colour, and are so softer to the touch than the majority of hododendrons. The flowers vary from rosy ac to deep purple in colour, and open about the d of May. Some of the most typical hybrids e Charles Dickens, Charles Bagley, H. W. Sargent, rosanguineum; Kettledrum and C. S. Sargent, imson or red; Lady Armstrong, roseum elegans d Parson's gloriosum, rose; everestianum and stuosum, lilac; purpureum elegans, purple; d album elegans, gloriosum, luciferum, delitissimum and Memoir, white or blush.

R. caucasicum.—This is a dwarf-growing species m the Caucasus, being found on mountain tops ar the snow-line. The type, which is rare in ltivation, is only 1 foot to 2 feet in height, d has ovate leaves with a brownish tomentum neath. The flowers are whitish, and are borne small, loose trusses. The hybrids are nearly characterised by a dwarf habit, and bloom in ril or early May. A representative selection comprised by caucasicum pictum and nivaticum, hite; and Waterer's caucasicum, venustum acksonii) and Prince Camille de Rohan, pink. e influence of this species, however, has mostly en in giving hardiness to hybrids between it d R. arboreum, the majority of which more sely resemble the latter species than R. caucasicum.

R. Fortunei.—This is a vigorous-growing species m China, with ovate leaves, glaucous beneath and shining green above. The flowers are white, tinged with pink, about 3 inches across, invariably seven-petalled and sweet-scented. Some of the hybrids are Luscombei, Duke of York and H. M. Arderne, all shades of red and pink. In course of time the influence of this species will be more strongly marked on hybrid Rhododendrons than it is at present.

R. griffithianum (*Aucklandii*).—This is a strong-growing species from the Himalayan region, and very much resembles the preceding species in general appearance when not in flower. The leaves are 6 inches to 12 inches in length, oblong in shape, smooth above and somewhat glaucous beneath. The white flowers are nearly 6 inches across, borne in loose trusses and have a sweet scent. The hybrids from this species are all characterised by large flowers borne in good-sized trusses. Some of them are kewense and Manglesü, white; Pink Pearl, Cynthia (Lord Palmerston), Strategist and Mrs. E. C. Stirling, pink.

R. ponticum.—This is a native of the Spanish Peninsula and Asia Minor, and is the commonest species of Rhododendron in this country, being found wherever the shrub can be grown. For woodland or covert planting it is an ideal subject, and when seen in the mass in full bloom its lilac to purple colouring forms a striking object. Its influence on the hybrids is most strongly shown in the narrow, pointed leaves, free, branching habit and general floriferousness of such hybrids as Mrs. Tom Agnew, album grandiflorum, Mme. Masson and Mum, white; and Michael Waterer and Viscount Powerscourt, red.

R. Smirnowii.—This is a native of the Caucasus, and is a bushy-growing plant from 4 feet to 6 feet high, with deep green leaves, very woolly on the under surface. The flowers are about 3 inches across, bright rosy lilac in colour, and borne in good trusses. This species has only been used comparatively recently for hybridising, but its influence will result—as far as can be ascertained at present—in a series of hybrids of bushy habit combined with freedom of blooming, and the flowers are borne in good trusses.

R. Thomsonii.—A native of Nepaul and Sikkim, and although it is fairly hardy in the London district, yet it is only seen to perfection in the more favoured parts of the country. The flowers are somewhat tubular and fleshy, and of a bright blood red colour. The most notable hybrids are Ascot Brilliant, which resembles the type in appearance and colour of flower, and Luscombei, a vigorous hybrid with red-pink flowers, obtained by crossing R. Fortunei with R. Thomsonii.

Bagshot, Surrey. J. CLARK.

THE NEW CYTISUS DALLIMOREI.

THIS hybrid Broom is one of the new plants which was given an award of merit by the floral committee of the Royal Horticultural Society at the recent Temple Show, while visitors to Kew have had an opportunity of seeing it growing in a group in the open ground in the neighbourhood of the Main Gate, as shown in the accompanying illustration, and also near the Tea Pavilion. It was raised at Kew eight years ago, its parents being C. scoparius andreanus and C. albus, the former being the seed bearer. From the cross several seeds were obtained, but only two plants grew. The more vigorous of the two blossomed first, and its flowers were of a clear yellow colour and intermediate in size between those of the parents. The subject of this note grew more slowly, and it was with difficulty kept alive during the first year. However, it became more vigorous afterwards, and when grafted on to Laburnum stocks grows as freely as either of its parents. Not only is it quite unlike either of its parents and the others seedling from the same cross, but also any other Broom, for the colour of the flowers is a rosy purple shade, the wing petals being almost crimson. As regards size, the blossoms are about half as large again as those of C. albus, while they are borne quite as freely as those of either parent. An item of interest with regard to the cross is that it was made artificially by Mr. W. Dallimore, after whom it is named, while probably all the other hybrid Brooms have originated as natural hybrids.

THE NEW HYBRID CYTISUS DALLIMOREI GROWING AT KEW.

GARDENING FOR BEGINNERS.

HOW TO DISBUD ROSES.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—The earliest Kidney Potatoes growing on warm borders will now be ready to lift. The skins are not firm as yet, and if any tubers are required for seed purposes, they must be left a little longer or selected from later plantings. Preparations for planting out the main crop of Celery may

1.—A SPRAY OF ROSE-BUDS BEFORE ANY DISBUDDING HAS BEEN DONE.

be made forthwith. An open position in the garden is more suitable than one partially shaded by trees, buildings or other erections. The trenches, even in good soil, should not be very deep ones, as in such a case the roots would be in a cold medium. Sufficient space must be allowed between the trenches, so that there will be ample soil for earthing-up purposes in due course without going down deep enough to injure the roots. The manure used must be thoroughly decayed and be mixed with the soil, not placed in the bottom of the trench and then covered with a thin layer of loam. Failing this, Wakeley's Hop Manure may be used with great advantage; Celery is very fond of it. Before the young plants are lifted from their nursery beds they ought to be well soaked with water; then a nice quantity of soil will adhere to their roots. Continue to put out winter greens on vacant ground; they may follow Peas and early Potatoes. It will not be necessary to dig up the ground; simply level the surface and sprinkle a good coating of soot on it. Where Potatoes have been grown in a light soil, it will be advisable to tread down the latter while it is dry prior to planting.

Flower Garden.—On many kinds of climbing and other plants, especially those of Honeysuckles, Roses, Privet, Chrysanthemums, Fuchsias, Zonal and Ivy-leaved Pelargoniums, the Cuckoo-spit, or froth-hopper, as the insect is often termed, is to be found in great numbers. I do not know of any insect that does more damage to a plant in so short a time. Any leaf or stem that the insect lodges upon will be permanently crippled in about two days. The pest sucks the juices of the leaf and then voids it in the form of froth. Plants that are syringed clean one day will be infested again the following. The safest remedy is to hand-pick the insects and so destroy them. In curled leaves on Rose trees caterpillars may be found lurking. These, too, must be hand-picked. To improve the quality of the flowers, especially if any are required for exhibition, give a thorough soaking of weak liquid manure following one of clear water. Good progress must now be made with the planting out of the more tender kinds of bedding subjects, so that the work may be all completed by the middle of the month.

Greenhouse and Frames.—The Achimenes are very beautiful greenhouse plants, useful for growing not only in pots, but baskets, too. Although the individual plants may be lifted from the pans and placed in others and in pots and baskets, it is much better to transfer the plants to larger pots and pans without dividing the ball of soil. Loam two parts, leaf-soil one part, and peat one part, with a small quantity of dried cow-manure and some very coarse silver sand, form a good compost. In potting, do not press at all upon the old ball of soil, else the tender corms will be broken. Amateurs who possess span-roofed greenhouses running east and west should grow their Achimenes on the north side, and this is the best position for the Fuchsias; they do not require much sunshine, but plenty of light. Zonal Pelargoniums thrive in the sunniest positions and should be placed on the south side, air being admitted freely both night and day. The atmosphere of greenhouses dries quickly now, and if the floors are damped twice every day, first, early in the morning, and again about three o'clock in the afternoon, the plants will be kept in a better condition than if they were subjected to a very dry atmosphere. Now that the bedding-out plants are all removed from the frames, the latter should be cleaned and made ready to accommodate winter-flowering Zonal Pelargoniums, Cinerarias, Calceolarias, Cyclamen and Primulas.

Fruit Garden.—Gooseberry bushes with pendulous-growing branches must be supported by means of forked sticks driven into the soil, else many berries, as they increase in size and weight, will bear down the branches low enough to sweep the soil, and heavy rains will then splash soil on to the berries, rendering them unfit for dessert. Where Raspberries, Currants and Gooseberries are growing in a very light soil, the surface of the latter must be well hoed and then covered with half-rotted manure to form a mulch. The weight of the crop will be increased and the bushes greatly benefited. Badly curled leaves of Currants with red blotches on them must be picked off and burned if green aphides are found on the under sides.

A. A.

HINTS ON DISBUDDING ROSES.

IT is a well-known fact that many of our best Rose exhibitors rely almost solely on the one or two flowers that are produced by a plant during the first year of its existence, such plants being termed maidens. No doubt this is a wise policy where practicable; but there are few beginners or amateurs who can do this, and who must of necessity rely on older plants for blossoms to show at their loc or even other, exhibitions.

The subject of feeding and other routine wo has so often been fully dealt with in THE GARDE that it is unnecessary to refer to it any more ju now, but much may be done at the present ti to enhance the fulness and increase the size of t blooms now in the bud stage. A judicious thi ning of these will in many instances make sufficie difference in the blooms to enable their owner win the much-coveted prize. The word "judicious is used advisedly, because, after all, much wi depend upon the variety and the conditions und which it is growing.

Taking a normal variety, however, we frequentl find the buds produced in clusters of three or mor as shown in Fig. 1, and it is for the owner to decid whether it is desirable or not to remove any them. Where the variety has to be shown as single bloom, it would be folly to allow all the bud to develop, one being quite sufficient. In ordinar circumstances the bud to retain would be th largest and uppermost one, as shown in Fig. but there are exceptions to this. Naturally, th bud left must be, so far as can be ascertaine perfect, and if the best-placed and largest of th cluster is damaged or malformed in any way, th next most promising one should be chosen. Agai in some varieties, such as Bessie Brown, where th flowers do not open well, it is advisable not to thi quite so severely, and many growers recommen the removal of the largest buds, the smaller on often opening better.

Where garden Roses have to be shown in spray some thinning of the buds may still be done wit advantage, removing any very small, weak an damaged examples, and taking care to retain, even enhance, the natural contour of the spra The work ought to be done at once, before th buds get too large, so that the whole energies the plant can be devoted to those retained. Man

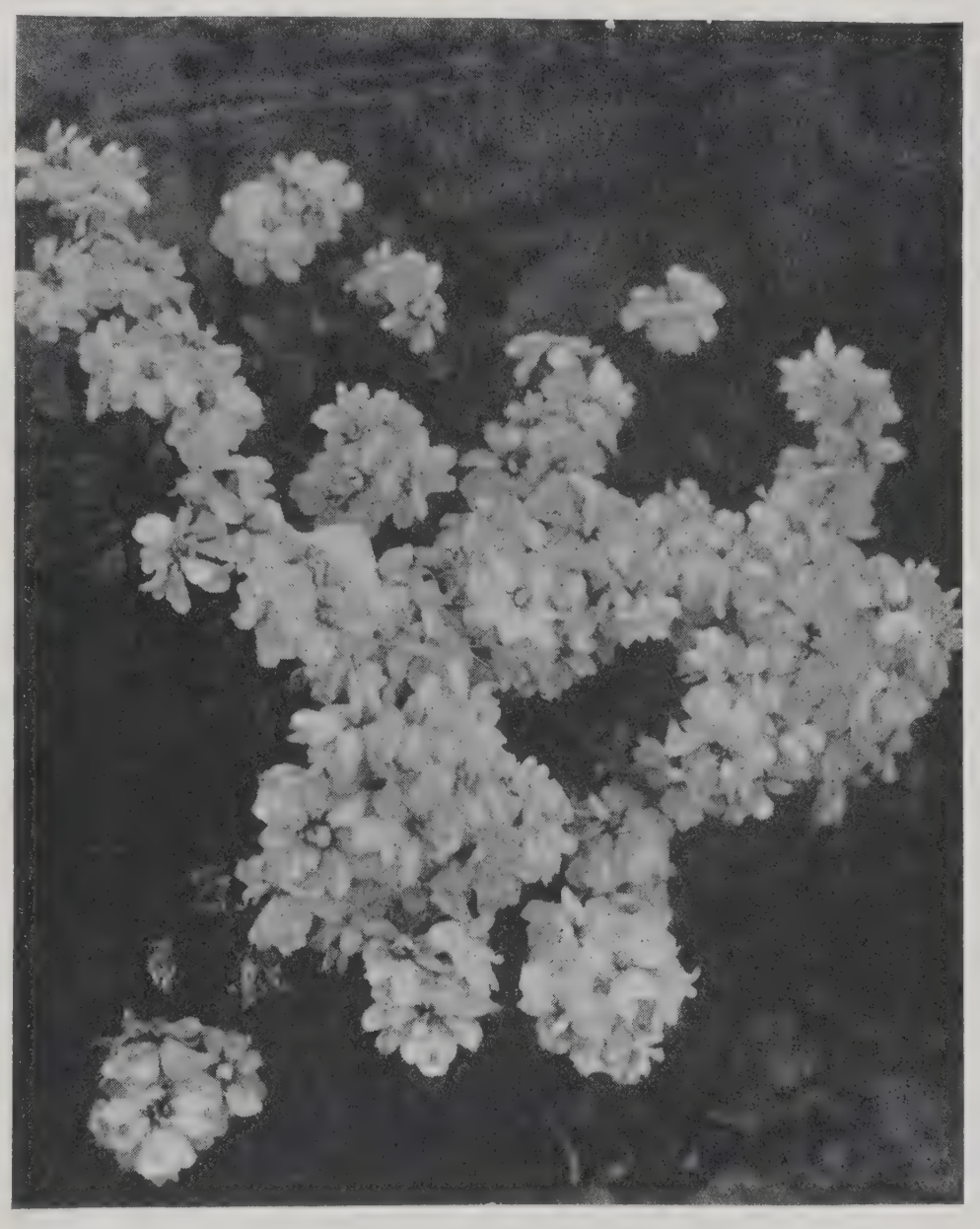
2.—THE SAME SPRAY AFTER THE SMALL SIDE BUDS HAVE BEEN CAREFULLY REMOVED. IT IS SOMETIMES DESIRABLE TO RETAIN ONE OF THE SIDE BUDS IN PREFERENCE TO THE LARGEST.

mateurs and professionals disbud to a less egree where extra good blooms are desired for urposes other than exhibition, but this, of course, a matter for personal taste. For my own part prefer a Rose with its buds nestling around it, ut it is scarcely likely that anyone else will agree ith me on this point. The actual work of thin- g may be done with a sharp pair of scissors, aking care that the stem of the bud retained is ot in the least injured. A. G.

A NEW RACE OF STOCKS.

HE Stock has for long been a favourite flower in ardens of Great Britain, and one of the greatest harms of the old-fashioned cottage gardens has een derived from its association with them. lanted close to the walls of the dwelling-house, here dry soil impregnated with me is almost certain to be found, he old perennial Stocks would rive and give their fragrant lossoms in profusion. During the st few years a new race has een distributed, and it is of the ehaviour of some plants of this ection that I now write.

Two years ago I secured from Messrs. E. Webb and Sons a packet f seed of their Admiration Stock, nd grew the plants as annuals. he results were most satisfactory, hough the plants were somewhat ter in flowering than ordinary edding Stocks, and also attained greater height. Last year the rocess was repeated, with equally ood results. A few odd plants ere, however, planted in a rather y, narrow border beside the ouse and close to the wall, this order facing south. These plants, ke those grown in other parts of e garden, flowered freely last utumn, but by some means or her were not cleared away after owering. In the early spring onths of this year they pre- nted a rather woeful appearance, ut with the advent of warmer eather new growth was freely ade, and by the second week in ay the plants were masses of ossom. The illustration shows a hite-flowered double variety, but any blossoms had been cut from is plant before the photograph as taken; indeed, it is one of e charms of this race of Stocks at the plants, when treated as nuals, branch freely and give an undance of flowers for cutting, eir fragrance rendering them eat favourites for the house.



A PLANT OF STOCK ADMIRATION. THIS MAY BE GROWN AS AN ANNUAL, BIENNIAL OR PERENNIAL.

the Admiration Stock, then, we have a race at can be sown in spring and treated as nuals, or sown in early autumn and grown biennials, with the chance thrown in that some the spring-sown plants may survive the winter d flower again the following spring. H.

SURPLUS BEDDING PLANTS.

HAT to do with the surplus bedding-out plants a question that is often asked at this season of year. Some, of course, have really not suffi- nt to fill the beds, much less any to spare. Very all plants are useful. I used to put out surplus nts in a part of the vegetable garden where y would brighten a border near a path, seat or our; but they were not put there for that rpose solely. Early cuttings are always very valuable, and, of course, though the gardener may know this, he is reluctant to cut off shoots for the purpose of early propagation, because his flower-borders are at their best as regards appearance and he is loth to mar their full beauty. From the plants in the kitchen garden, cuttings may be freely taken, and so a nice stock, early rooted, will be available and will withstand the winter fogs and moisture, also frost, better than late-rooted specimens. Zonal Pelargoniums, Lobelias, Ageratums and similar kinds do well treated thus. B.

THE TOWN GARDEN.

EARLY-FLOWERING CHRYSANTHEMUMS. — There should now be no further delay in getting the plants of these into their permanent quarters, and though, doubtless, there are many readers who have already finished this work, there are others who go to the opposite extreme in such matters. It cannot be too widely known, however, that early neglect in these matters is rarely again made good, the young plants, because of their inability to develop steadily, quickly becoming starved and skinbound of stem, and in this way pass a miserable existence till the rains and the cooling days and nights of autumn compel them to make fresh shoots from their bases, and in this way furnish the garden with a few flowers. For Northern and Scottish gardens the present time is a good one for planting out such things, and if good growth has been made, progress will soon be marked.

OUTDOOR TOMATOES. — These are now quite ready for planting out, and the sturdy, short-jointed and firm examples, having been already for weeks confined to small pots, will not be sorry the time has come when they are permitted to shift for themselves. In planting out avoid burying the stems too much, and make the soil about the plants as firm as possible. Those who neglect to do this now will be among the earliest to presently write and tell the Editor that "all the flowers are falling" from their plants, as nothing more conduces to this state of things than loose soil about the roots of the plants or an excess of moisture. In firming the soil about the plants it must be done thoroughly, and if a good watering is given at planting-out-time, no more will be needed, even in the hottest weather, for ten days or more, or until it is seen that the young fruits are swelling. One strong stake to each plant and the removal of all side shoots as these appear are other details of culture not to be overlooked.

SINGLE PYRETHRUMS. — Those who take keen delight in the best and showiest of early summer flowers should not omit to make a note of these useful subjects, which have no equal throughout the year. In white, pink and crimson they are most serviceable in the garden, and, giving stems 2 feet in length, are valuable in the cut state also. Hamlet, pink; Mrs. Bateman Brown, crimson; James Kelway, scarlet; Snowdrift, white; and Sherlock, crimson-red, are some of the finest, and there is also a great range of colour in the double-flowered forms. The plants are easily cultivated in rich garden soil, and if set out at once will flower well another year.

HYBRID COLUMBINES. — Not a few of the readers of these notes take a delight in exhibiting the produce of their gardens, and some of them, I know, engage in table decoration or vase work at their local summer show. To these I would say, "Always be prepared with good plants of these hybrid Columbines," for certainly no hardy garden plant is possessed of greater beauty or elegance, or calculated to produce a more distinctive result. The best strains are easily raised from seeds sown in boxes of sandy soil, and whether required for border ornamentation, for the exhibition tent or for home decoration, their value will be the same, and they will not fail to find many admirers. I have seen them very effective in beds alone, the Fern-like grace of their leafage having, in conjunction with the long spurred flowers, a singular and quite appropriate beauty that cannot be too highly praised.

SPRING BULBOUS PLANTS.—One of the most frequent enquiries that reaches one is "What can I do with Daffodils and Tulips now that their flowering is over?" "Can I lift them before the foliage dies down and dry them in the sun?" is but a variant of the same thing, the answer to which is "No, you cannot; at least, not with impunity." Those who now require to clear the beds for Begonias or other tender subjects should lay the bulbs in soil with the foliage intact, so that the process of ripening is brought about in as gradual a manner as possible. E. H. JENKINS.

TULIPS AT THE TEMPLE SHOW.

WITH me the Tulip season has been a very short one, and the flowers in most parts of my garden have been badly hit by the cold winds or the hail or the frost at nights. I remember when I used to do algebra at school " x " was always the unknown quantity. I feel that I ought to have written that my Tulips have been badly hit by " x," for what it is that has really done the damage I am quite at a loss to know. Everything that I begin to think is the cause, I find, on further consideration and weighing of facts, not to be so; at least, there is something that seems to flatly contradict me. One knows that the immediate cause is a fungus growth with a long name, " Botrytis something," but what is it that predisposes the plant to the attack? When I left home " x " had been at work for some time, and the effects of his unwelcome attentions were only too obvious. I fully expected to find a poor lot of flowers in London, and so it was a most agreeable surprise to see such exceptionally fine exhibits as those of Messrs. Sutton and Sons, Sir George Faudel-Phillips and Messrs. Barr and Sons. Sad signs of the season were the bruised flowers of Messrs. A. Dickson and Sons of Belfast, who usually at the Temple are on top of the tree or thereabouts. The small exhibit of Messrs. R. W. Wallace and Co. was very unlike their usual gorgeous display.

The introduction of some green and dark-coloured Beech leaves into the exhibit of Sir George Faudel-Phillips was a step in the right direction. Why should Tulips always be shown in such an unattractive way? More than half their beauty and elegance is lost when they are massed so much together. I sincerely thank Sir George for the lead that he has given.

Messrs. Barr and Sons arranged their flowers in a very educative way—Darwins by themselves, Cottage by themselves and florists' by themselves. The visitors who studied this exhibit saw at a glance the broad differences of the sections.

It is useful to know them when ordering, otherwise with the confusion of names we may not get what we intended. We have La Candeur in the early doubles and La Candeur, a synonym of White Queen, in the Darwins. Old Yolande is renamed Duchess of Westminster, and Grand Monarque, which I have grown for years, Duke of Westminster. Kingscourt and Cardinal Manning are the same thing with different names. Truly, Tulips are royal flowers, and the National Tulip Society is rightly called the Royal National Tulip Society. They are just like kings and queens; they nearly all of them have so many names. Hobbema, Le Reve, American Lac and Sarah Bernhardt all belong to a large and lovely salmony yellowy pinky flower that a few years ago suddenly leapt into fame because America wanted it and was prepared to pay for it. Bouton d'Or, Golden Beauty and Ida are the choice of names that the grand old golden-ball-looking Tulip gives us, and so on and so on, not forgetting the quaint old style of naming that William Baylor Hartland used to like so much—maculata globosa grandiflora, just like a name we might find in Passeus's famous picture-book of flowers, the " Hortus Floridus," " Tulipa alba et rosea colmixta."

I was much struck with the bright colour of a massive group from Messrs. G. Bunyard and Co. of Maidstone. I have an idea that there is a fair amount of lime in the soil about that part, and I always imagine—whether rightly or wrongly I am unable to say—that lime gives brightness of colour. A small but extremely interesting lot of blooms came from Harpenden. Mr. A. D. Hall is one of the very few Tulip-raisers of the present day, and he sent a lovely sample of his new seedlings. Some of the pinky orange shades, with their pure yellow bases, were superb, and his selection of mauves and purples was a very beautiful one. The pure white base suits these shades so well.

The outdoor group of Messrs. Cuthbert was a good try at showing Tulips in the best of all possible ways—that is, as they grow; but the flowers were rather small and their first freshness had gone. Nevertheless, it was an effective group. As to individual varieties, there were just a few that I should like to mention, viz., Lady Faudel-Phillips, a broken rose, probably the rectified form of some Darwin. It was a large, round flower, pure white, with medium-sized spots and dashes of rose, the white predominating. Bronze Queen or Clio, an immense biscuit brown bloom, just the shade of a properly baked Marie or Albert biscuit. I know there is a bed of this at Glasnevin, and it is one of Mr. Moore's favourites. Prince of the Netherlands, a grand Darwin, tall and of a rich deep rose crimson, with just a suspicion of magenta. Norman Knight (Wallace), a Cottage counterpart of the brilliant species Tulip fosteriana; very fine indeed. Zomerschoon, a real salmony pink and white striped; no other Tulip has anything like the same colouring. Unfortunately, it is never likely to become plentiful; it is such a slow one to increase—old age, they say. Last of all, I must mention the new Parrot Sensation shown by Messrs. Barr and Sons. All other Parrots are bizarres, whereas this is a byblœmen. Herein lies its interest. Why should this be the first Parrot byblœmen? It is a very interesting question, but one that will be difficult to answer.

JOSEPH JACOB.

THE FRUIT GARDEN.

LAYERING STRAWBERRIES FOR FORCING.

THE work of layering should be taken in hand as early as possible, so as to secure a quantity of strong, well-ripened crowns by the autumn. The operation is very simple, and needs no explanation here. There is, however, some difference of opinion on one point: Is it best to layer the young plants into 3-inch pots, a method that has been practised for years by many excellent growers, or is it an advantage to layer the plants at once into their fruiting or 6-inch pots? I have practised both methods, and am in favour of the latter owing to the saving of labour. The soil must be made very firm in the pots and the young plants carefully watered.

When on a visit to the gardens at Castle Ashby last autumn, a large number of exceptionally fine plants were noticed, and Mr. A. R. Searle, the head-gardener and a well-known prizewinner at many of the leading exhibitions, favours the practice of layering direct into the fruiting pots. Amateurs often allow a nest of small crowns to form around the base of the plant during the summer; these should all be carefully removed, so that a vigorous and well-ripened crown is built up, this being imperative if the best results are to be obtained. Whichever method is adapted there must not be any delay in securing the young plants, as the earlier they are layered the better chance they have of forming plump crowns that will give strong trusses of bloom next spring. Also, it is necessary to avoid propagating from barren plants.

COLIN RUSE.

SOME EARLY ROSES.

As I write on the first day of June, I have in v a pillar of that delightful single Rose Carm Pillar just opening its brilliant blooms, givi foretaste of the wealth of colour soon to be among its pretty pale green foliage. On an wall close by, Conrad F. Meyer is already bloom, yielding huge blooms of a lovely p shade and as fragrant as they are beautiful colour. Rows of the old common pink Mont Rose have been in bloom for some days now, and also has that delightful single yellow, Rosa Hugo The charming R. altaica has already given us contribution to the early Rose season, as have a other members of the same tribe, R. spinosissim both the lovely single as well at the double for R. sinica Anemone has given some wonderful large blooms of a most delightful silvery pi colour, reminding one in all save form of a lar Clematis. R. hispida and R. xanthina have co and gone, and although so very fleeting, th always are welcome, as we have so few yell Roses of a really hardy type. R. alpina, R. seric and R. acicularis are all lovely species for whi one should endeavour to find a position, not crowd away in the so-called shrubbery, but isolated that their individual beauty may be seen.

The rugosa Roses are now unfolding th charming blooms, and are perhaps more valu now than later on, excepting perhaps in autum when we have the rich colouring of the beauti fruit. Waltham Bride is always one of our earli white Ramblers, and it is ever welcome for delicious fragrance. Following it very closely Grüss an Zabern, perhaps the best of all ea white Ramblers, although many can find a w come for Thalia and Polyantha grandiflora, whi are both early flowering sorts. The yellow Rambl Aglaia always appeals to me, and it still is one of t best when handled right; that is to say, when t pruning-knife and secateurs are kept away from I have tied the shoots out to tall Bamboo can allowing as much space as possible for each growt thus ensuring a freer blooming and also more perfect development of its clusters of fragra flowers.

A very brilliant early blooming Rambler is Rul Queen, a most delightful shade of colour and wi exquisite foliage. The flowers are large, doub and produce a fine effect on the plant. Anoth very rich mass of colour may be obtained fro pillars of Robusta, a very rich shade remindi one of the Hybrid Perpetual Louis van Houtte.

Soon we shall have the Penzance Briars bursti out in all their charming variety of tints, fro palest pink to glowing scarlet and from bron copper to almost pure white. Then, planted clo by, we have the Austrian Briars, which give shades of yellow and gold that the Penzan Briars lack; while from the Hybrid Briar Una the perpetual-flowering Hybrid Briar Gottfri Keller we can have the most exquisite tints, t latter blending marvellously well with the scarl crimson Bardou Job.

Wherever possible, much may be done in the w of effective planting by noting the various tim that the different varieties appear, and I trust th note may be helpful to some reader who conte plates planting for effectiveness. I must not om to mention Tea Rambler, Alberic Barbier, Morlet Leuchtstern, Gerbe Rose and Blairii No. 2, they are so very good that one cannot leave the out of an early flowering plantation. P.

[We are rather surprised to find that our esteem contributor has made no mention of the old Gloi de Dijon, a Rose that has been giving us fragra blooms since the second week in May. It really a beautiful Rose when grown on a wall a not hard pruned.—ED.]

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to ke* THE GARDEN *helpful to all readers who desire assist-ce, no matter what the branch of gardening may be, and h that object will make a special feature of the "Answers Correspondents" columns. All communications should be rly and concisely written on one side of the paper only, addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock eet, Covent Garden, London, W.C. Letters on business uld be sent to the* PUBLISHER. *The name and address he sender are required in addition to any designation he y desire to be used in the paper. When more than one ry is sent, each should be on a separate piece of paper. nts for naming should be clearly numbered and securely ked in damp grass or moss, not cotton-wool, and flowering ots, where possible, should be sent. It is useless to send ll scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Lifting Narcissi before fully ripened *oung Gardener*).—If you are compelled by cir-nstances to lift the bulbs, you should at once l them in in some convenient spot to mature, aining the whole of the foliage intact. To lift bulbs in their now immature state and dry m in the sun would be doubly bad, and even lifting will produce a check from which a whole r must elapse before they recover. In those cumstances where the beds are required for a ble purpose, the deeper planting of the Daffodils ld modify the weakness or loss which must ow.

Daffodil names and Daffodils for rder (*M. P. A., Tyrone*).—The Daffodils reached in very poor condition, and it was impossible be certain what some of them were. Probably y were as follows: (1) Polyanthus Narcissus riosa; (2) Butter and Eggs or incomparabilis antius plenus; (3) Eggs and Bacon or Orange enix, incomparabilis albus aurantius plenus; probably Barri conspicuus; (5) possibly some bidgei variety, such as Robin Hood; (6) bidgei type. We would advise the whole der to be remade before the autumn, and all Daffodils that are in it to be taken up and the ones picked out. These should then be dried n airy shed or room and replanted later on. We mmend this because the blooms sent were ll and indicate that the plants have been ved. Double dig the whole (if possible) when bulbs are taken up in June, and add some bone-l and some slaked lime. Then plant again eptember. The following are some of the best ls for borders: Large trumpets—Emperor press, Mme. de Graaff, Golden Bell, obvallaris Glory of Leiden; cupped varieties—Barri picuus, Autocrat, Seagull, Lucifer, Crown ce, Gloria Mundi, Duchess of Westminster, ch and White Lady; Parvi varieties—Baroness th, Vanessa, Eyebright, Horace, Ben Jonson, andra, Comus, the Poetaz varieties and Cam-elle Jonquils. As this garden is in Ireland might almost venture to advise King Alfred, s one of the very finest yellow trumpets, but loes not thrive everywhere. All the new ties should be bought as early as possible at once planted.

ldew on Pansies (*Amateur*).—Your plants are ntly attacked by the Violet mildew, a well-known id disease common to the garden Pansy. The leaves latter plants, on their under sides, form a dense pale grey felt, and the foliage very soon shrivels and Plants coddled in frames, where they are frequently too moist and the atmospheric conditions too close, ubject to mildew. The worst-infested leaves should cked off and burnt, and the plants should then be ed with a solution made up of 1oz. of sulphide of ium dissolved in a quart of boiling water. This should ixed with 2½ gallons of cold water before using. If the whole of this insecticide is not used at one time, it should be kept tightly corked in a bottle or some other vessel.

Sweet Pea plants for inspection (*E. C. A.*).—The Sweet Pea plants are being devoured by slugs, probably very small ones. Dust soot, lime or powdered alum along the rows a short distance from the plants, or set traps of Cabbage or Lettuce leaves, on which they will feed and under which they will hide during the day, when they may be caught. Go out at dusk with a lantern, when you may catch the culprits in the act.

Iris seeds from Japan (*W. S. Chamberlain*).—Sow the seeds at once in any good mixture of soil—sandy loam with a little leaf-mould will do quite well—covering the seeds with half an inch of it. These Iris seeds are of large size, and should not be lightly covered, as is done with many seeds. They are sometimes slow and uncertain in vegetation, and may remain a year or two before appearing. On the other hand, the seeds may appear in the spring of 1911. If you have but a few, sow in a pot and cover the latter with a sheet of glass, placing the pot in a shady spot.

TREES AND SHRUBS.

Pruning Cydonia japonica (*J. Patterson*). You may prune your Cydonia (Pyrus) japonica as soon as the flowers are over. Cut last year's wood back fairly close to the old wood, but do not cut into the old wood unless the plant is very dense and you wish to thin the branches out a little. You do not say whether you refer to an indoor Abutilon or to Abutilon vitifolium growing out of doors. If the former, it ought to have been cut back about the end of February and have been repotted, or top-dressed if planted in a border, in March. A compost of two parts good fibrous loam, half a part leaf-mould and half a part well-rotted manure, with a little sand, is suitable. As it has gone so late you had better repot it at once if required; prune lightly now, and then allow it to grow on and prune it hard next spring. If you refer to Abutilon vitifolium out of doors, unless it is very straggling, we should advise you to let it alone now, and if pruning is necessary do it next February. Abutilons of any kind like generous treatment, and when grown in pots manure-water should be given frequently.

Oak leaves for identification (*L. C., Rugby*). The Oak leaves you send are those of the Lucombe Oak (Quercus lucombeana). This is often sub-evergreen, and is a hybrid raised many years ago near Exeter, its parents being the Cork Oak (Q. Ilex) and the Turkey Oak (Q. Cerris), the former, of course, being evergreen and the latter deciduous. There are several evergreen species of Oak, by far the best known in England being the Holm Oak (Q. Ilex). Some species grow into large trees, while others, such as many of the Japanese kinds, form large bushes. The moth you mention frequently lays its eggs on different kinds of Oak.

How to prune a Lilac (*N. S. Rawson*).—You can prune your Lilac in such a manner that it will blossom more freely, rather than not, the following year. What you want to do is to thin the branches out well rather than shorten them in a wholesale manner. Thin out the weaker shoots or small, twiggy branches, then rub off while still quite young a number of the young shoots, so that the whole strength of the bush may go to the perfecting of the remaining shoots, which will all be well exposed to light and air. These shoots will then perfect buds, from the majority of which flowers ought to be borne. Old flower-heads must be removed as the flowers fade, and if the bush needs shaping, a few branches may be removed. As a rule, pruning every second or third year will suffice.

THE GREENHOUSE.

Azaleas losing their leaves (*E. B.*).—From the appearance of the shoots sent, we have little doubt but that the roots of the plants are in a bad state. They may have been too dry or too wet, while the drainage may have been in an unhealthy condition or an excess of stimulants given them. Even with these various suggestions we may be wide of the mark as to the actual cause, and local matters concerning which we are ignorant may have had something to do with it. The potting mixture should not be at fault, although we would prefer an increased amount of peat with the soil. You do not say whether you repotted the plants owing to their unhealthy state, or whether they fell into ill-health after the repotting. To repot Azaleas properly requires far more care than in the case of soft-wooded plants, such as Pelargoniums, Fuchsias, &c., even if the roots are in a perfectly healthy state. In the first place, the pots must be quite clean and effectually drained; next, it is very important that the ball of earth is in a moist (not sodden) state, as if dry it will be almost impossible to restore it to its normal moist condition. Care must be taken that the ball of earth is not buried deeper than before in the new soil, as if this last is banked around the base of the stem the plant is sure to quickly fall into ill-health. A most important item is that the new soil be pressed down very regularly and firmly, as firm potting is most essential for the successful culture of Azaleas, Heaths and plants of this class. From the details we have given, you will probably be able to put your finger on the weak spot or spots in your treatment. We should advise you to keep your plants shaded from bright sunshine and frequently syringed, taking special care at the same time that the soil, though moist, is not allowed to get too wet.

Repotting Azaleas (*S. A. L.*).—In the first place, it is by no means necessary to repot Azaleas every year, providing (and this is an all-important matter) the roots are in a good condition. As the foliage of your plant droops at times, even when not dry, we should say that very probably the roots are at fault, perhaps owing inefficient drainage. Your better way will be to repot the plant directly the flowers are over. The most suitable compost for Azaleas is a mixture of peat and sand, as, unless there is a liberal amount of peat in the soil, it is useless to expect Azaleas to thrive therein. This may account for your non-success in repotting the plant last year, as you do not say anything concerning the kind of soil used. When the plant is turned out of the pot for repotting, the broken crocks employed for drainage should be taken from the ball of earth and as much of the old soil removed as can be done without unduly distressing the roots. When this is done, you will perhaps find that the plant requires a pot very little, if at all, larger than that in which it is now in. At all events, the pot must be quite clean, dry and effectually drained by means of broken crocks, while it is very necessary that the ball of earth be fairly moist, as if dry it cannot, after repotting, be moistened in a satisfactory manner. When finished, return the plant to the window if you have no greenhouse available, and stand it outside during steady rain. The soil must always be kept moist, but not waterlogged. When the plant has made good growth it may be plunged out of doors, taking care that it is at no time allowed to get dry at the roots. A sprinkling overhead every evening will be beneficial. The variety President Oswald de Kerchove is recognised as one of the leading kinds.

ROSE GARDEN.

The Banksian Roses (*M. R.*).—These will grow freely enough in many places where it is almost impossible to obtain a bloom from them. They are essentially sun-lovers, and on a warm south wall they are often seen at their best, being then profusely laden with their delightful flowers. We should say that the want of bloom on your plants is owing to both soil and position being too cold. These Roses do not require much pruning, all that is needed being the removal of any old and exhausted wood directly the flowers are over or the flowering season is passed. One caution to be particularly observed in the case of Banksian Roses is not to cut away more than can be avoided of the small twiggy growths, generally referred to by gardeners as spray, as on these the major portion of the flowers are produced.

Rose foliage blighted (*G. B. B.*).—The spots on the foliage are known as black spot. It is a troublesome fungus, and few gardens are immune from it. The best remedy is to spray early and often with a solution of sulphide of potassium. This is made as follows: Half an ounce of the sulphide to one gallon of water. Add a tablespoonful of liquid glue or white of egg to make it adhesive. Do not make up too much at one time, as it is best applied fresh and with a fine sprayer.

Soil for Roses (*A Constant Reader*).—The sample of soil sent is one in which you cannot hope to grow good Roses. It lacks fibre and humus. This you could remedy by obtaining some loam from a meadow, that which is found just beneath the grass. Break it up and add one part of manure to two parts of loam. If you cannot obtain farmyard manure, Wakeley's Hop Manure is a good substitute. For each Rose you plant in the greenhouse a hole should be opened about 2 feet wide and 2 feet or 3 feet deep; then fill it with the soil and manure

advised. This could be done at once, and if the plants are unhealthy, discard them and procure others growing in pots, transferring them from their pots to the holes and pressing soil firmly about the ball of earth. If you obtain young plants in growth, these should give you some nice blooms this year. Please send your name and address, as per rules, when writing again.

FRUIT GARDEN.

Brown scale on Peach trees (*Dr. Noble*). The pest affecting your Peach trees is the brown scale. It may be killed in winter while the trees are dormant by the application of a strong insecticide as given below; but it would not be safe to apply a strong enough insecticide to kill the scale now, as it would inevitably cause serious injury to the tender foliage. The only thing to do is to harass and to brush it off by hand, using warm soap and water and a small brush not too hard. In winter spray the trees with the following mixture: Paraffin (Tea Rose), 7 gallons; soft soap, 12lb.; water, 100 gallons. A less quantity may be prepared, the proportion of each constituent being the same.

Commercial fruit-growing under glass (*Cinderella*).—This industry, although it has grown of late years into enormous proportions, is not specially, as far as we know, represented by either. The business is mostly in the hands of large growers, who, by reason of the greatness of their turnover, succeed in growing their crops with far less labour, and therefore cheaper, than the small grower with only an acre or two can possibly do. Many persons who are in a small way in this line of business, no doubt, succeed very well; but it will be invariably found that where this is the case the head of the business is a hard worker himself, has a thorough practical knowledge of the work, and has, besides, a good business capacity. Our experience goes to prove that it is a mistake, often a serious one, for any person to start in this business unless he has been previously well grounded in the work, and unless, also, he is prepared to take his share of the hard work which has to be done for a long time before such a business can be made a success. The work, no doubt, is pleasant and interesting; but it is highly technical, and if not understood by those embarking in it, may easily, and soon, land them in heavy losses. To cover most of two acres with glass and to heat and furnish the same with all necessary appliances for carrying out the work would entail the expenditure of at least £2,000, and probably more. As to the returns which may be expected from a small establishment like this, it will depend entirely on the management. It may be anything from £200 to £400 or £500 per acre gross. For our part we would much prefer to buy or rent a modern business to start with rather than build up a new one. There are always plenty on the market to choose from.

KITCHEN GARDEN.

Tomato for inspection (*F. D. P.*).—The damage was probably begun by mechanical injury to the stem, and a fungus thus gained entry and so caused the damping. Damping off usually begins at the soil level.

Wireworm and Tomatoes (*J. T. Shepherd*).—The application of the Apterite should go a long way to clear out the pest, though as the wireworm is particularly partial to the Tomato plant, you had better place Potato traps a few inches from the stem of each plant, and by examining these frequently many may be caught and killed. In any case, the Potatoes, which should be sunk about 4 inches deep, will cause a counter attraction and keep them from the Tomatoes. If you are afraid of the pest coming into the soil of the greenhouse from without, dig a slight trench and dress it with Apterite, or put in any old or unused Potatoes you may have at hand. This will give the pest something to do. Another winter dig the soil frequently and pick out as many as you can see. By encouraging the sparrow and robin after the digging the birds will quickly detect them and reduce their numbers.

Diseased Mint (*A. E. S.*).—The Mint is attacked by the destructive Mint rust (Puccinia menthæ). The stage shown by the plants sent is the early stage of the fungus, when the spores are produced in little yellow cups on the deformed leaves and stem; later in the season two other forms of spores are produced in darker brown or almost black clusters on the under sides of the leaves of the same plant, very different in appearance from those now occurring, but, like them, each capable of reproducing the disease on Mint. In the case of the last, it is also capable of withstanding injury from weather, &c. Once attacked, the Mint cannot be got free from the fungus. It permeates the whole of the plant, passing down into the underground portions, where it remains during the winter and whence it spreads to the new shoots in the following year. It is, therefore, useless to apply any fungicidal sprays to the diseased plants. They should be dug up and burnt forthwith, and a new stock of Mint raised by the division of healthy plants. These should be planted a distance away from where the diseased ones were growing. The wild Mints are attacked by the disease as well as the cultivated plants.

Growing Mushrooms in dark outhouses (*A. Reid*).—With plenty of manure from corn-fed horses, splendid crops of Mushrooms could easily be grown in such structures. The season at the present moment is not a good one to start growing Mushrooms in, as if prepared now, the beds would be in bearing in the middle of summer. Mushrooms do not like heat. Even the oldest and best growers find a great difficulty in growing even moderate crops at this time. We would advise our correspondent to prepare the manure for his first bed early in August. This should bear towards the end of September and continue in profit for about six weeks, when the manure should be cleared out to make room for another bed. To keep up a succession it is a good plan to make up a new bed every three weeks. To make it clear to our correspondent how the details of the work should be carried out would occupy a page of THE GARDEN. We would, therefore, at the present moment advise him to spend a shilling on a little book named "Mushrooms and How to Grow Them." The work is by John F. Barter, a commercial Mushroom-grower of forty years' standing. It is plainly written, easily understood, and the most reliable work on the subject we know of; by post 1s. 2d. Published by John F. Barter, Limited, Napier Road, Wembley R.S.O., Middlesex.

Transplanting edible Pea plants (*H. W. R.*).—Transplanting edible Pea plants is not a common practice, because as a rule these Peas are sown thick—indeed, far too thickly—and thus plants are too crowded rather than thin. But, seeing that it is a common practice to plant Sweet Pea plants into rows or clumps in the open ground, taking them from pots, pans or boxes, there can be no reason why edible Pea plants may not be treated in the same way. But the plants should not exceed 4 inches in height, and be lifted with a fork, so that the roots come freely away from the well-loosened soil. Only a few at a time should be lifted, these being replanted at once. Have the ground deeply dug and well pulverised; then, straining a line across the breadth where the row is to be, take out a trench 6 inches deep. Into that, 4 inches apart, put the plants, placing some fine soil against each one as soon as placed in the trench to hold it in position. When all are planted, give a good watering and at once put a few sticks to them.

MISCELLANEOUS.

Foliage plants for drawing-room (*M. P.*).—There are not many foliage plants of the character you require, that is if Palms are omitted. Most of these are, as you say, apt to become somewhat lumpy under the conditions named; but you would not find this to apply to Cocos flexuosa, whose tall, light and graceful habit renders it a very popular subject with the large London furnishers. Another plant much in demand for similar purposes is Thamnocalamus or Arundinaria falcata, which is often known as Bambusa gracilis. It thrives well in the greenhouse and is not too wide. Other plants likely to serve your purpose are Cordyline (Dracæna) australis, C. (Dracæna) Eckhautei, Fatsia japonica (Aralia Sieboldii of gardens), Grevillea robusta, and Asparagus Sprengeri if tied to an upright stake. Although it is a m formal-growing subject than that to which y question refers, the Norfolk Island Pine (Arauc excelsa) is a very useful foliage plant for a gr house, and so are the variegated varieties of New Zealand Flax (Phormium tenax).

Pruning Heather (*C. C.*).—The best t for pruning Heather is as soon as the flowers fa the spring-flowering kinds towards the end of M and the later kinds during autumn or winter. have had no experience of anthracite coal sto in bulk. You do not say how much you prop to store; hence we cannot give an idea of chances of an explosion occurring. We sho imagine that the quantity you would require store at once would not be sufficient to occas danger, but it would be advisable to obtain opinion from your coal merchant or some min expert.

Information about wasps (*Mrs. E. L. G.*).—Wa do not lay eggs in old nests. The queens will now be b making new ones, and though they may use the mate of the old, they will not necessarily build near it. any case, a little sulphur burnt so that the fumes fill space below the tiles would probably render the situat unpleasant for the insects.

Preparing and applying weed-killer (*Cons Reader*).—Your best method will be to purchase one of prepared weed-killers advertised in our columns. W these the vendors supply full directions for their appli tion, and such preparations are far more satisfactory t anything that could be made at home, and are quite cheap.

Tomato plants for inspection (*J. F.*).—No ins or fungus was present to which could be attributed wilting of the foliage. There was some injury, as by a bit insect or slug at the base of the stem in one plant, but in the other. In both the root was but poorly develop and we think the trouble was probably due to this caus

What is an amateur gardener? (*W. J.*).— doubt you felt it to be a great hardship that, having been awarded a prize at a flower show, you should later, the protest of a competitor, have been disqualified. exhibited in what are termed amateur gardeners' cla as such, but was disqualified on the ground that because sell surplus plants you must be regarded as a professio It was very unfortunate that when your entry was sen the committee did not deal with it, and, if holding you be a professional, should have refused your entry. T your entry in the amateurs' section was received accepted was practically admission that you was an amat gardener, and for that reason the protest should not h been accepted in that special case. It was really m a matter for future action than for that occasion. fact that both the committee and the four professio assessors called in to assist in the matter were equ divided shows how very improper was the ultimate qualification; nothing less than a two-thirds majo should have settled such a serious matter. Your work a wine merchant's assistant, in which you are enga every weekday for twelve hours, shows clearly that are an amateur absolutely. You do not live on y gardening, but do it as a recreation. When you surplus plants, do you publish a price-list of them circulation? If you do that, then it would be a gr factor against you. If, on the other hand, you me sell what surplus plants you do not want to your ne bours for their benefit and to enable you to purch other plants or seeds, then you are strictly an amat Hundreds of others situated as you are do just the sa thing without protest.

Tree Ferns in the open (*B. H. Rydar*).—The o Tree Fern that can be grown successfully out of doors the British Isles is Dicksonia antarctica, and this can o be depended on to grow satisfactorily in the most favou localities, such as the warmer parts of Dorset, Dev Cornwall and Ireland, and places with a similar clim A great many may be seen growing out of doors in neighbourhood of Falmouth It is doubtful whet they would prove a success in Sussex unless it is here and there in sheltered positions. The best way obtain them would be to advertise, as it is doubtful whet nurserymen stock them to any extent The most lik people are Messrs. Gauntlett and Co., Haslemere; Mr. Gill, nurseryman, Falmouth; and Messrs. Pennick Co., nurserymen, Ireland. There is a Tree Fern cal Dicksonia squarrosa, but it is not suitable for outd culture in any part of the British Isles.

Names of plants.—*Violet York.*—We believe Rose is Souvenir de L. Viennot.——*A. B.*—Narcis poeticus flore-plenus. The plant is Nepeta Glecho variegata, and is a perennial.——*A. L. Ford.*—Sene Kæmpferi aureo-maculata.——*E. M. G.*—1, Garden fo of Lilac, cannot identify; 2, Collinsia verna; 3, Veron pectinata rosea; 4, Arenaria purpurascens.——*Mrs. L.* —Pyrus lobata.——*A. W. M.*—Asperula odorata (Wo ruff).——*A. G.*—Brassica verrucosa.——*P. Z.*—Saxi trifurcata and Fuchsia splendens variety.——*J. Y.* 1, Coronilla Emerus: 2, Centranthus ruber; 3, Clem montana; 4, Viburnum tomentosum plicatum: Spiræa van Houttei.——*Miss J. Deane.*—Ribes aureu

THE GARDEN.

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CONTENTS.

THE SUMMER AILMENTS OF THE GRAPE VINE 297
Death of Sir George Newnes, Bart. .. 298
NOTES OF THE WEEK
Forthcoming events 298
CORRESPONDENCE
Double primroses reverting to singles 298
GARDENING OF THE WEEK
For the South and South Midlands.. 299
For the North and North Midlands.. 299
An interesting garden 300
KITCHEN GARDEN
Late Peas 300
Chicory and its culture 300
The Turnip flea-beetle 300
John Parkinson.. .. 300
GREENHOUSE
Flowering Cannas in the greenhouse.. 301
Sparmannia africana 302
FLOWER GARDEN
The Mountain Sandwort 302
FLOWER GARDEN
Sweet Pea chat .. 302
COLOURED PLATE
The Violettas.. .. 303
TREES AND SHRUBS
Ceanothus thyrsiflorus 303
Magnolia fuscata .. 303
GARDENING FOR BEGINNERS
Garden work week by week 304
Thinning seedling Carrots 304
Staking Runner Beans 304
Watering plants in hot weather .. 305
THE TOWN GARDEN.. 305
New plants.. 306
Editor's Table 306
ANSWERS TO CORRESPONDENTS
Flower garden .. 307
Greenhouse 307
Rose garden 308
Miscellaneous.. .. 308
SOCIETIES 308

ILLUSTRATIONS.

Tree Ferns in the open at Heligan, Cornwall 300
Anemones from Parkinson's "Paradisus" 301
The Mountain Sandwort in an Essex garden 302
The Violettas .. .. Coloured plate
The Californian Lilac as a wall plant 303
How to thin Carrots 304
How to stake Runner Beans.. 305

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE SUMMER AILMENTS OF THE GRAPE VINE.

MANY ailments of the Vine during its season of growth are no doubt the result of preventable causes, the chief of these ailments being general impaired vitality. This, of course, may be due to causes which can only be repaired during autumn and winter, such, for example, as the bad condition of the border and the roots of the Vines, defective drainage, or many other causes which can only be dealt with while the Vines are in a dormant condition. With these I do not propose to deal, excepting where they may incidentally affect the summer treatment. Apart from this, the impaired vitality of a Vine may be due to causes for which the summer treatment alone is responsible.

Among those causes the chief one perhaps is the bad effect of overcropping. If the gardener himself does not know that he is placing too heavy a burden on his Vines in the shape of too many and too heavy bunches, he will not have long to wait before the fact will be revealed to him in a very practical and unpleasant way by the Vine itself, not only by its failure to properly develop and mature its crop of fruit, but also by the fact, which is of more serious import, that its constitution will have suffered injury for years to come. I am afraid this is a common form of cruelty to Vines among gardeners. To be candid, I must confess that I am not innocent of the charge myself. With me it is a case of guilty; but I will not do it again. Let us hope this is the worst that can be said of many others.

The next cause of importance of ailments in Vines in summer is probably watering. I am afraid that in the matter of carrying out this important duty, rule of thumb generally governs our practice more than does exact and reasoned knowledge. Some gardeners believe in keeping their borders comparatively dry during winter while the Vines are at rest, and in giving extra copious waterings during the season of growth. I am now alluding to inside borders. There are other equally competent gardeners who follow a course of watering diametrically opposed to this. Their practice is to heavily irrigate their Vine borders in winter with rich manure-water in the belief that the roots of the Vines are never quite inactive, even at that dead time of the year, and also that the Vine is nourished to a considerable extent during winter by such watering. Further, they contend that the soil of the border is considerably enriched by the manurial constituents of the liquid manure, which it retains for months afterwards, and from which the Vines benefit during their season of growth.

This practice, combined with summer mulchings of manure, obviates to a great extent the necessity of too frequent waterings during the growing season. The effect of too frequent waterings results in considerably reducing the temperature, and, more or less, the fertility of the soil by the loss of manurial composts washed into the drains, to the evident detriment of the Vines. I am a strong believer in this heavy irrigation of inside borders in winter with rich manure-water from the farm or stable yard, following up such treatment with rich mulchings of fresh horse-manure and loam during summer, both inside and out, with moderately heavy waterings only, and those with manure-water not too strong.

Timely attention to the stopping of lateral growths must be given. It is the aim, or should be, of every good gardener to build into the principal leaves of his Vines as great a weight, substance and size as possible. The greater his success in this direction, the more likely are his Vines to be free from disease and capable of carrying and finishing creditable crops of Grapes.

I believe that timely attention to the stopping of Vine laterals has more to do with helping the Vines to attain this end than many gardeners are aware of. It secures to these principal leaves the maximum quantity of light, air and sunshine during the growing season. On the other hand, when this work is neglected, what do we find? We find these principal leaves (which are really the lungs of the Vines) stifled and choked by the wasteful overgrowth of these laterals. It should be made an imperative rule in every garden at this time of the year, while growth among the Vines is so rapid and free, that the stopping of laterals at the second or third leaf should be attended to every week or ten days. This is assuming that the Vines are making a normally healthy growth and that the foliage is healthy. It sometimes, unfortunately, happens that, in consequence of disease or owing to the attacks of injurious pests, the principal oliage alluded to has been injured and

its natural functions in consequence impaired. In such cases it becomes a duty, instead of restraining the growth of laterals, to encourage that growth to enable it in a measure to take up the work the permanent leaves are unable to perform in consequence of injury, so that the crop may be matured without serious loss.

Having treated of some of the summer causes inimical to the general health of the Vines, I will in a future article endeavour to point out the cause of summer ailments which may be termed local, such as scalding, rust, mildew, shanking, &c., with suggestions how to prevent and to remedy. OWEN THOMAS, V.M.H.

DEATH OF SIR GEORGE NEWNES, BART.

THE death of Sir George Newnes, Bart., which occurred last week at his beautiful home, Hollerday, Lynton, is a great loss to the world of light and popular journalism. His loss is personal to us as he was chairman of the company to which THE GARDEN belongs. Sir George was endowed with great gifts, and his kindliness of heart won him many sincere and enduring friendships. The career that has just closed was marked by great earnestness of purpose and a determination to maintain a high tone in the various publications issued by the firm which bears his name and of which Sir George was founder and chairman. Many a helping hand has he extended to those struggling to gain a footing in the world of journalism. The splendid success of Sir George's undertakings is eloquent testimony to his foresight, energy and a discrimination that never swerved from his ideal, which was to give the public to which he appealed something that would be interesting and amusing, yet thoroughly wholesome. The daily Press has so fully recorded the work of one of the most striking personalities of his time that it is unnecessary to recapitulate what has been already written. From the beginning until the end, Sir George was a man remarkable for his business acumen, his large-heartedness and his simple tastes. He was interested in many good works and gave freely and unostentatiously for the well-being of others, and his enthusiasm in the cause of Polar exploration has greatly helped forward this fascinating research. Sir George leaves one son, who succeeds to the baronetcy. To him and to Lady Newnes we tender our respectful sympathy. The funeral took place on Monday last at Lynton, amid tokens of real sorrow for one cut off in almost the prime of life—at the age of fifty-nine.

FORTHCOMING EVENTS.

June 21.—Royal Horticultural Society. Exhibition of Plants, Fruits, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m., by Mr. W. Cuthbertson and Mr. James Grieve, on "Fifty Years Among Pansies and Violas." Admission 2s. 6d. Royal Horticultural Hall, Vincent Hall, Westminster. Oxford Horticultural Society's Show. Royal Agricultural Society's Show, Liverpool.

NOTES OF THE WEEK.

Edinburgh "waste spaces" gardens.—Much good is being done in Edinburgh by the conversion of waste spaces in the city into gardens, through the work of the Open Spaces Committee of the Outlook Tower. The latest additions were opened the other day in the shape of two pretty gardens at West Port and Candlemaker Row. Professor Geddes is the moving spirit in the movement, but quite a number of others are energetically promoting it. There was a good attendance at the opening ceremony, which was performed by Lord Provost Brown. In his speech the Lord Provost quoted Mr. M'Hattie's opinion, that the gardens were of great educational value as well as highly ornamental.

The Neill Memorial Prize.—The council of the Royal Caledonian Horticultural Society have agreed to award the Neill Memorial Prize to Mr. Alexander M'Millan, Westfield Road, Edinburgh. Mr. M'Millan is a distinguished gardener who has had a long and highly honourable career, and who, by his work in hybridising and seedling-raising, has done much to further horticulture. Mr. M'Millan, who has attained the advanced age of seventy-five, has had a varied experience, beginning his horticultural career in a market garden near Port Glasgow, whence he gravitated to Edinburgh, afterwards following his calling in different places in England and Scotland. He is best known, however, from his work at Trinity College, Edinburgh, where he spent some sixteen years in the service of Mr. A. Currie, and where he took up, highly successfully, the hybridising of Rhododendrons, raising many of sterling merit, the varieties being greenhouse ones. He was an excellent cultivator of many plants, and it may be said that he was successful with whatever subject he took in hand. Chrysanthemums were great favourites with him, and his influence and example did much to establish the annual Chrysanthemum show of the Scottish Horticultural Association. His Rhododendrons gained several medals and awards of merit, as well as first-class certificates. It may be added that Mr. M'Millan will receive the prize for two years, this being the proceeds of a sum of money left by the late Dr. Patrick Neill.

Flower gardening by Messrs. Kelway and Son.—This well-known firm has planted all the beds around the Canadian Palace at the Japan-British Exhibition with a varied selection of specialities, including Pæonies, Pyrethrums, Gaillardias, &c., with Gladioli, and also a series of very large beds forming a half section of a circle in a prominent position at the northern central portion of the exhibition. These have been arranged as well as possible at the short notice given with the following hardy perennial plants: Delphiniums, Pyrethrums, Gaillardias and Gladioli in a scheme of our national colours. The fact that such a short time is given exhibitors before these exhibitions open militates against success with plants, but these beds should make a good show during the season and prove a great attraction.

Perpetual Carnation Empire Day.—The most beautiful Carnation shown at the recent exhibition of the National Carnation Society was Empire Day. It is a flower of matchless form, with broad petals slightly fringed, and filled with fragrance. The colour is a strong pink, and the more familiar varieties of this shade placed against it sink into comparative insignificance. There are strength of colour and strength of growth. It is a flower that should become as popular in the near future as Enchantress, which until now has held premier position among the pink Carnations. I was awarded a special silver-gilt medal at th show referred to.

Addlestone Rose and Sweet Pe Show.—This is fixed for Wednesday, July 6, an promises to be exceptionally attractive this year There are a number of open classes, including o for Roses confined to trade exhibitors, in which the award is a challenge cup, at present held b Messrs. B. R. Cant and Son. Sweet Peas will, o course, be strongly represented. Messrs. Henry Eckford of Wem and Breadmore of Winchester, the well-known growers, are both arranging to stage exhibits.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Narcissus Johnstoni King and Queen of Spain.—Mr. Molyneux has always something of interest to tell us, whether he writes of Roses or other flowers, and I am very glad that he has raised the question of the distinction between the Daffodils King and Queen of Spain. After observing them somewhat carefully for several years, I am sure that they are quite distinct plants. The King of Spain has the edge of its crown or trumpet turned back and somewhat indented. Mr. Molyneux calls it "frilled." The Queen is more severe, with the edge of the crown straight. The King comes into flower some eight or ten days earlier than the Queen. In my garden I have never been able to find a bulb of the King change into that of the Queen with the straight upper lip, or *vice versa*. I incline to think—though on this point I cannot feel so certain—that the flowers of the King open rather more simultaneously than those of the Queen, and that the latter is slightly more lasting. It is somewhat like pallidus præcox in one respect, namely, that the flowers of different bulbs, even in the same group, often vary some days in their time of opening, but they do not vary so decidedly among themselves in this respect as to prevent one observing the earlier opening of the King. They are both very beautiful, and perhaps the most lasting flowers of all the trumpets on the plants and when cut. Sometimes I like one the best, sometimes the other. To my fancy the King has the more smiling and cheerful appearance, while the beauty of the Queen is somewhat more chaste and severe. They have, I think, but one defect, and that is that in common with many of the smaller Daffodils, calathinus, minimus, the Hoop Petticoats and the like, they increase in my garden very slowly. To counteract this disadvantage it is well to sow the seeds of these smaller varieties freely, and they possess the advantage that they take a little, if only a little, less time to produce a flower than do their larger sisters. They will flower about four years after sowing. It is often tedious to devote a piece of ground all this time to the seedlings, and so it is a good plan, where the circumstances admit, to break up the soil when the seed ripens and to scatter the seed round the existing plants, being a little careful as to hoeing in the spring, but otherwise letting them take their chance. By this means, when the time comes for lifting the plants, in the course of ordinary cultivation in three or four years after planting, a certain number of bulbs will generally be found in various stages of development at the cost of very little trouble.—H. R. DARLINGTON, *Potters Bar*.

Double Primroses reverting to singles. If the single mauve Primroses alluded to by Mrs.

. H. Smyth (page 271) are really reversions to the ingle form from the old double mauve or lilac, as sually called, there is little probability that they ill return to the double form again. I have known everal cases of such reversion of both the white nd mauve doubles, but never that they again ecame double. But they should in their single orm have what the florists designate as the thrum ye, as all doubles have originated from singles aving the thrum eye and not the pin eye. It is trange to read of some of these reverted plants nowing the Polyanthus stem or form, as that eems to be so very unlikely. Still, some of these everted singles may have carried seed in previous ears, which, germinating in the soil, grew and pro-uced seedling plants of the Polyanthus form.—D.

A good mixture.—It is always well to be n the look-out for plants that associate pleasantly nd to note them for later planting. Often the ucky juxtaposition has come by chance and ight never have been thought of. One such appy mixture is formed by a group of well-grown umps of Orobus vernus, with Sweet Cicely (Myrrhis dorata) at the back It is in one of those spaces etween shrubs and turf that are so often either acant or inadequately filled. The place is in ather more than half shade, a condition favourable both plants.—G. JEKYLL.

Delicate Roses, 1908-9.—In the extract THE GARDEN for May 14 from the Journal of he Royal Horticultural Society in reference to he tenderness of certain Roses, the heavy mor-ality experienced seems to call for some explana-on. May I ask whether the plants were earthed p according to the customary practice of most rowers at the present day? If not, surely the jury and deaths that occurred to the Roses entioned would be a sufficient argument in favour the practice, although I know it is condemned some individuals. My experience has been stinctly in favour of the practice, and it well pays one for the trouble. Burnt earth and hes make good material which may be after-ards spread down to fertilise the soil, but ordinary rth will do if in a nice loose condition. To earth the Roses with big lumps of clay would, of urse, be useless; but a shovelful or two at the se of each plant would without a doubt have ved many from injury by frost upon those growths ried in the soil. I well remember reading about e planting of these Roses at Wisley, and it would interesting to know something more of their anagement, because to lose such hardy sorts as race Darling is to me a mystery. Although, I ant, some varieties do not like the Briar as a ock—at least, they do not seem to thrive upon it—is would not account for the death of some the kinds named. Then, in reference to La ance failing, as reported in the extract quoted ove, is there such a thing as the La France sease? I have seen it mentioned as being a very al thing, and one grower had a large number of nts of a new seedling which took the "La ance disease" and had to be destroyed. This cident occurred at Frankfurt, and Rose-growers uld, I am sure, feel grateful for some authorita-e statement upon the subject. Perhaps some ower of this Rose in large quantities would give his experience of its behaviour during recent ars, for I am very loth to discard this old favourite. rhaps to grow it as a wall Rose, as advised many ars ago by Mr. A. H. Gray, would solve the fficulty of its cultivation; or has it been over-opagated? As La France roots so well from ttings, why not strike one's own plants? La ance can be grown very well indeed upon its n roots, as I have frequently seen it in cottagers' rdens, and, what is more, the plants were practi-lly unpruned.—P.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

RIPE GRAPES.—Houses containing these must be kept as cool as possible, and the borders not allowed to get dry. The ventilators should be left open at night, and nets placed over them to prevent the birds getting in.

Peaches and Nectarines.—Ripening fruits must be examined daily and picked when found to leave the growth easily. A light shading during bright weather will prolong their season, and also prevent the buds on the young wood from getting dry. As soon as the trees are cleared of fruit, the old wood may be cut out and the young growths tied up in their places.

Figs in Pots.—By this time the second crop should be well advanced, and plenty of nourishment will be necessary to obtain good results. The top-dressing must not be allowed to get dry, and frequent watering will be necessary, as the soil on the top of the pots is naturally full of roots.

PLANTS UNDER GLASS.

Chinese Primulas.—These will do much better now if stood out in cold frames, where they may remain till they are housed in September. Primulas are very partial to the night dews, and as soon as they become accustomed to the change of quarters the lights should be removed on calm nights, giving the plants the full benefit of the night air. They must not be exposed to heavy rains, as too much wet will cause them to rot off. A light shading is necessary during bright weather.

Malmaison Carnations.—As these finish flowering the stems should be cut out, and plants required for layering stood in cold frames in readiness for the operation. The oldest plants are usually selected for this, and the young ones potted on if required for another season.

Cyclamen.—The old corms that have been resting may now be shaken out and repotted. Most of the old soil should be carefully removed from the roots to allow ample room for fresh. Avoid too large a pot at first; they can easily be potted on as they make root growth. A cold frame is the most suitable place for them during the summer.

ROSE GARDEN.

Climbing Roses.—These should be encouraged to make vigorous new growth to take the place of the old flowering wood. Such varieties as Lady Gay, Dorothy Perkins, Crimson Rambler and Dawson Rose flower so much better on young wood. A good top-dressing of rich manure assists the growths, and copious waterings during dry weather are necessary. The growths should be loosely tied in to prevent the wind from breaking them off. The best results are obtained by taking the plant off its support as soon as it has finished flowering. The growths can be spread out, and as much of the old wood cut out as can be spared. If the plant has sufficient young growth to cover its allotted space, then all the old wood may be cut away. In many cases there is not enough; therefore some of the old has to be left. When the pruning is completed, the plant should be tied up in its place again and syringed with quassia extract a few times to stop green fly. Raffiatape will be found the best tying material for iron arches, and soft tarred string for wooden pillars.

E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

ZONAL PELARGONIUMS.—If properly managed, these accommodating plants will give a fine display during late autumn, when their brightly coloured blossoms are most welcome. Young plants that were rooted last autumn or in the past spring will now be in suitable condition for a shift into their flowering pots. Large pots are not desirable, those 5½ inches in diameter being suitable, while very strong plants may have 6-inch pots. A good substantial compost is necessary, but too rich soil must be avoided. Good sound loam three parts, leaf-mould one part, and half a part of coarse sand are excellent. A dash of ground bones and some wood-ashes may be added if desired, but no farmyard manure of any kind. Pot very firmly, as the main point in successful Pelargonium culture for autumn blooming is sturdy, short-jointed growth. Stand the plants in a frame with an open, sunny aspect, and water carefully until the pots are well filled with roots. By the end of July remove the sashes altogether, and do not over-water. Remove all flowers as they appear and give very gentle feeding, a slight top-dressing of an approved chemical mixture being the best method of applying this.

Standing Plants Outside.—Many greenhouse plants do admirably out of doors for the next three months, and if they have made proper growth, the sooner they are placed outside the better. The majority of such plants do best in partial shade, and must be carefully tended with water. The most important of the plants that are best outside are Azaleas, Camellias, the hardier Heaths, Vallotas, Acacias, Genistas and Clivias.

FLOWER GARDEN.

Climbing Plants.—These are in full growth now, and will require an occasional inspection so that shoots do not get broken or otherwise damaged. If any tying required is done before the shoots get intertwined, the work will be easier and the result in every way superior. Look out for insects on Roses and other climbing plants, and take prompt measures to destroy them. Many of the plants that are planted against walls are apt to suffer from drought, and so a good drenching should be given occasionally. Very often, too, the soil near houses and walls is very poor, and when this is the case a regular supply of liquid manure should be given, which will work wonders.

Sweet Peas.—No plant is more susceptible to dryness at the root than the Sweet Pea, and as it takes very large supplies of moisture to sustain it while in full growth, the watering-can must always be at hand to give this valuable plant its dues. Even in showery weather it is liable to suffer, as the stems and foliage prevent all but the heaviest rain from getting near the roots. As buds commence to show, gentle feeding may begin, but this only if the ground has not had a sufficient supply of solid manure at the proper time. It is now recognised that there is a possibility of over-feeding the Sweet Pea, so that each grower must determine for himself what his plants are likely to require in this direction.

Thinning Annuals.—Only by a rigorous thinning out of the plants can these useful and showy flowers be brought to perfection. Many of the strong-growing kinds, such as Lavatera, annual Chrysanthemum and Malope, may be from 12 inches to 18 inches apart, and will be all the better for it. The first thinning should only be partial, as slugs often do a lot of harm when the seedlings are small.

C. BLAIR.

(Gardener to Seton Thomson Esq.)

Preston House, Linlithgow

AN INTERESTING GARDEN.

HELIGAN, CORNWALL.

THE Tree Ferns shown in the accompanying illustration are just a few of the many that abound in these lovely gardens. Among other good things I noticed there were Rhododendron Countess of Haddington in full bloom, Grevillea alpina in fine form, Pittosporum eugenioides in full bloom and Rhododendron calophyllum. Benthamia fragifera was planted in quantity at intervals beside the long drive (1¾ miles), and was, at the time of my visit, just coming into flower. It was at this place that the tree first flowered, and so became popular in Cornwall and the South-west. Laburnum Vossii was represented by a very fine specimen, and those intending to plant in the autumn should note that this is a great improvement on the old types, though I should not like to discard the old sorts, as they make variety. Metrosideros floribunda and the white variety were also in excellent condition.

TREE FERNS IN THE OPEN AT HELIGAN, CORNWALL.

A fine plant of Fitzroya patagonica attracted much attention; Clianthus puniceus and its variety alba were in full bloom on the walls; and Brachysema lanceolata was in splendid condition. Then there was Hoheria populnea, a mass of white feathery flowers and the tree fully 20 feet to 25 feet high. Camellia reticulata on a wall of great height was a mass of flower, and I should think it is quite the finest plant in the country, and perhaps in the world. Rhododendron Boothii, 6 feet to 7 feet high and a perfect plant, was well budded. This is a very distinct form of Rhododendron, and has peculiar flat yellow flowers after the type of R. camelliæflorum, another little-known species which does well with us here.

Among other interesting plants noted were a splendid tree of Pinus Buonaparte, which I think is the finest in the British Isles; superb examples of Magnolia Watsonii and parviflora; and good plants in flower of Drimys Winteri and D. aromatica. Rhododendron kingeanum was well represented by a large plant, as also was R. lindleyanum.

A rock garden has recently been made, and this was filled with a collection of rare and choice species and varieties, which make another feature at Heligan. There are a good number of rare Lilies in the ponds in the beautiful dell, which is a grand sight from the mansion. This dell is filled with Bamboos and all sorts of choice trees and shrubs. The owner has a great affection for his garden, and takes more than ordinary interest in all that is going on, which is of such great assistance to the gardener in charge, as it is then that an employer realises the amount of work that is necessary in looking after and keeping in good condition large and rare collections of plants.

Leonardslee Gardens. W. A. COOK.

THE KITCHEN GARDEN.

LATE PEAS.

AMONG the very best Peas I have grown for a late supply are Ne Plus Ultra, Autocrat and Gladstone. The latter last season produced excellent pods till very late in the season, and the quality was all that could be desired. We generally make our last sowing about June 20, and with extra attention in dry weather these should produce Peas till cut by the frost. For early crops the land need not receive the same amount of preparation as is the case for late supplies. The soil for the latter must be deeply cultivated and the plants well supplied in hot weather with water both at the roots and overhead, for if once the plants receive a check through lack of moisture, it is rarely they recover satisfactorily. Early mulching when manure is plentiful will greatly assist the plants to withstand drought, and if the land is deeply worked so that the roots travel a fairly good depth below the surface, better results will follow. It is also very essential to syringe at intervals with quassia extract or some other approved insecticide to keep down thrips, which, it is needless to remark, are most destructive to the young leading growth and the crop generally.

CHICORY AND ITS CULTURE

DURING the winter months, when Lettuce and Endive are none too plentiful, well-blanched leaves of Chicory form a capital substitute for salad purposes. I have grown the Witloof and Sutton's Christmas Salad for many years, and find both varieties excellent. They should be extensively grown where winter salads are in constant demand. The seed ought to be sown in May or the early part of June in rows 12 inches to 15 inches apar on well-prepared soil, deeply trenched and i good condition. When large enough, thin out th plants to 8 inches or 9 inches apart and keep th soil for some time freely hoed between the row so that the crowns may have every chance t develop.

In the autumn the roots can be lifted at interva with the aid of a fork in sufficient numbers to mee the demand, plant them closely together in larg pots or boxes, and stand them in a dark place wit sufficient warmth to encourage free growth. It marvellous how quickly the new leaves are produce and what an amount of salading is obtainabl from a few roots. Like all other vegetables, given a little extra care and attention at the prope time, Chicory more than pays for the trouble good supplies being obtainable from November t May.

THE TURNIP FLEA-BEETLE.

IN some seasons this destructive pest gives a grea deal of trouble, destroying whole breadths of youn seedling Turnips and other vegetables as fast a they appear above the soil. Frequent dusting of soot and wood-ashes along the rows when th tiny leaves are wet with dew will in some instance help to keep the insects in check; but even wit this treatment they will sometimes prove too muc for us. I have syringed along the rows wit quassia extract and paraffin emulsions, and followe this with a heavy dusting of soot and ashes; an still they have attacked the leaves. Constantl moving the soil between the rows with the aid o a Dutch hoe greatly helps to dislodge them, an proves almost as effectual as the above remedies Quick growth is most essential, and this in dr weather should be induced by keeping the soi along the rows moist and the hoe in constant use To keep up a constant supply of sweet, tende Turnips, small sowings should be made at shor intervals, selecting for summer use a cool position the soil to be rich, well worked and rather firm than otherwise. Poor soil produces stringy, ho roots. There are numerous varieties that ar excellent in every way, white ones being as a rul preferable, but personally I like a yellow-fleshed variety. H. MARKHAM.

JOHN PARKINSON.

(*Continued from page 289.*)

THE first, and for the gardener the most important, work that John Parkinson published was his "Paradisi in sole Paradisus Terrestris, or a Garden o all sorts of pleasant flowers which our English ayre will permit to be nourished up: with a kitchen garden of all manner of herbes rootes, and fruites for meate or sauce used with us and an Orchard of all sortes of fruit bearing Trees and shrubbes fit for our land, together with the right ordering planting and preserving of them and their uses and vertues." This appeared in 1629. I believe a second edition appeared in 1656, after the death of the author, but I have never come across it myself. There was an exact reprint published in 1904 by Messrs. Methuen and Co. This is the edition I have. For all practical purposes it is as good as that of 1629, and a great deal cheaper; for whereas a good and clean copy of the first edition costs from £25 to £30, the reprint may be had at about £3 or £4.

It must not be supposed that this work was the first that was published about gardening. Anthony Fitzherbert brought out his "Booke of Husbandrie" in 1534, and devoted a certain part of it to purely horticultural matters. "The Paradise

of Flora" was published in 1600 or 1608, and is probably by Sir Hugh Platt, "the most ingenious husbandman of the age he lived in." It is, I believe, the same book that was issued after Platt's death by a kinsman, Charles Bellingham, in 1657. It is a small (12mo) book, and consists of 136 items on points of gardening practice, and concludes with "a conceit of that delicate knight, Sir Francis Carew," who once, when he entertained Queen Elizabeth, covered a Cherry tree with canvas and kept the fruit from ripening until such time as she paid her visit, which was one whole month "after Cherries had taken their farewell of England." One Thomas Hill, or, as he sometimes seems to have called himself after the quaint fashion of his times, "Didymus Mountain," wrote the "Profitable Art of Gardening" in 1563, a work which contained a "Treatise on the Arte of Graffing and planting of trees," and which must have been very highly thought of, as numerous editions were issued until the end of the century.

Books about orchards and fruit trees seem to have been fairly common just about 1600. Some were translations from some foreign language, as Leonard Maschal's and Barnaby Googe's; others seem to have been original, like William Lawson's and Ralph Austen's. In fact, to sum up, about the period when Parkinson was compiling his great work, gardening books were fairly common, but none covered anything approaching the same extent of ground which his "Paradisus" did. How great that was we can gather from the somewhat lengthy title to the work, which I have already quoted. There is no doubt that it gives "the most compleat view of the extent of the English garden at the beginning of the seventeenth century."

The change from that time to our own in horticultural matters has been very great. If we take such a book as "The Century Book of Gardening," which I think I may fairly describe as a very excellent up-to-date work on all that pertains to the modern garden (flowers, trees and shrubs, vegetables, fruit trees and lawns), and compare it with "old Parkinson," we at once see the alteration between his days and our own. The discovery of new lands and improved means of communication between different countries; the much greater knowledge of botany, with its corollary, the greater knowledge of plant-life; the immense strides that have taken place in heating, from the old hot-beds, houses for greens and hollow walls, to the splendid forcing-pits, conservatories, stoves and vineries and orchard houses that we have now come to regard as mere commonplaces in high-class gardening; and, lastly, the new science of hybridising and the still newer one of genetics have each in turn, with an ever-accumulating force, tended to bring about the marvellous transformation.

Every Rose has its thorn, and, if I may venture to slightly alter the words of our Poet Laureate,

"Not wholly in this modern way, nor quite,
Beyond it, blooms the garden that I love"

is the feeling that stirs in certain breasts as they see the flowers that their grandfathers and grandmothers must have known and loved thrown on one side and neglected. Readers who do not know the charming little book, "Mary's Meadow," which was the last serial that Mrs. Ewing wrote, should get it. They will learn from Mrs. Gatty's preface how the game of the Earthly Paradise suggested in its pages "caught on"; how a "Parkinson" Society was formed, among other things "to search out and cultivate old garden flowers which have become scarce," and how for a time at least the society flourished. This is very interesting, and it is just what should be, for "the queer old book" that so fascinated Mary in the tale will fascinate many more and give them a wish to see and grow the old plants that are figured and described in its pages.

Before I pass on to give a very brief *resume* of the contents, I must say a few words about the illustration that I have chosen to accompany this short paper. Most writers would probably have selected the picture of the Garden of Eden with Adam and Eve and the Vegetable Lamb and the giant Cyclamen and the monster Tulip and the Tree of Knowledge that Eve seems to have neglected on this occasion for a Pine; or was it a Pine-apple that she gathered? As it is, comparatively speaking, well known, I have chosen one of the Anemone plates.

ANEMONES FROM PARKINSON'S "PARADISUS."

The Anemone at the time when Parkinson published the "Paradisus" was a comparatively new plant, as the following dates show. A. coronaria and sylvestris were introduced in 1596, palmata and trifolia in 1597, and stellata (hortensis) in 1599. There were, of course, even before Gerard's time, Anemones grown; he himself had twelve kinds, but they would be mostly native varieties. The influx of these new kinds must have created a profound impression upon gardeners, and they probably looked on them with something of the same wonder and delight with which the generation before them had greeted the Tulip. As our author says of it, "this one kinde of flower is of itselfe alone almost sufficient to furnish a garden with their flowers for almost halfe the yeare." I have searched all the books at my disposal, and I have never been able to find that there has been an Anemone "rage," or that it has ever taken rank as a "florist's flower." It seems strange why this is so, for, speaking as one to whom an Anemone is only an Anemone, it would appear to be just the flower for the purpose. Perhaps it will come. Perhaps my friends Messrs. Gilbert and Sons will induce the great "G. P." or a small and select body of enthusiasts to take up its culture and to form Anemone societies and possibly to hold an Anemone show. It is a fine flower, and it seems to me that its usefulness has never yet been appreciated.

"PARADISI IN SOLE PARADISUS TERRESTRIS."

So runs the Latin title of the book. Many will puzzle their brains to understand its meaning. They need not do so. Like most things, it is very simple when it is explained. It is only another instance of the fashionable and quaint practice of the time. Parkinson has put his own name into Latin—a little doggy, it is true—and this is what it is: Paradisi—of a park, and in sole—in the sun. Paradisi in sole Paradisus terrestris means Park in-son's Earthly Paradise!

There are 109 illustrations of fruits and flowers They were made in England, and must have been one of the last sets of wooden blocks made, as the last set of which there is any record were those made and used for Salmon's "Herbal" in 1710. A good many varieties are shown on each plate, but as they are all numbered and as there is an index at the bottom of each, there is no difficulty in recognising each one.

Agreeably to the long title, the book is divided into three parts—flower garden, kitchen garden and orchard. Each one opens with a series of introductory chapters on the position, soil and arrangement best suited to it, and on the cultivation and propagation of the inmates. Then a list follows of the kinds to be grown in each. I could say much that I think would be of interest about the inside of Parkinson's "Paradisus." Some day, perhaps, the Editor will allow me to return to this fascinating subject. JOSEPH JACOB.

THE GREENHOUSE.

FLOWERING CANNAS IN THE GREENHOUSE.

THERE are very few greenhouse plants that will keep up such a display of blossoms as the dwarf, large-flowering race of Cannas, and for indoor decoration from spring to autumn hey have much to recommend them. Apart from any other consideration, the foliage is remarkably handsome, in some instances of various shades of bronze and in others of a delightful green tint. These Cannas are seen at their

best when disposed in a group on the floor, as then the beauty both of leaves and flowers is fully displayed. In addition to their other desirable qualities they are all of easy culture, and good examples may be grown in pots from 6 inches to 10 inches in diameter. Even larger specimens may be obtained, but for general decorative purposes pots 10 inches across are sufficient. Cannas are also of great service for bedding purposes, while when grown in tubs they are extremely useful for standing out of doors during the summer months.

It is, however, as desirable subjects for the embellishment of the greenhouse that my note particularly refers to them. Anyone desirous of taking up their culture may begin at any time, though in the winter the dormant rhizomes can be sent by post at a much cheaper rate than is charged by rail for growing plants at this season. These last are generally sent out in pots from 4 inches to 5 inches in diameter, and are well furnished with roots. They should immediately on receipt be shifted into larger pots, the size of which will depend upon the vigour of the plants. It is essential to bear in mind that they are liberal feeders, hence a very suitable compost may be formed of two parts loam to one part well-decayed manure, with a sprinkling of sand. As the roots take possession of the new soil, which they will do in a short time, occasional doses of liquid manure will be very beneficial. In the case of dormant rhizomes received during the winter, they should be potted on receipt, taking care that the growing point of the rhizome is brought as near the centre of the pot as possible. The point should also be just below the surface of the soil, as the most vigorous roots are pushed out immediately below the new growth.

There are now so many named varieties of Cannas that for greenhouse decoration these are most generally grown. Seed saved from a good collection will, however, give many fine forms, and, of course, the raising of seedlings, in which the pleasures of anticipation can be indulged, is always interesting. The seeds of Cannas are remarkably hard, hence the popular name of India-Shot which is applied to them. In order to assist germination some recommend that the seeds be filed in order to thin down the horn-like envelope; but I prefer to soak them for about twenty-four hours in warm water before sowing. One particular caution to be observed is that after seeds have been treated in this way, they must on no account be allowed to become dry afterwards. In the case of the seed being sown early in the year, the young plants, if grown on freely, will flower towards the end of the summer.

As the varieties of Cannas now in cultivation are so numerous and individual tastes vary to such an extent, it is quite impossible to make a selection that will suit everyone, but the following varieties are all good: Alphonse Bouvier, deep crimson; Black Prince, velvety maroon; Duchess of Marlborough, rose pink; Duke of Marlborough, chestnut red; Edouard Mieg, crimson scarlet; Florence Vaughan, bright yellow, heavily spotted scarlet; Hofgartendirector Wendland, red, dotted yellow; Jean Tissot, rich vermilion; Kaiser Wilhelm II., scarlet; Klondyke, orange; Konigin Charlotte, red, edged gold; L. E. Bally, light yellow, spotted maroon; Martha Washington, pink; M. Florent Panwels, reddish orange; Mrs. Kate Gray, orange scarlet; Mrs. G. A. Strohlein, amaranth red; Meteor, bright scarlet; Oscar Dannacker, bright orange; Niagara, red, edged yellow; Papa Crozy, orange scarlet; Paul Bert, amber; Paul Sigrist, crimson, edged yellow; Sophie Buchner, vermilion red; and Aurea, golden yellow.

H. P.

THE MOUNTAIN SANDWORT, ARENARIA MONTANA, IN AN ESSEX GARDEN.

SPARMANNIA AFRICANA.

THIS old greenhouse evergreen shrub deserves to be more extensively grown than it is at the present time. In my early gardening days we had some grand specimens in a large garden in the North Midlands, and we were rarely without blossom throughout the winter months. The plants were placed in the open air during the summer, and taken back to the greenhouse in September. The young wood had matured, and consequently from that month until the end of the following spring we were enabled to rely upon the plants for a supply of cut flowers. If the plants are retained in the greenhouse the whole year round they will blossom in the summer-time, but not very freely in the winter. It is highly important that the plants, if kept in the greenhouse in summer as well as winter, be well exposed to the light and sunshine.

B.

THE FLOWER GARDEN

THE MOUNTAIN SANDWORT.

(ARENARIA MONTANA.)

AMONG the prettiest flowers of the roc garden and the front and edgings the border in the "flowery month of May, and for a considerable ti afterwards, is Arenaria montana, illustration of which appears her with. It is one of the flowers which comma universal admiration when in bloom, and should more widely cultivated than at present. It form a mass of neat leaves, trailing and creeping ov banks and stones, and is almost literally cover with large white flowers for a considerable tim It is perfectly hardy, but there are a few garde in which it seems a little difficult to establish.

In a former garden owned by the writer th Mountain Sandwort proved extremely trouble some to establish, and never grew with any re freedom. It appeared to object to a dry an sandy soil, and was poor in every way compare with its condition in his present garden. Althoug it flourishes well up on a rockery, it seems to lik a considerable amount of moisture at the roots and my best plants are low down on the rockeries where they spread in a rapid manner and flowe very freely. A. montana may be planted at any time, save when in flower or in the depth of winter and plenty of porous stones should be placed i the soil and about the plant. Among these i will soon creep and increase, covering the stone with a mantle of green, and with beautiful whit flowers in their season.

There is a slightly larger-flowered form named grandiflora, but this does not flower with me s densely as the ordinary A. montana. The Mountai Sandwort differs greatly from the favourite A balearica, the Balearic Sandwort, and is larger i all its parts. Partial shade seems to suit it bes with me, but it is not specially fastidious in m present garden, where the soil is mainly loam.

S. ARNOTT.

[The plant illustrated is growing in an Esse garden in ordinary loam, and measures 2 feet i diameter. It has been in its present position fo fifteen months.—ED.]

SWEET PEA CHAT.

COMING CONTESTS.—We are now well within sight and sound of many contests in the Sweet Pea world, and it is to be hoped that all will be fought in the friendliest and, at the same time, the keenest spirit. The man who cannot fight and lose without displaying his temper, either with his opponents or the judges, should never exhibit flowers, which must always be surrounded with an atmosphere o rivalry, if you will, but also of peace. It is indisputable that the culture of flowers tends t bring out what is pure and good in a man, but unfortunately, exhibiting seems, at times, to have the reverse and peculiarly objectionable effect. The evil-tempered exhibitor is something by way of being a curse to the managers of the show, his fellow-exhibitors and to the visitors, since he can never see anything aright which does not place him at the top of the tree. Happily there are few such individuals in the Sweet Pea world, but they are not unknown, and if they were to pass out of it at once, no person or society would be the loser; this is not likely to occur, however, as the man who is a real nuisance is usually a rare sticker.

As far as London and its suburbs are concerned, the greatest interest naturally centres around the gathering of the giants at the National Sweet Pea Society's Show at the Royal Horticultural Hall, Vincent Square, on Tuesday and Wednesday,

12 and 13. Already speculations are rife as ho will be the champion of the year, and en-iastic growers have been paying one another berless visits to estimate respective strengths, the sensible ones neither count their winnings expound their certainties until after the event. they quietly affirm that they knew it all g!

the way, are there any Sweet Pea readers HE GARDEN who have not yet joined the onal Society? If so I should like to urge to make good their error before the end of month. If this is done they will not only ve tickets of admission to the show, which ndoubtedly be one of the most charming and tic that has ever been seen in hall, but they will, if they it, be entitled to compete in cified number of classes with-paying further entrance fees. d inducement is found in the ledge that the publications of society come free to sub-ers, and no one will gainsay when I assert that these are worth having. A post-card to C. H. Curtis, Adelaide Road, tford, Middlesex, will bring articulars promptly. Members he society must bear in mind late of entering, as there will crowd, and late comers will a poor chance of being oted. The trophies for com-ion amount to well over £100 ng in value, and it would be y to miss a share owing to astination, which the copy-s tell us is always a sin.

is quite impossible to refer e immense number of shows will be held in various parts e country. Nowadays prac-y every little society has a t Pea section, and although rizes are often very small, the etition is generally good, and excellent blooms are staged. at many of such gatherings wretchedly bad judging is , the adjudicators appearing ink that size is the only meri-us feature in the Sweet Pea, as it is commonly its very point. Let us hope that the will soon be with us when the ng will be done on a clearly d standard basis. At the lid provincial gatherings, such Volverhampton, Shrewsbury, ff, Luton and others, matters of course, different. It is ble, but whether it is possible he matter to be arranged I d not like to say, that all societies affiliated the "National" should employ judges recom-ed by the parent body, as this would go far revent National Sweet Pea Society medals he handsome certificates, that are in evidence year for the first time, being awarded to s that are floppy and unwieldy, and as nearly as anything that is a Sweet Pea can possibly It was apparent what Mr. Alexander Malcolm, whom no one in the Sweet Pea world is more respected as a grower, exhibitor or judge, ht of coarse flowers at one big show last for he passed them and went for quality Quite right, too, but some of the exhibitors t think so.

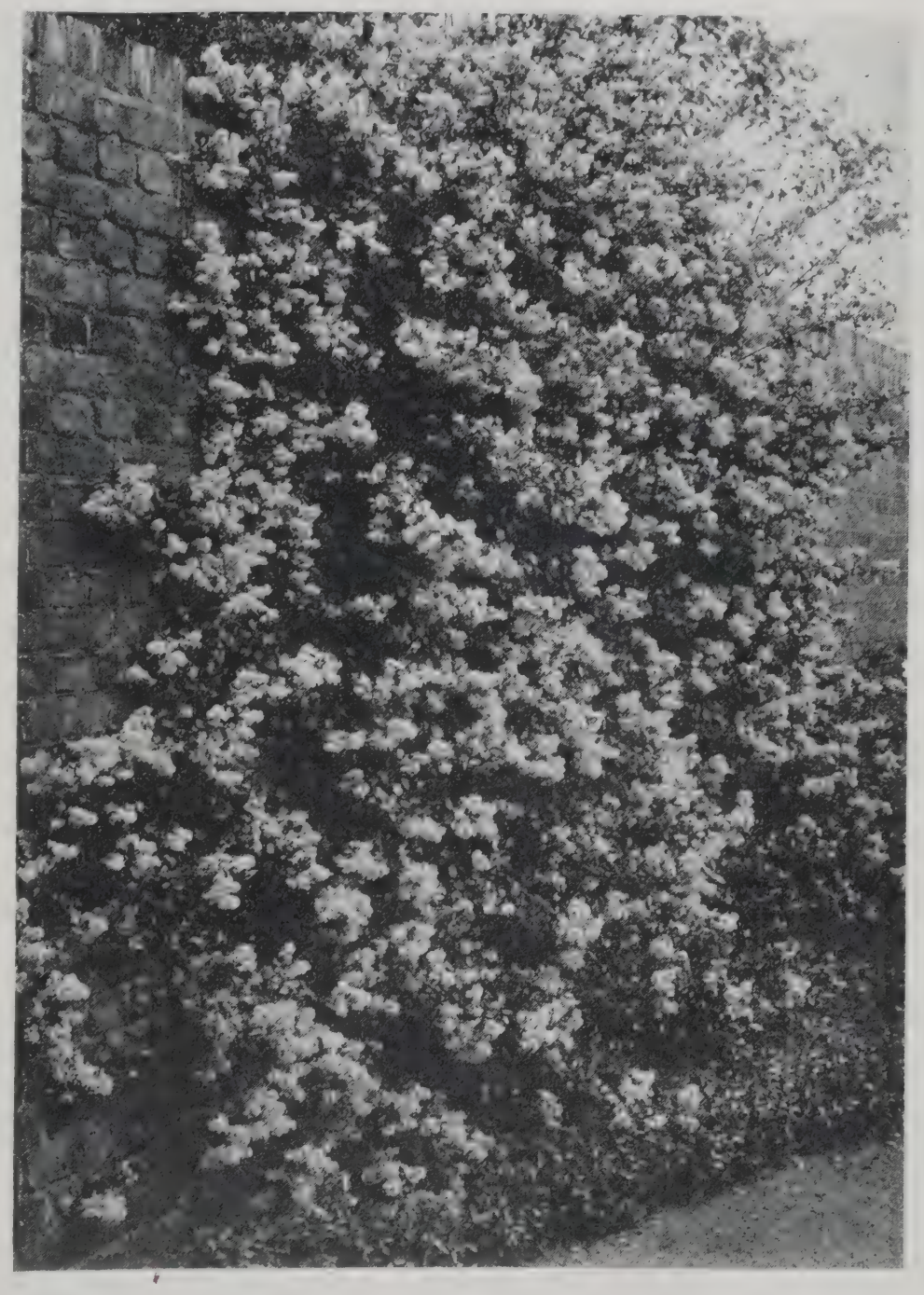
SPENCER.

COLOURED PLATE.

PLATE 1402.

THE VIOLETTAS

THE Violettas, or Miniature Tufted Pansies as they are frequently called, are charming plants for various positions in the garden, the fronts of borders and the cooler nooks of the rock garden suiting them to perfection. During the last few years a great many new and excellent varieties have been raised, and those shown in the accompanying coloured plate may be taken as typical of the race. The flowers from which the coloured plate was prepared were kindly supplied by Mr. D. B. Crane, 4, Woodview Terrace, Archway Road, Highgate, N. Mr. Crane has for many years made a speciality of these plants, and the exhibits staged by his son, Mr. Howard Crane, at the principal London shows will be familiar to many of our readers. Many new varieties have been raised at Highgate, the greatest improvements being found in the yellow selfs. The plants are best left undisturbed for two or three years, when they form large tufted masses that are covered with the sweetly scented flowers for several months during the summer. Their parents in the first place were said to be the garden Pansies crossed with Viola cornuta, a native of the Pyrenees.



THE CALIFORNIAN LILAC (CEANOTHUS THYRSIFLORUS) AS A WALL PLANT.

TREES AND SHRUBS.

CEANOTHUS THYRSIFLORUS.

IN the accompanying illustration the usefulness of the Californian Lilac (Ceanothus thyrsiflorus) and its near relatives for growing against walls is clearly seen, while for the warmer parts of the country they are desirable shrubs for the open ground. C. thyrsiflorus is one of the hardiest of the early flowering species, and at Kew a fine group of plants is to be seen at a short distance from the Palace. This group was very much larger a few years ago, but was then badly damaged by wind. The remaining plants, however, serve to show that the species will attain a height of 18 feet with a considerable spread in the open ground, while, being of evergreen character, it adds variety to the garden in winter. As is the case with several other species, the flowers are blue; but in the case of the plant here illustrated the flowers are pale mauve, which stamps it as being, at any rate, a distinct form from the type. Like many of the other Ceanothuses, cuttings of this may be rooted during summer if inserted in sandy soil in a little heat. It is inadvisable to plant young examples in nursery quarters previous to placing them in permanent positions, for they transplant badly. The specimen shown is growing in the newly opened grounds of the British Forestry Museum at Kew.

MAGNOLIA FUSCATA.

A SHOOT of the above sent to me to name recalled the plants of years ago, before soft-wooded plants were so much in demand and many beautiful and interesting things grown for their beauty or fragrance dropped out of cultivation. The Magnolia named was never very extensively grown, but single specimens were to be found occasionally as a pot or wall plant and prized for the very powerful perfume. A solitary flower will be noted several yards from the house in which it is growing, a power which certainly owes nothing to the size of flower, which in its bud stage is not much larger than a Filbert. It is an evergreen with thin, wiry wood nearly covered with a brown tomentum, and small leaves about 1½ inches long and proportionately broad. The flower is quickly over if left on the plant, but if nipped off at the bud stage will last a long time in water, although the scent, agreeable as it is, is perhaps rather too powerful for the dwelling-house. The plant has the reputation of very slow growth, and this is doubtless true so far as pot culture is concerned; but when planted out it makes very fair headway, shoots from 6 inches to 8 inches long being often annually made. I have never seen it outside in England; possibly it might do in the most favoured spots. A suitable compost, either in pots or when planted out, is three parts light loam, one of peat, or, failing the latter, good leaf-soil with a dash of silver sand.

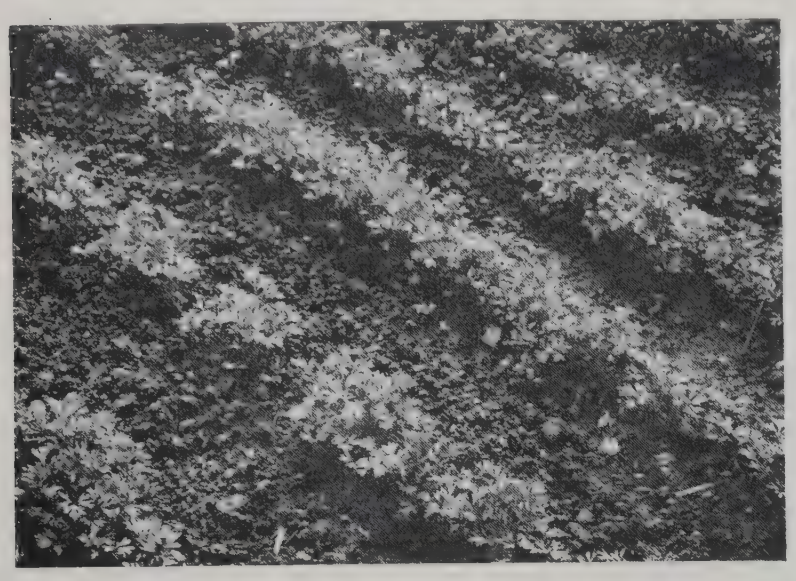
A. G. B.

GARDENING FOR BEGINNERS.

HOW TO THIN CARROTS AND STAKE RUNNER BEANS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—It is advisable to raise a good batch of Endive plants now, so no time should be lost in putting in the seeds. The position for the seed-bed should be an open one; the soil must be deeply dug and moderately enriched with well-rotted manure. If of a light nature, the ground ought to be well firmed before the seeds are sown, and if dry watered through a rosed watering-can. Sow the seeds very thinly, cover them lightly with dry soil, and do not water the surface. Another sowing of Dwarf Beans must be made this week to form a succession; these Runner Beans and Peas are always welcome, and if seeds are sown at the right time there will be no break in the supply. The Dwarf Bean seeds must be sown in an open quarter at this season; avoid hot, south borders, as the plants so soon fall a prey to red spider. I like to sow the seeds in rows 18 inches apart. If the soil is poor, it must be enriched with manure. Germination of the seeds is quick, even in dry soils, when some water is poured into the drills before they are sown; cover with dry soil and do not water afterwards. The more forward crops which are just commencing to flower must be freely mulched, covering the whole of the ground between the rows with half-rotted manure. The Leek trenches for main crops of plants must be prepared at once, and early planted Leeks for any special purpose should be well watered in dry weather, but not with liquid manure yet.



1.—SEEDLING CARROTS BEFORE THINNING HAS BEEN DONE. NOTE HOW THICK THEY ARE.

Flower Garden.—Border Carnations are now producing flowering spikes freely, and those not yet supported must have some neat, green-painted stakes fixed to them. If the work is well done, a minimum number of stakes will be sufficient to support a maximum number of flowers. The surface soil between the plants should be hoed frequently, also that between herbaceous plants generally. Weeds and faded leaves must never be allowed to remain for many hours on such borders, else they will present an untidy appearance, and neglected borders spoil the general appearance of any garden. The staking of herbaceous plants must be attended to. In carrying out the work the cultivator should leave the natural habit of each kind of plant as unaltered as possible. It is a mistake to gather up the flowering stems into a bundle, as it were, and to fasten them tightly to one stake. Directly the flowers of Pyrethrums have faded, the stems should be cut down and the plants mulched and fed with weak doses of liquid manure. During the latter part of the summer and the early part of the autumn the plants will again bear a good crop of blossom. There should be a general clearing up when the work of bedding-out is finished. Empty pots, crocks and other material must all be put away, and special care taken to clear up stones and potsherds from the lawn around the beds so as to avoid damage to the mowing-machine.

Fruit Garden.—Peach, Nectarine, Apricot and Plum trees trained on walls must receive due attention. Surplus shoots should be pinched off at one joint from the branch; these surplus shoots are lateral growths, and if left would cause overcrowding and prevent the proper ripening of the main shoots of the current year's growth. These remarks apply to Peaches and Nectarines. With regard to Apricots and Plums, those tender young shoots growing from spurs straight out from the wall should be pinched back to four buds from the base, and as laterals again form on the ends, also remove them in due course. All the wall trees must be thoroughly syringed with clean water so as to dislodge insect pests and dust.

Greenhouse and Frames.—The present is a very trying time of the year for Roses under glass, as the atmosphere is apt to become too dry for them, and then red spider attacks the foliage. As there are now plenty of blooms available in the garden, the trees under glass should be rested—that is, given abundance of air, syringed occasionally with soapy water, weakly shoots cut away and generally be prepared for bearing a nice crop of flowers later on. To this end keep the young shoots thoroughly clean and feed the plants. Eupatoriums and Libonias are lovely autumn and winter flowering plants, and should not be allowed to become pot-bound at this season. Repot them and place in cold frames, and at the end of a week or so open the lights wide night and day. A. A.

THINNING SEEDLING CARROTS.

AT this period of the year the beginner in the cultivation of vegetables will find plenty of work to keep him engaged if justice is to be done to the different subjects under his care. In no section is the work more important than that of the vegetable garden. Here quite a number of seedling vegetables will require immediate attention if the ultimate result is to equal the grower's expectations. Foremost in this connection may be mentioned Carrots, Parsnips, Onions, Beetroot and Turnips. Each of these should be taken in hand forthwith, if not dealt with already, and in a few the respective crops will show their appreciation this attention by vigorous and satisfactory g

In the case of the Carrot, I have endeavou portray the beds both before and after thi In Fig. 1 the reader will note the seeds have sown thickly, and, in consequence, the see give evidence of being very considerably cro rendering the thinning-out process all the difficult. We are sometimes told to comm the thinning of Carrots when the see are a few inches high; but I am dispos deal with them before this, because the r are so much more satisfactory when this w done earlier in the history of the young p I prefer to partially thin the plants as soon as are in the rough leaf, subsequently thinnin superfluous plants a little later, when the char of those retained can be better determined.

Immediately subsequent to the thinning Dutch hoe should be frequently used, sti the soil between the rows of plants, in this aerating the soil and, at the same time, keepin weeds under. When the thinning of Ca is unduly delayed, the young plants become d and weakly, and the roots ultimately will be f distorted and irregular in shape. At the thinning long-rooted Carrots should be left a 4 inches apart; intermediate, 3 inches; and stu rooted or Shorthorn sorts about 2 inches asu When real progress is noted later on, thin ou long-rooted to 8 inches apart, intermediat 6 inches, and the stump-rooted to about 4 in In Fig. 2 a section of a bed of Carrots that have carefully thinned is shown. D. B.

STAKING RUNNER BEANS.

THE want of method and common-sense us noticeable in the gardens of the inexperie vegetable-grower who aims at producing a r good crop of Runner Beans is often most obv few of them appearing to regard the char of growth peculiar to these plants, and failin

2.—SEEDLING CARROTS AFTER THINNING HAS BEEN DON NOTE THAT EACH PLANT STANDS ALONE.

do justice to them in consequence. There very few gardens where Runner Beans are grown, and for this reason it may be well to l out how the staking of these plants shoul done, so that ample provision may be mad their rambling growths to receive adequate sup when they need it.

THE WRONG METHOD OF STAKING RUNNER BEANS. THE SUPPORTS HAVE BEEN PLACED TOO CLOSE TOGETHER.

ll too often the plants are set out much too kly, or, it may be, the seeds have been sown rodigal fashion at an earlier date. Whichever be the case, it is a mistake to sow or plant kly. There should be one seed or seedling to stake. When done in any other way the lt is most unsatisfactory. How often one sees plants thickly disposed in the row and a large ber of thin and short stakes inserted for their port. Within a very short space of time the ths of the Runner Beans will reach the top hese short, weak stakes, and the only thing can then take place is for the weak heads of stakes and their over-vigorous growths to topple , so that cropping facilities are checked.

Fig. 3 the wrong method of staking is shown. this instance the stakes are not more than t in height and the heads of the stakes are turned rds at the top. The stakes are also inserted close to the plants at their base; in such litions the results can never be satisfactory. each the beginner how he should do the work, w of plants properly staked is shown in Fig 4, ough even this might be improved upon. A ful observation of the base of the stakes will al one stake allotted to each plant. In this way quite a simple matter to encourage the plant to vine its growth around the stake inserted for upport, so that its subsequent treatment leaves e else to be done. The stakes should be from et to 10 feet in length, and if a double row of ts is grown as depicted in Fig. 4, the stakes ld be inserted at an angle on each side of the ole row. This is brought about by crossing tops of the stakes some 18 inches, more or below their apex, and to secure them in this tion either wire may be secured to the forks ugh the whole length of the row, or long, ght stakes may be tied in the same position, e being secured with stout twine. As soon as the growths have reached the tops of the stakes, they should be pinched off or cut with shears. When this is done, lateral growths are encouraged to develop and heavier crops are secured. In cases where a single row of plants is grown, use tall, stout stakes, inserting these in upright fashion and securing them to stout poles at intervals of a few yards, or strong winds in late summer may cause trouble. In dry weather mulch the rows with a heavy dressing of old hot-bed material or partially rotten manure. D. B. C.

WATERING PLANTS IN HOT WEATHER.

Plants in pots on boards and beds of ashes in the open air require water oftener than those in greenhouses and conservatories when the weather is very hot. Both the soil in the pots and the roots of the plants get quite hot, too, and if water from an underground tank, pump or pipe is used as drawn, the roots of the plants receive a chill, and, in this way, the foliage and flowers would be affected. In very hot weather it is essential that cold-drawn water be exposed in open vessels for a few hours before it is poured on the soil in the pots. This precaution does not really entail much extra labour, and it is labour well spent, as the plants make wonderfully fine healthy growth in the circumstances. It is for the same reason—to avoid giving a check to the growth—that water should be poured on Vine, Peach and other borders early in the morning instead of during the daytime. The soil is cooler in the morning, and the nearer the temperature of water and soil is, the less will be the risk of check to growth owing to sudden chills. B.

THE TOWN GARDEN.

Roses.—Among the most to be dreaded pests of the Rose at this season are the various forms of green fly and the caterpillar or grub which ruins leaf and bud before the amateur has realised that there is anything amiss. For the green fly and similar pests the dusting of tobacco powder over the points of the shoots or periodically spraying them with a good insecticide will usually keep them at bay, though they must not be allowed to swarm in their battalions on the points of the shoots before any action is taken to get rid of them. A very homely remedy is soft soap dissolved in boiling water, say, two or three large tablespoonfuls to two gallons of water, to which, when cooled down, half a wineglassful of paraffin should be added, When this is used care should be taken to mix the whole up together continuously, and to dip the syringe deeply into the receptacle to avoid taking all the oil at once from the surface. The maggot or grub is usually found where the leaves are drawn together, and the pest, concealing itself in a web, bores into the flower-bud before its presence is suspected. For this latter syringing or hand-picking should be resorted to, and if done early the loss of flowers will be materially lessened. The "Abol" syringe, with its uncommonly fine spraying nozzles, is excellent for the work, and where much has to be done and insecticides purchased, this convenient tool will be found most economical.

Propagating Pinks.—The hardy garden Pinks, whether of the every-day border sorts or "laced" kinds, usually grown for exhibition are readily increased by means of pipings or cuttings at the present time, a half-shaded situation where a frame can be placed, or even a bell-glass or hand-light, doing quite well for the purpose. Pipings are formed by the points of shoots, and these have to be pulled out sharply from the socket of the stem. Holding the latter with the left hand, and securing a 3-inch-long piece of the point of the shoot, give a sharp upward pull to release it from its place. Pipings such as these are ready for insertion forthwith, and require no further preparation. Cuttings are best if secured with a heel, and any moderately young shoots of 3 inches or 4 inches in length torn off the main portion of the plant by a downward pull will invariably be found with the heel intact. Some very sandy soil will be needed for the cuttings, and with a good soaking of water at the time of insertion no more will be required for days to come.

Auriculas.—The pot plants of those of the alpine class will be better if removed from the frames and stood on a bed having a north exposure, the shelter of a hedge or wall suiting the plants quite well. The pots should rest on a thick bed of coal-ashes to prevent the ingress of worms, and frequent light overhead waterings or sprayings will be found helpful. Those Auriculas with mealy foliage are best if not watered overhead, as this carries away much of their characteristic mealy covering and beauty. The plants, however, should be well supplied with water at the root. Abundance of air, too, is very essential to the success of the plants, and a good substitute for a frame is secured by raising the lights above the plants so that the wet is thrown off, the sides meanwhile, as also the back and front, remaining open.

Arum Lilies.—It is usual when these are turned out of the greenhouse each year to plant them in a trench richly manured in the kitchen garden. A simpler way, and a way that ensures an earlier supply of blooms (spathes) is to stack them in a heap for some weeks, and in such a manner that no water reaches them. In other words, so dry them off that no leafage remains. This enforced rest after a long season of flowering is not merely attended with the best results, but it saves much time in watering when this is needed elsewhere. In a subsequent issue I shall give further particulars concerning these plants. E. H. Jenkins.

4.—THE RIGHT WAY TO STAKE RUNNER BEANS.

NEW PLANTS.

ODONTIODA ST. FUSCIEN IMPERATOR.—This is a very large-flowered Odontioda of dull orange scarlet colouring, the segments being mottled and veined with creamy white. The labellum is comparatively large and most delicately fringed. The backs of the sepals have a distinctive purple band running down the centre. A very fine flower indeed, and said to be the result of crossing Cochlioda noetzliana with Odontoglossum Adrianæ. Shown by M. H. Graire, Amiens, France. Award of merit.

Miltonia vexillaria Snowflake.—As its varietal name implies, this is an almost pure white variety, with the exception of the centre of the flower. There we find a yellow blotch, with the tiny crest coloured rosy purple. So little colouring, however, is present that at a short distance the flowers give one the impression of being entirely white. Shown by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Tetbury, Gloucestershire. Award of merit.

Odontioda gattonensis.—This is a beautiful rich orange scarlet coloured variety with slight veinings of yellow. The flowers are rather loosely formed and comparatively large, the sepals and petals being slightly reflexed, this being more pronounced towards the tips. Shown by Mr. de B. Crawshay, Rosefield, Sevenoaks. Award of merit.

Sweet Pea Paradise Cerise.—A very showy variety of rosy cerise colouring, the flowers of large size. Award of merit.

Sweet Pea Marjory Hemus.—A dainty shading of soft lilac blue and white, the combination being of a pleasing character. Award of merit. These two were exhibited by Miss Hemus, Upton-on-Severn.

Sweet Pea Prince of Orange.—Briefly described, this handsome variety may be compared in size to Helen Lewis, with the colour of St. George. A most effective variety. From Mr. Stevenson, Addlestone. Award of merit.

Carnation Queen Mary.—A self border variety of crimson maroon colouring, the petals thick and firm, making up a shapely flower. The variety is nicely scented. Exhibited by Messrs. William Cutbush and Son, Highgate, N. Award of merit.

Carnation Edith Waters.—A Perpetual-flowering variety of very large size; indeed, if we refer to it from the critical standpoint, size is its chief merit, the central confused mass of small petals detracting from the merit of the flower as a whole. The colour is rosy cerise, and we believe its parents were Mrs. Lawson and Enchantress. From Mr. C. F. Waters, Balcombe. Award of merit.

Carnation Mrs. Everard Martin-Smith.—A very superior pure white border variety, the petals strong and firm and of high quality throughout the flower. From Mr. Charles Blick, Hayes, Kent. Award of merit.

Pyrethrum Snow White.—The name is descriptive of a variety of much excellence, and one which will doubtless be popular in the near future. From Messrs. Kelway and Sons, Langport. Award of merit.

Robinia Kelseyii.—A small bush-like example of this flowering tree or shrub was shown bearing a few of its pretty pink-flowered trusses. It is an exceedingly pleasing plant, and one worthy of planting with a free hand. From Messrs. R. Veitch and Son, Exeter. Award of merit.

Heliotropium Favourite.—A fragrant variety with good truss and pale blue flowers. From The King's Acre Nurseries, Hereford. Award of merit.

Clivia King George.—A distinct and pretty variety, the colour of the flowers being palest primrose and cream. Shown by Mr. Miller, Wisbech. Award of merit.

Ranunculus Evening Star.—This is one of the double self-coloured varieties of R. asiaticus, which to-day are by no means frequent. The flowers are large and handsome. The colour is deep canary yellow, paler at the margins of the petals. From Messrs. G. and A. Clark, Limited, Dover. Award of merit.

Mertensia echioides elongata.—The plant is 15 inches high, the flowers being of an intense deep gentian blue. A highly attractive plant valuable for the colour of its flowers. From Bakers, Wolverhampton. Award of merit.

Pelargonium White Queen.—A pure white variety of the Zonal section, of surpassing excellence as a flower and of great purity. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Iris hybrida Isoline.—A distinct and beautiful variety, the standards of which are rosy fawn and the falls of rosy purple hue. It is a compactly arranged flower and capable of producing pretty garden effects.

Iris Italia.—The dominating colour of this handsome variety is deep violet purple, approaching to royal purple, the falls being shaded with maroon. This pair of Irises came from Messrs. R. W. Wallace and Co., Colchester, each receiving an award of merit.

All the foregoing were shown before the Royal Horticultural Society on the 7th inst., when the awards were made.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to the Editor, 20, Tavistock Street, Covent Garden, London, W.C.

A NEW AUBRIETIA FROM WALES.

Mrs. E. Lloyd Edwards, Bryn Oerog, Llangollen, North Wales, sends sprays of the new purple Aubrietia Lloyd Edwards. No doubt many who visited the Temple Show this year will remember the wonderful mass of this plant that was shown there by Mrs. Lloyd Edwards, the rich purple colour being very striking.

EARLY ROSES FROM LEONARDSLEE.

We received from Mr. W. A. Cook, The Gardens, Leonardslee, Horsham, on the 1st inst., blooms of several Roses which were of peculiar interest owing to the early date. Mr. Cook writes: "Early Roses can be grown in odd places, on the walls of out-of-the-way buildings, or on garden walls; in fact, there are spaces very often lying idle which could be turned to good account, for most people prize the early Roses. We have had in flower for the past ten days those lovely Roses sinica anemonæflora, R. fulgida and L'Ideal, exquisite for cutting, the colour appealing to everyone. The foregoing flower very freely. Reine Olga de Wurtemburg and Carmine Pillar are also in bloom and are most effective. R. brunoniana is in flower on a fully exposed bush 20 feet to 30 feet high. R. spinosissima altaica is a lovely pure white variety, and should be grown by everyone who loves Roses. The beautiful R. Banksia is also a mass of yellow flowers partially hidden by its beautiful green foliage. Other Roses that are in flower are Niphetos and Climbing Devoniensis, both on walls. Viscountess Folkestone [illegible] that flowers early and is most useful for c[illegible] I consider that all Roses that can be flowe[illegible] the month of May are worthy of extended cu[illegible] they must, of course, be kept clean, whic[illegible] easily be done by syringing now and again [illegible] extract of quassia or XL All Insecticide[illegible] perhaps they may require a good watering [illegible] sionally. Many plants are allowed to suffer [illegible] neglect of watering when planted against wall[illegible]

SWEET PEAS FROM ADDLESTONE.

Mr. Thomas Stevenson, the well-known S[illegible] Pea grower of Woburn Place Gardens, Addles[illegible] sent us on the 31st ult. a wonderful collecti[illegible] Sweet Peas which had been cut from the [illegible] presumably from autumn-sown plants. We [illegible] never seen flowers to equal these at such an [illegible] date, and congratulate Mr. Stevenson on his e[illegible] lent method of culture. The varieties sent [illegible] Spencer America, Evelyn Hemus, Zarina, [illegible] Spencer, Prince of Asturias, Prince of Ora[illegible] Zephyr, Dazzler, Sunproof Crimson (Sydenh[illegible] strain), Mrs. C. W. Breadmore, Elsie Herb[illegible] Henry Eckford Spencer, Constance Oliver, Auc[illegible] Crier and Mrs. Hardcastle Sykes. Many of t[illegible] will be well known to our readers, but among [illegible] newer ones that named Prince of Orange called [illegible] special mention. It is a gorgeous waved flo[illegible] of large size, with a vivid orange standard [illegible] delicate rose wings. Mr. Stevenson informed [illegible] that all the flowers sent, a dozen or more spra[illegible] had been cut from one plant. Earl Spencer [illegible] beautiful orange flower; Zarina, a delicate sh[illegible] of shell pink that it is impossible to describe; [illegible] Spencer America, a waved form of the well-kn[illegible] rose flaked variety.

AZALEAS FROM WALES.

A correspondent signing himself "K. E." [illegible] sends us flowers of hardy Azaleas from Glamorg[illegible] shire. The colours of these are particularly go[illegible] and we were pleased to see the double variety am[illegible] them. Our correspondent writes: "I am sendin[illegible] bunch of Azaleas rustica flore-pleno and the old sin[illegible] ones for your table. They are so sweet and gr[illegible] so easily that it is a pity they are not more kno[illegible] Mine are growing on the north side of a pali[illegible] and get very dry sometimes in summer, as t[illegible] are on the top of a sloping bed. Like Rhodod[illegible] drons, they bloom very freely every other ye[illegible] though there are always some flowers."

TULIPS AND CESTRUM ELEGANS FROM KENT.

Mr. A. O. Walker, Ulcombe Place, near Ma[illegible] stone, sends flowers of a Cottage Tulip and Cestr[illegible] elegans. It is rather surprising to learn that [illegible] latter is almost hardy. Mr. Walker writ[illegible] "Your leader on Tulips and Mr. Comber's let[illegible] on Cestrum suggest my sending the enclosed, v[illegible] Cottage Tulip Beauty of America. This has [illegible] peculiarity that each individual flower prese[illegible] itself in three different colours in succession[illegible] first, primrose yellow; secondly, pure white; a[illegible] finally, edged and streaked with rose colour as[illegible] the two blooms sent. I have noticed this for [illegible] last three years, and these flowers are taken fr[illegible] separate clumps. Cestrum species (elegans)[illegible] This beautiful scarlet species, which I have had [illegible] forty years, is almost hardy. At Colwyn Bay[illegible] has lived for many years on a south-east wa[illegible] I only tried it here last winter, but it sto[illegible] 10° of frost (on the shaded thermometer) in [illegible] open verandah on two nights in successi[illegible] without any protection, and is now a mass of bloo[illegible] I may mention that this place is in the very mid[illegible] of Kent and is 350 feet above sea-level; b[illegible] thanks to this last circumstance, we do not suf[illegible] much from frost."

HE ROSE GARDEN

E LAMARQUE AS AN INDOOR VARIETY.

THIS beautiful old Rose, which is said to be the parent of Cloth of Gold, is sometimes found growing freely on a south wall outdoors, but, generally speaking, it is much too tender for the English climate, although in the South nce, Italy and other places it rambles away wonderful luxuriance. Before the advent mbing Niphetos, Lamarque was in much st as an indoor climber, but its popularity mewhat waned. Yet it is a beautiful old and much too good to lose. In a lofty vatory, budded upon some free-growing it will attain magnificent dimensions, often cing an immense single growth which will a height of 10 feet to 12 feet in a season. the summit of such growths the plant may luced to send out new shoots, which droop very graceful manner and yield charming r white blooms in large numbers. The s are large and full, the buds of exquisite and the fragrance is very sweet. If a good r upright support can be found for it in nservatory or any other structure that is ally heated, this beautiful old Rose should nted, and the present time is a very suitable s most Rose-growers have young grafted in 8-inch pots which, if carefully planted well-prepared site, will make rapid growth mmer. This is really the best way of estab- climbers under glass, much better than g until autumn. The plants, being in active , will quickly take hold of the new soil and, lenty of heat and moisture, grow as freely as g Vine.

P-DRESSING ROSE-BEDS FOR AUTUMNAL FLOWERS.

ems rather unusual to advise top-dressing beds in June in order to aid the autumnal seeing that the plants have not yet produced summer display; but, nevertheless, those would have a grand autumnal blooming will ll to take the hint and give the plants a top-dressing of some good well-decayed re with bone-meal added. Personally, I do are for a surface-dressing of manure where pplied so thickly as to exclude all use of the I have seen such heavy dressings applied, he Roses have not appeared at all happy; here the dressing is so given that the hoe the manure with the surface soil in the of hoeing, then it is decidedly beneficial. Rose-grower should endeavour to have a tack of good well-decayed hot-bed manure a year old. This is of much value in the garden, and will be found most useful in which artificial manures previous to applying them plants.

ROSE ENTENTE CORDIALE.

the appearance of blooms from under this beautiful novelty will be a formidable o, if it does not displace, Kaiserin Augusta ia. In the first place, it has the delicious nce of the old Devoniensis, a fragrance not able, but, nevertheless, very real. From oom before me I cannot detect any marked nce to one of Kaiserin Augusta Victoria, e all know this latter variety has practically grance. In Entente Cordiale we have a kable illustration of how one parent can t fragrance, for we have it on the authority of the raiser that the Rose originated from a cross between Mme. Abel Chatenay, a most sweetly scented Rose, and Kaiserin Augusta Victoria. Herr Max Leichtlin, in a paper read before the Hybrid Conference and reported in the Journal of the Royal Horticultural Society, Vol. XXIV., says that the principles of hybridising holding good in the majority of cases prove that the seed parent bestows form and shape and certain other qualities, and the pollen parent gives more or less colour. These statements are remarkably exemplified in Rose Entente Cordiale. The raiser, M. Pernet-Ducher, says that the flowers are slightly tinged with carmine towards the edges of the petals. This may be true outdoors, but from the specimen I have cut from under glass I cannot detect this tinge. It certainly possesses the vigour and free-flowering habit of Mme. Abel Chatenay, but, strangely, its superb foliage is mildew-proof, whereas I find Mme. Abel Chatenay rather troublesome in that respect. The latter, too, has rather a bad habit of making a tall, ugly plant if not checked in time by slightly pegging out its growths so as to induce the lower eyes to break. Therefore, although we may not have in Entente Cordiale a Rose of very distinct colouring — I am told the colour outdoors is almost the shade of Mme. C. Guinoisseau—we have, nevertheless, one that must by its vigour and sturdiness replace Kaiserin Augusta Victoria, a variety many find difficult to grow well.

P.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Information about Irises (*Mrs. H. C. Sharpe*).—We are not at all sure that you could get Irises to flower from January to October, even though you indulged in a rather complete Iris garden. You may, however, assisted by a cold house or frame, have a display for at least six months, to do which you would have to indulge in the early bulbous kinds, such as Tauri, stenophylla, Danfordiæ, reticulata and its allies persica, alata, stylosa, ruthenica, pumila, Chamæiris and others, till the early Flags were reached; and these, joining with the later Flags and the Spanish and English Irises, would find a sort of finale in the Japanese Flags and the latest flowering species. If you really wish to indulge in an Iris garden, you require expert assistance on the spot, the necessary preparation being of a rather extensive character. If this is not your desire, we may assist you through our columns if you will kindly give us a few more particulars.

Carnation cuttings and Roses (*H. S. W.*). If the Carnations are border kinds, they are best increased by layering; if of the perpetual class, by means of cuttings in slight heat from September to March, or in a cold frame from August to October. From the dead and decayed material submitted we were unable to say to what section the cuttings belonged. In selecting cuttings of these plants it is essential to obtain young pieces, and cuttings of 4 inches in length should be made to a joint, *i.e.*, cut across immediately below a leaf-joint on the stem and inserted in pure sand kept moist or in very sandy soil. Rose cuttings may be taken in September, the shoots of half-ripened wood about 6 inches in length being the best. Rose cuttings, too, intended to be rooted in a cold frame or in the open will be best when made with a heel, and if inserted in the open ground they should be buried fully half their depth.

Gentiana acaulis (*Rock Garden*).—This species is often a puzzle, and succeeds under exactly opposite conditions in different localities, in some preferring lime apparently, in others disliking it. In the circumstances we can only suggest that you allow the plants to remain till October; then replant them very firmly in small tufts, wedging some bits of sandstone about the roots and employing a little old plaster with the soil, which should be of a light nature and well drained.

Hollyhocks diseased (*E. H. L. L.*).—The Hollyhocks are badly attacked by the too well-known Hollyhock rust, due to the fungus Puccinia malvacearum. This disease often works great havoc with Hollyhocks, spoiling them so that they flower very poorly. The disease is very infectious, spreading by means of the spores, which are produced in myriads on the spots on the leaves. It would be best to destroy the diseased plants by fire, or, if you wish to keep them, spray them with a rose red solution of potassium permanganate; but this is only a very partial remedy.

Hyacinths failing (*J. A. S.*).—A few more particulars of the treatment and time of planting would have been most helpful in this case. The bulb sent, if undersized, is quite healthy, but has been planted much too shallow in the soil. We have known a precisely similar thing to happen in the forcing department, but never in the open with fair treatment and reasonable planting. Bulbs much too long in the bulb-store and planted in mild weather may have started too quickly into growth before roots were sufficiently developed to support the plant. Apart from this and in the absence of fuller information, we can only imagine that undeveloped bulbs and a by no means favourable past season for ripening them have been jointly responsible for so unfortunate a result.

THE GREENHOUSE.

Culture of Begonia fuchsioides (*F. G.*). Begonia fuchsioides is a shrubby-growing evergreen species that must not be dried off at any time. It forms a thickened rootstock, and the stems which are pushed up therefrom reach a height of 3 feet to 6 feet. They are clothed with numerous ovate green leaves 1½ inches or so in length and, when young, tinged with red. The individual flowers are small, but, being borne in large drooping panicles and of a scarlet colour, they make a good show. The cultural requirements of this Begonia are not exacting, as cuttings of the young shoots strike readily if put in a close propagating-case during the spring or early summer months. A potting compost of loam, peat and sand will suit it well. It is essentially a greenhouse plant; indeed, to keep it at its best it needs during the winter a temperature above that of an ordinary greenhouse, that is, a structure where at that season the thermometer ranges from 50° to 60° will suit it best. It does particularly well if planted out in a prepared bed in the warm greenhouse and the principal branches are secured to an upright pillar or stake, leaving the secondary ones to dispose themselves at will. This Begonia is also very pretty when grown as a basket plant. There is a useful and popular hybrid between B. fuchsioides and B. semperflorens known as Corbeille de Feu. This, which forms a freely branched bushy specimen from 18 inches to 2 feet in height, has bright red flowers. It is much used for greenhouse decoration and also for summer bedding. As a central plant for Begonia beds a well-furnished specimen of Cordyline australis would be effective, while Araucaria excelsa and Grevillea robusta are often used. Of flowering plants standard Fuchsias are very desirable.

Greenhouse for the growth of Tomatoes and cut flowers (*Viola*).—You cannot successfully grow

Grapes, Tomatoes and cut flowers in such a house as you describe, but you can Tomatoes and Chrysanthemums; and if you want to make the most of your house for sale purposes, this is what we would advise you to do. For the purpose of growing these two crops you need not go to the expense of erecting stages or of providing furniture of any sort, and, we think, you have plenty of heat also. Your best way to go to work will be by trenching the soil in the house (every inch of it you can get at) 2½ feet deep if it is of fairly good quality, mixing with the soil a good cartload of rich rotten farmyard manure. If the soil is poor and no good, you should wheel at least half of it out and replace it with the best turfy soil you can find. After the trenching is finished, spread a layer of quicklime over the surface of the soil a quarter of an inch deep, afterwards forking it into the top of the soil. The border will now be ready to receive the young Tomato plants, and the sooner they are planted the better. Press the soil firmly to the roots in planting, and plant 18 inches apart all ways; that is, 18 inches between plant and plant in the row and the same distance between row and row. Give the plants a good watering immediately they are planted, placing a stake 5 feet high to each plant (Bamboo canes are the best); and to prevent treading on the soil place some narrow boards between every other row to walk and work upon. The Tomato crop should be over by the middle of October, when the plants should be cleared out and the ground dug over ready to receive the Chrysanthemum plants from outside by the end of October. We think it would take from fifty to sixty Chrysanthemum plants fully grown in the autumn to fill your house, planting them in the ground the same as the Tomatoes were planted and immediately giving them a good watering. Your best way to prepare the Chrysanthemum plants will be by tying young plants in and planting them in your garden outside at 2½ feet apart at the end of May, giving them plenty of water in dry weather until they have taken a good hold of the soil; afterwards they will not need any. When buying your plants you should stipulate for best market varieties, chiefly in white, yellow and rosy pink, and at least one-third of them should be late sorts to flower about Christmas.

ROSE GARDEN.

Liquid manure for newly planted Roses (*Tom Pinch*).—As to whether you are helping your Roses or otherwise somewhat depends upon your soil. If this was liberally manured when the Roses were planted last November, the liquid manure made by adding half water and half housemaids' slops, which you are giving once a fortnight to the plants, will be rather injurious to them if you continue to apply it. We advise you to withhold any further application until the flower-buds are of the size of small marbles. By that time root action is well advanced and the plants can utilise fertilisers more easily. You might well preserve the liquid manure in tubs or a tank, and add a small bag of soot and one of fresh cow-manure. The liquid thus obtained will be very valuable, and can, by diluting it to half strength, be given to all growing crops and to your Roses later on.

Rose Leuchtstern with blighted foliage (*R. Lake*).—There are several indications of the fungus known as "black spot" on the foliage you send us, although many of the marks are caused by cold winds and frost. As a rule, black spot does not appear much before midsummer. In addition to the unsightliness caused by this fungus, it is very injurious and causes the foliage to fall prematurely. It does not often affect Ramblers, as you say; but Leuchtstern and a few others will sometimes be attacked. It is present more or less in every garden, and at midsummer is not noticed so much. It is well to remove and burn badly diseased leaves and pick up and burn all fallen ones. As a preventive measure it is well to spray in spring and continue at intervals of a week or so with a solution of potassium sulphide, 1oz. to 10 gallons of water. This does not cure existing attacks, but it will be a preventive for the young foliage. This fungicide is also good for attacks of mildew.

Weeping standards of Flower of Fairfield (*A. C. W.*).—This Rose, like the Crimson Rambler, will grow very well on standard Briars, although it does not do well on the dwarf Briars. Do not bud on the rugosas, as they make such ugly stems. You can bud into the shoots you have retained of your old plants. By August the sap will be flowing freely, so that you can insert the buds in the stem if no lateral growths are strong enough. Keep all side growths pinched back to about 1 inch in length. The tall Briars by the wall could well be budded with Grüss an Teplitz, for there is no more beautiful crimson Rose, and it is so very free. Perhaps it would be a good plan to bud alternately a fast grower, such as Hiawatha, as these droop more gracefully than Grüss an Teplitz. Dr. Rouges would be a fine sort, so also would Noella Nabonnand, and good fast growers other than Hiawatha are Lady Gay, Dorothy Perkins, White Dorothy and Tausendschön. If you prefer all to be large-flowered sorts, then Climbing Testout should be one; but the others you name are too rigid to make good drooping kinds, although grand as free-headed standards. Mme. Alfred Carriere would associate well with Grüss an Teplitz.

MISCELLANEOUS.

What constitutes an amateur gardener? (*A. Fawcett*).—How often is this question asked, and how often answered; yet, somehow, conditions creating the question seem to vary. You specially refer to an ex-garden labourer, or one who is still such, your reference not being clear; but certainly whether still such or not, he is by no means an amateur. His place, as well as that of the ex-signalman, is that of a cottager, if your schedule (not to hand) includes such a section of exhibitors. In all ordinary schedules an amateur is classed as one not in receipt of weekly wages, as a cottager is, but a person who, having some totally distinct trade or vocation, cultivates his garden out of pure love as a recreation. Amateurs may employ occasional assistance, but none regularly, as the amateur must be his own gardener. He must not use his garden as a means to a livelihood, or do work in gardens for such purpose. Many of the clergy are amateur gardeners. Your two examples are not amateurs. A professional gardener is one in the horticultural trade, such as a florist or nurseryman, or an ordinary or jobbing gardener, all being dependent on gardening for a livelihood. In the case of cottagers, it is common for them to sell portions of their garden produce where they have large gardens; but these men, if they spend largely in seeds, manure and labour, being dependent for a livelihood on their labour, of whatever description, must of necessity recoup some of the cost incurred by disposing of surplus produce. Doing that does not affect their position as cottagers. Amateurs must not trade in their garden produce. If they do they are in danger of being classed as market or professional gardeners.

To improve an Asparagus bed (*B. R.*).—Most decidedly it will strengthen and greatly improve the yield of your bed next year if you can forbear cutting this year. If you can give the beds, towards the end of the summer, three or four heavy waterings with farm or stable yard manure-water, it will still further help them. Should you find any bare spaces in the bed during summer, put a stake securely into each bare place and replant with new roots at the end of March next year.

The use of spent soil (*M. E. R.*).—The spent soil may be used again if laid aside in a stack for a year or more and enriched with short stable manure or given lime and soot in alternate layers of a few inches asunder when being stacked; or it may be used again the following season for a crop quite distinct to that for which it was originally used. For example, soil from Chrysanthemum pots would do perfectly well for a large number of bedding plants, while soil that had been used for Carnations might with slight additions be used for Chrysanthemums, and so on. If, however, your enquiry is whether the soil would do for the same kind of crop two years in succession, the answer is, "No."

Woodlice in Mushroom caves (*J. B. G., Manager*).—The most effective way of getting rid of these lice is by pouring boiling water into the crevices between the walls and the earth next to them, where the pests hide during the day. It is no use applying this remedy in a half-hearted way; but where the boiling water is applied to all the holes and crannies in the building, and in abundance, we have never known it to fail to effect a clearance, especially if persevered in for two or three successive times at intervals of a few days. Another way is to place a piece of raw Potato, Carrot or Turnip in the bottom of a flower-pot, filling up the same loosely with hay, examining it frequently and destroying all insects found.

Trimming a Laurel hedge (*J. H. G.*).—You may trim your Laurel hedge any time between April and September with this difference in the work. If you do it during April or May, you may clip it with shears, for new shoots will quickly appear to hide mutilated leaves; but if you do the work later, secateurs ought to be used, so that the leaves will not be damaged. Should the leaves be damaged during summer or autumn, sufficient new growth may not be made to hide them, and they will look unsightly until the following year. Your Rhododendron branch which was layered twelve months ago last Oct[ober] to be left until September next. The rooted [layer] then be taken off and planted firmly in peaty [soil]. April prune them so that they will form sha[pely] Peaty soil is not desirable for all kinds of sm[all] things as Rhododendrons, Ericas, Pieris, A[zaleas], Kalmias, Clethras, Arbutuses, &c., thrive ex[cellently] peat, but loam is necessary for Spiræas, Phil[adelphus], Berberis, Forsythias, Cytisuses, Hypericums, [etc.] best results are desired. A good plant for you[r] would be Cratægus Pyracantha if you desire an [evergreen] or the Cydonia (Pyrus) japonica would do very [well] do not mind a deciduous shrub.

SOCIETIES.

THE ROYAL NATIONAL TULIP S[OCIETY] (NORTHERN SECTION).

THE Northern show was held at Middleton, near M[anchester] on June 4. The date fixed was a very late one, [and] natural consequence, it was only those in a [few] district that were able to show their best flo[wers] suited both Mr. Bentley and Mr. Knowles, wh[ose] Needham's flowers were past their best. Th[ere] however, a fair number of exhibitors, but the [quality] the blooms was hardly up to the average. W[hen] visits such a show as the above it is like a peep [into] old world. The show was all Tulips—every one [exhibited] was of the florist type with spotless white or yell[ow] No Cottagers or Darwins were admitted as at the [other] show. There were no embellishments; no g[ay] no lovely trade groups; no crush of visitors, only [a few] of keen enthusiasts; no elaborate staging, only [the] looking stands for the twelves and sixes and gi[lt] bottles for the other classes; nothing, in fact, that [we] come to look upon as necessary adjuncts of an u[p-to-date] display. On the other hand, there was such an o[ld-time] ness about everything, about the schedule, a[bout] flowers, about the staging and about the good-f[ellowship] of the exhibitors. that one could not help feeling [a] sadness that, with the exception of the still older [men] Wakefield, this was all that remained of the ma[ny] that were held in almost every county town in [North] Lancashire, Yorkshire and the Midlands in ti[mes] within living memory.

The schedule was framed on the old famili[ar] Class 1 was for twelve dissimilar rectified Tu[lips] feathered and two flamed in each class. Mr. J. W[ood] was placed first, and among his flowers were an [excellent] example of Samuel Barlow, a flamed bizarre; [also a] very pretty flamed rose; and Sir Joseph Paxt[on] second prize went to one of the oldest Tulip e[xtant] that we have, Mr. J. Knowles of Stalybridge. [He has] been showing Tulips ever since 1860. His flow[ers] in nice condition, and included a good exampl[e of] famous Trip to Stockport, a fine feathered by [Dean] which has only to be well grown to secure a go[od] whenever it is exhibited; also Robert Guest, [an] uncommon feathered bizarre, of which I believe [there] only two bulbs in existence, both of them in the [collection] Mr. Knowles. The third prize went to a good ev[en] flowers from Mr. C. W. Needham of Hale. He[ad] Joseph Paxton very good indeed. It will interes[t] to know that Sir Joseph Paxton is a bizarre Tuli[p] at least sixty years old. It is one of the very b[est] that have ever been raised, and to-day figures oft[en] more prominently on the show table than a[ny] variety, old or new. Mr. G. Eyre of Ripley, D[erby] was fourth. In the sixes the above prize-winn[ers] joined by Mr. W. H. Midgley of Halifax and M[r.] Whitworth of Wakefield.

In Class 3, which was for smaller growers, Mr. J[. Hill] of Wakefield was first. He had a fine Stockpo[rt] is the usual way Trip to Stockport is nowadays de[scribed] Somehow it seems out of place and far too m[uch] abbreviate in this way. There is something char[ming] in Trip to Stockport and Glory of Stakehill w[hen] abbreviated form lacks. Mr. W. Stringer of [Wakefield] was second. He had a good Samuel Barlow. [Mr.] Fillingham of Blackley was third.

In the breeder section of the show, in the [open] class for six dissimilar Tulips Mr. Needham [was first] and included in his stand was an exceptionally [fine] orange named Dr. Cooper. I believe it is one of [Mr. Bentley's] raising. Mr. Eyre was second and had Alice [Lounds], delightful pale lavender, and Loveliness, one of [the] few pure white-based Darwins. Mr. Bentley [was third] and Mr. Whitworth fourth.

The single bloom class always produces the b[est] petition. Any competitor may stage as many [blooms] as he pleases, but can only win two prizes, but [each] variety may win as often as it can. Mr. Kno[wles] very much in evidence in this competition. He [was] out of the first four prizes for the feathered by [Dean] (each time with Stockport), two in the feathe[red] (each time with Modesty) and one in the flamed r[ose] Mrs. Telford. Similarly Mr. Eyre did very well. [He] the first three or four prizes he figured twice in th[e] breeders, twice in the rose breeders, once in the b[ybloemen] breeders and once in the flamed roses. Naturally [Mr.] Needham and Bentley had their fair share of the s[poils]

The best flamed flower in the show was a Samu[el] shown by Mr. J. W. Bentley, and the best feath[ered] beautiful example of Modesty (a rose) shown b[y] Knowles.

I feel I must mention the great beauty and de[licacy] Alice Gray, a pale lavender byblœmen breede[r] after seeing such a flower as this and comparin[g] the pale Darwins, such as Erguste, that one rea[lises] much one gains by the pure white base. JOSEPH

THE GARDEN.

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CONTENTS.

ME SUMMER-FLOWER-NG SHRUBS 309
thcoming events.. 310
TES OF THE WEEK
Opening of Saughton Park, Edinburgh 310
A Rose festival .. 310
RRESPONDENCE
Co'our descriptions of flowers 310
RDENING OF THE WEEK
For the South and South Midlands .. 311
For the North and North Midlands.. 311
ENHOUSE
Plunging pot plants for the summer .. 312
New Perpetual-flowering Carnation Empire Day 312
IT GARDEN
Fruit notes 312
CHEN GARDEN
he way to grow Turnips 313
WER GARDEN
anuncul is Evening Star 313
he Forget-me-Not and its culture .. 313
axifraga Milesii .. 314
good bed of Eremuri 314
TREES AND SHRUBS
Some rare flowering shrubs 314
A little-known Lilac 314
ROSE GARDEN
Pot Roses after flowering 315
Banksian Roses .. 315
The new Rose Excelsa 315
Rosa bracteata Maria Leonida.. 315
The Hybrid Sweet Briars 315
GARDENING FOR BEGINNERS
Garden work week by week 316
Earthing-up Potatoes 316
Liliums in pots .. 316
Removing spent Pansy blossoms.. 317
Potting plants too deep 317
Stopping and repotting plants 317
THE TOWN GARDEN.. 317
National Vegetable Society 318
Editor's Table 319
ANSWERS TO CORRESPONDENTS
Flower garden .. 319
Miscellaneous.. .. 319
SOCIETIES 320

ILLUSTRATIONS.

new Perpetual-flowering Carnation Empire Day 312
new Ranunculus Evening Star 313
ed of Eremuri at Manor House, Eastbourne .. 314
orid Sweet Briar Catherine Seyton 315
v to earth-up Potatoes 316
noving spent Pansy blossoms.. 317

EDITORIAL NOTICES.

very department of horticulture is represented in THE DEN, *and the Editor invites readers to send in questions ing to matters upon which they wish advice from com- nt authorities. With that object he wishes to make "Answers to Correspondents" columns a conspicuous ure, and, when queries are printed, he hopes readers kindly give enquirers the benefit of their assistance. communications must be written clearly on one side of the paper, and addressed to the* EDITOR *of* THE DEN, *accompanied by name and address of the sender.*

he Editor welcomes photographs, articles and notes, he will not be responsible for their safe return. All onable care, however, will be taken, and where stamps enclosed, he will endeavour to return non-accepted ributions.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

SOME SUMMER-FLOWERING SHRUBS.

ONE of the most beautiful nursery gardens in the world is that of Messrs. James Veitch and Sons at Coombe Wood, Kingston Hill. This is only one of their many horticultural establishments, and it is difficult to describe one as more interesting than the other. We went there a few days ago for the purpose of choosing a few shrubs that flower at this sort of between-seasons, as a guide to those who are not wishful for mere collections, but who require a few beautiful kinds to group or plant as fancy dictates. It is only by recording the shrubs or any other plants that bloom at certain seasons of the year that one knows which to select when late autumn and winter once again come round to remind us of the preparations for another year. The

Mock Oranges (Philadelphus) are often represented as unruly shrubs that fling their shoots hither and thither and bear flowers that, through their overpowering fragrance, are unpleasant. But the great hybridist, Lemoine, has raised a delightful race which may be called "dwarf," that is, shrubs for grouping to give beauty and a soft scent in the early summer. The writer saw two kinds of infinite charm. One is called Gerbe de Neige. This grows about 3 feet high, has spreading leafy shoots, which at this season are wreathed with semi-double white odorous flowers, and, happily, not only is the shrub as hardy as an Oak, but it enjoys ordinary garden soil. A mass of this near the woodland or the house itself is a pleasant flower-picture in early June. Another hybrid of great distinctness is Conquette, which has larger flowers, white, faintly perfumed, and borne with that freedom characteristic of the Mock Orange.

Olearia stellulata.—This is less familiar than O. Haastii, but it is quite as worthy of consideration. It is a good garden shrub, dark in leaf colouring and smothered with starry white flowers for many days in June. The growth does not reach more than 4 feet at the utmost, and its denseness, hardiness and, if one may so express it, "all-round usefulness" should win it greater favour in the English garden. The plants at Coombe Wood are in ordinary garden soil, and have triumphed against the severest winters.

Escallonia philippiana and E. langleyensis.—There is an impression that the Escallonias are not hardy, but this is erroneous. E. philippiana at Coombe Wood has weathered many winters, and those who know this nursery garden cannot describe it as sheltered. It is on a hill sloping to a valley, then rising again in a fair vision of flowering trees and shrubs in the distance with the view beyond. E. philippiana is a bush which reaches quite 6 feet high when its full development has been reached; the deep green leaves are thick on the shoots, and at this time almost hidden with a cloud of white flowers. But the Escallonia that appeals most strongly to the writer is S. langleyensis, which was raised in the Langley nurseries of Messrs. Veitch. There is a superb plant at Coombe Wood; it is trained to some rough stakes, is 10 feet high and 12 feet wide, and the slender shoots are wreathed with rose pink flowers—ropes of them, one may say—3 feet to 4 feet high. We hope to shortly illustrate this glorious shrub, which may be grown also as a bush. It is perfectly hardy and has charming attributes—strength, gracefulness, deep, shining green leaves and brilliant rosy flowers. The

Cistuses are shrubs for warm, dry soils, and they are many in number; but of this beautiful race one of the most accommodating is C. florentinus, which is a perfect success in ordinary garden soil, and flowers abundantly over a long season. In writing these notes we have an object in view—a selection of a few of the most beautiful in early and mid-June. Cistus florentinus was, a few days ago, a mound of white, yellow-centred flowers, and it is quite a bush, seldom more than 2½ feet high. It is one of those shrubs that show to the greatest advantage in a mass, such as may be seen in the Royal Gardens, Kew.

The Canadian Crab Apple (Pyrus coronaria fl.-pl.) is still rare, but the time of its flowering and beauty should in the near future create as much interest as its many relatives, of which P. floribunda is the most distinguished. Messrs. Veitch write of it as follows: "A very beautiful double-flowered variety of the Crab Apple of Canada and the Atlantic States, which is usually a small tree of 25 feet to 30 feet high, producing its fragrant red and white blossoms late in the spring. The variety far surpasses the original type in the beauty of its flowers. These are more than 1½ inches in diameter, and emit a delicious odour of Violets."

Ceanothus thyrsoideus was covered with flowers. The colour is refined, a pale

lavender shade that is not assertive in the garden; but there is a freedom of growth, profusion of bloom and hardiness that make this Ceanothus, little known as it is, one of the most desirable of shrubs for the early summer. The Ceanothuses have the reputation of tenderness, that is, unable to withstand a severe winter, but the flower-burdened shrub we saw at Coombe Wood had borne the brunt of several winters, on one occasion the thermometer registering below zero. The delicate-coloured flowers are in quiet relief to the glossy leaves.

Rhododendron govenianum.—Among the many Rhododendrons in flower during the past few weeks at Coombe Wood, one has stood out, so to say, for its beauty and usefulness, and this is called govenianum. It is a bushy shrub, 4 feet to 6 feet high, but those we saw were even less. It is a leafy, spreading, dense and cheerful kind, cheerful because of the bright green shade on the leaves, but the flowers in thick clusters, reminding one of those of a hardy Azalea, are exquisite in colour—a soft lilac—and distil in the warm summer air a fragrance of Violets. It is an excellent shrub for grouping.

Genista sagittalis.—A mass of this dwarf Broom thick with yellow flowers suggests that more should be made of this delightful little shrub in the woodland and garden. It is a sheet of gold at a season when colour is desired, and, happily, an ordinary soil will suffice.

The Chinese Guelder Rose (Viburnum plicatum) is perhaps almost too well known for these notes, but one cannot pass such a shrub, now flowering, without comment. It has been a picture of colour in the Royal Gardens, Kew, and at Coombe Wood presented the same alluring beauty. It is a shrub for large beds by the side of woodland walk or the principal drive, as it differs considerably from the familiar Snowball Tree in being more spreading in growth, with dark green crinkled leaves, which in early June are almost hidden beneath the ivory white clusters of flowers.

Magnolia parviflora was beginning to flower freely. This and M. Watsonii are two kinds in this glorious family that should be planted where they do not already exist. M. parviflora is not tender, and the sweetly scented flowers, creamy white in colour with a warm, red centre, remind one of some exquisite Water Lily. *Weigela or Diervilla Eva Rathke* may seem too common to notice, but the bushes in this nursery glow with the profusion of deep crimson flowers. It is a shrub for all gardens, whether in the town or the country, flowering until October, strong, free, showy and striking in colour

FORTHCOMING EVENTS.

June 29.—Richmond (Surrey) Horticultural Society's Show.

July 2.—Windsor and Eton Rose Show.

July 5.—Royal Horticultural Society's Summer Show at Holland House, Kensington (two days).

July 7.—National Rose Society's Metropolitan Exhibition, Royal Botanic Gardens, Regent's Park.

NOTES OF THE WEEK.

East Anglian Horticultural Society. At the June monthly meeting three competitors had sent in essays in a competition upon "The Cultivation of the Pear." After these had been read, the judges awarded first prize to Mr. C. Matthews, second to Mr. C. H. Fox and third to Mr. J. Ewing. The three papers dealt with the practical side of the subject, and brought out a capital discussion, which was entered into by the several eminent local fruit-growers present. The exhibition was very pretty. Mr. Frank Neave and Mr. C. H. Fox staged pretty groups of the new long-spurred Aquilegias. Mr. F. Williams, gardener to Mr. Louis Tillett, and Mr. W. Shoesmith, gardener to Mr. F. W. Harmer, Norwich, both exhibited types of the hardy Cypripedium.

Opening of Saughton Park, Edinburgh. This fine park would have been opened to the public earlier had it not been that its use was granted for the Exhibition of 1908, but it was formally opened to the public on June 11 by Lord Provost Brown. Bailie Inches, the convener of the Edinburgh Parks Committee, in an introductory speech, spoke highly of the manner in which the work of carrying out the improvements had been effected by Mr. J. W. M'Hattie, the city gardener; and Lord Provost Brown, who opened the park, highly commended the work of the department. The opening ceremony was attended by many thousands of spectators, who were delighted with the bright appearance of the gardens and grounds. A number of alterations have been effected without sacrificing any of the good features of the old gardens, and many expressions of pleasure at the way in which the work was carried out were heard. Some of the features will, of course, take some time to show their true beauty; but the park is, even as it stands, a most enjoyable one and full of many things of horticultural interest, for which Mr. M'Hattie deserves every praise.

A Rose festival.—I have recently received a copy of an American paper called *Better Fruit*, in which an account is given of a prospective Rose festival to be held at Portland, Oregon, that charming and fruitful Pacific State of the United States of America. This festival, which by this time is an accomplished fact, is not so much the matter I desire to draw attention to, because I am averse to the barbarous use of the Rose for decorating motor-cars and other vehicles; but in the paper referred to it states that the city of Portland planted 250,000 Rose bushes in the brief period of three years. It goes on to say: "Think of a city that becomes obsessed of an idea that will give it world fame, and then working night and day, week in and week out, until such a feat has become an accomplished fact. Portland, in the spring of 1907, determined that it should be known as the foremost 'city of Roses,' indeed, the one unchallenged 'Rose city' of the world, and since that time a canvass of the district improvement associations and residence districts show very clearly that no fewer than a quarter of a million of Rose trees have been set out." Well, instead of isolating any one city or town in England as being a "Rose city or town," we have the satisfaction of knowing that England still maintains her foremost position as the "Rose country of the world." But the idea of making certain towns or cities very distinctive for their Roses seems to me a commendable one, especially if we can get estate agents or local bodies to plant Roses largely, as Mr. Molyneux states has been done at Purley. In every large city and town there are numerous places where Roses would thrive well, and would prove not only a source of pleasure to inhabitants, but would be instructive also. In the matter of municipal planting of Roses [illegible] to be done after consultation with a local [illegible] upon Roses. This would undoubtedly well [illegible] the ratepayers. I have in mind now a spl[illegible] piece of ground overlooking the sea which, if [illegible] out as a Rose garden, would be a great boo[illegible] the inhabitants, and also help to advertise [illegible] place as a health resort. It is not every [illegible] town that possesses such a naturally good [illegible] soil as Westcliff-on-Sea, and a Rose garden es[illegible] lished there would be a great success.—P.

Bedford Park (Chiswick) Garden Society.—The fifth annual show of this del[illegible] ful suburban society will take place on Satur[illegible] July 2, from 4 p.m. to 6 p.m. Many exce[illegible] classes are provided as in previous years. Ti[illegible] to admit those who are not members may [illegible] obtained of the hon. secretary, Mr. R. H. Re[illegible] Camelot, South Parade, Bedford Park, W., p[illegible] 6d. each.

Presentation to a North of Scotla[illegible] gardener.—The other day a deputation fr[illegible] the tenantry and friends in the district wai[illegible] upon Mr. William Munro, gardener to Colo[illegible] Leslie of Kininvie, Dufftown, N.B., and presen[illegible] him with a testimonial in recognition of the este[illegible] in which he has been held and to mark their reg[illegible] at his retirement. The presentation took [illegible] form of a purse of sovereigns, and Mr. Mun[illegible] character received a well-deserved encomium fr[illegible] the deputation. Mr. Munro retires from his du[illegible] full of years and of respect. He has been g[illegible] dener to the family at Kininvie for thirty-se[illegible] years, and has also filled the important office ground officer, fulfilling both duties in a most a[illegible] and kindly way. To mark their appreciation his services, Colonel Leslie and family also presen[illegible] gifts to Mr. Munro. Mr. Munro has spent no le[illegible] than fifty-five consecutive years as a garden having been in that capacity to Colonel Marsh Dandaleith, Craigellachie, for eighteen ye[illegible] previous to entering upon his post at Kininvie.

Presentation to a Scottish gardener. A deputation representing the Altyre est[illegible] employés, viz., Messrs. W. Maclaren, factor; Millar, head-keeper; D. Maclennan, estate plumb[illegible] and Mr. John Robertson, forester, recen[illegible] waited upon Mr. Andrew Chrystall, gardener, [illegible] presented him with a purse of sovereigns on [illegible] occasion of his retirement. In handing over [illegible] gift, Mr. Maclaren said one and all regretted [illegible] departure of Mr. Chrystall from Altyre. He [illegible] the bearer of a message from Sir William [illegible] Lady Gordon-Cumming to the same effect, but [illegible] laird and his good lady were both pleased to le[illegible] that he was still to reside on the estate with [illegible] son, who is head-gardener at Gordonstoun. Chrystall suitably acknowledged the gift. He [illegible] all times found the employés on the estate m[illegible] obliging, and referred to the kindly feeling wh[illegible] had always existed between them. He regret[illegible] leaving Altyre, where he had spent so many ha[illegible] years—years which he would never forget.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Colour descriptions of flowers.—[illegible] may expect, perhaps, some inexactitude in oc[illegible] sional contributors to your paper, but har[illegible] that you yourself in a leading article should [illegible] Gesner's Tulip "scarlet." I know it is comm[illegible] so-called, a practice which surely shows that [illegible]

our Chart cannot be much in use yet. If ever a lip was crimson it is T. gesneriana; in fact, I ubt whether anyone has yet seen a true scarlet our in a Tulip. Few flowers are really scarlet, a matter of fact. Lychnis chalcedonica is one. narda didyma is usually so-called, but is crimson, ay be seen by placing a flower of it beside a ch of scarlet Geranium (Pelargonium). I e you will discourage the indiscriminate use he word and lead us to more exact phraseology. J. Weaver.

Raiser of Rose William Allen chardson.—I extract (somewhat shortened) n the American paper *Outlook* of June 4 what y at this season interest some of your readers: r. W. R. Bellknap states that he is the nephew William Allen Richardson. 'W. A. R.' was n in New Orleans, February 20, 1819. When was two years old his father moved to Lexington, tucky, where he resided till his death in ober, 1892. He married Mary Short, daughter Charles William Short, botanist. With this genial companion he became much interested the cultivation and propagation of Roses. He orted and, coming into correspondence with e. Ducher of Lyons, he sent her a pale yellow e in which she was much interested, and she te him that she had a sport from it, which, if ssful in propagation, she would call by his e, and this she did."—N.

Queen wasps and Cotoneaster microylla.—I was interested to note your correndent's letter on the above, but, unlike him, I ce bees are conspicuous by their absence. I e often thought of writing to you to ask what plant contains that is so attractive to the taste hese wasps. Blow-flies are also very noticeable. . Cranstone.

A plea for fragrant Sweet Peas.—I e agree with the remarks of your correspont "C. R." respecting the absence of fragrance some of the newer varieties of Sweet Peas. hough the true Sweet Pea scent is delicious and erally appreciated, no doubt there are many ders who will prefer to grow some of the arkably fine new sorts because they are not et-scented. Once, in conversation with a tleman, I remarked what a pity it was that a ain flower was scentless. His reply was, think it an advantage; if all flowers were fragrant might dislike them in rooms." If, however, it ame a very difficult matter to procure really et-scented varieties, there would soon be a outcry for them, and our hybridisers would be t to meet the demand.—B.

Eucalypti in Britain. — The specimen ucalyptus Gunnii referred to by Mr. Llewelyn yd, M.A., is, I should imagine, the tallest in country. It is one of the most useful for -air culture in this country, grows almost as ly as the variety globulus and is quite hardy. re are some fine specimens of E. Gunnii in npshire, and also, I believe, in Devonshire and rwall; but none, to my knowledge, as tall he one referred to by your correspondent. I e of a nice specimen of E. globulus about 20 feet , which grew in an isolated position on a lawn, withstood the frosts of fifteen winters; then stem split and the tree died. I am particuy fond of the Eucalypti, especially the variety olus, and I recently grew one in my garden to ght of 15 feet; then the frost of two winters killed it, and so I gave up the attempt to grow the open and planted E. Gunnii in its place. pruning of these trees should be done towards end of March; then the new shoots get well ured before the winter frosts come. Late ing is a mistake, but, in order to ensure ngth of tree, some pruning must be done.—B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Hardy Fruits.

STRAWBERRIES.—Layering will be the next operation with these, and should be commenced as early as possible. Where plants are required for forcing, it is advisable to grow a few rows of plants expressly to produce layers for the work. All the trusses of bloom should be picked off as soon as they appear, and strong runners will be obtained. When the runners have to be taken from the fruiting plants they are naturally later, and this means later potting into fruiting pots. Three-inch pots are generally used for the work. These should be filled with a mixture of two-thirds loam and one-third decayed manure, pegging the runner into the soil. After layering, the pots will require to be kept well watered, twice a day being necessary during dry weather.

Loganberries.—Every protection must be given to the young growths that these are making, for it is from these that next season's crop will be obtained. They should be loosely tied in with broad matting, as they are very tender and liable to get bruised if tied with cord or twine.

Peaches and Nectarines.—If the work of disbudding was thoroughly carried out, all that is now necessary is the tying in of the permanent shoots.

Flower Garden.

Herbaceous Borders.—All plants should be given support as soon as they require it, and the borders kept free from weeds by frequent hoeings. Those plants that have finished flowering should have the old flower-stems cut out and all dead foliage removed. This does not apply to bulbous-rooted plants. These may have all seed-pods picked off, but the stems should be allowed to remain and ripen. Blank spaces caused by the removal of Foxgloves can be filled up with Sunflowers, grown on for this purpose. Sweet Peas are very useful for taking the place of Foxgloves. Those left after the general planting is completed may be potted into 9-inch pots, and will then make excellent plants for the back of the border. Summer-flowering Chrysanthemums will fill up the gaps when the Canterbury Bells have finished flowering. The Chrysanthemums lift readily, providing dull, moist weather is chosen and a good ball of soil is taken up with each plant.

Kitchen Garden.

Planting Green Crops.—Follow up with this work at every opportunity. In many cases the ground is filled up at this season and vacancies have to be waited for. The early Pea border may be cleared and filled up with Savoys or autumn Broccoli. The old Strawberry quarters may be filled with Kales and Sprouting Broccoli, and it may be necessary to plant between early Potatoes.

Coleworts.—The Hardy Green and Rosette varieties form a useful crop for autumn, and may be sown at the present time. When large enough to handle they may be planted out in well-prepared ground 1 foot apart each way.

Late Broccoli.—It is very important that plants of these should be grown strong and sturdy from the start; therefore they should be transplanted from the seed-bed when in a small state to an open piece of ground. There they will make strong plants to put into permanent quarters, and more fitted to stand the winter than by planting direct from the seed-beds.

E. C. Pooley.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Outdoor Gardening.

Callas.—Much diversity of opinion exists as to whether the Lily of the Nile should or should not be planted out. The finest plants I have ever seen were never planted out; but, again, very fine specimens have been noted that were annually planted in trenches in the open. Each one must, therefore, please himself as to the summer treatment of this useful plant. If planting out is practised, an open, sunny position should be selected and a trench similar to that made for Celery or Leeks thrown out. Abundance of thoroughly rotten manure must be placed in the bottom and some good soil spread on the top of it. Give plenty of room to the plants, as it is desirable to get the crowns thoroughly ripened. Do not forget to give copious supplies of water during dry weather.

Cyclamen.—Very good results may often be had by treating old Cyclamen bulbs in the same manner as advised for the Callas, but it is perhaps safest to make up the bed of manure in a frame, as it may be late in September before they are fit for lifting and potting up. One of the best amateur growers of my acquaintance treats his bulbs in this way with very marked success. Another plan, and one that I have personally found very successful, is to set the pots in a frame or in a sheltered corner out of doors, and to give only enough water to prevent the old foliage from flagging. A sunny position is best. Repot or top-dress when signs of new growth are apparent, and keep close and shaded in a frame, syringing twice a day to encourage vigorous, steady growth.

Plants Under Glass.

Tomatoes.—Plants in pots, even if being well supplied with liquid stimulants, will derive great benefit from a top-dressing of fresh, rich soil and some good fertiliser. Make the compost quite rich, say, three parts good turf, one part rough leaves, two parts dry horse or cow manure and a little sand. Give also to each plant two tablespoonfuls of Thomson's or other approved plant manure. Make the soil very firm and give a good watering. Tomatoes in beds should have a sprinkling of the manure every three weeks or so.

Amaryllis.—If not already done, no time should be lost in having these removed to a sunny position in a cool pit or greenhouse. This will greatly benefit the bulbs and ensure fine blooms in due season.

Rose Garden.

A constant watch is now necessary to see that none of the pests that afflict the Roses gains a footing. Hand-picking of grubs and caterpillars, if somewhat tedious, is a certain and effectual plan of ridding the plants of these unwelcome visitors. A very effectual remedy for green fly is to spray with XL All Liquid Insecticide. If a fine spraying syringe is used, this is also a very economical means of keeping the plants clean. It does not stain the foliage. Constant stirring of the surface soil is of the very greatest benefit to the Rose, and in dry weather copious supplies of water at the roots are a necessity if the plants are to be maintained in health and the blooms to be of fine quality. Do not forget that the Roses on walls are much more likely to get dry at the root than those in the open, and treat accordingly. Nor should good supplies of liquid manure be now withheld, as the forming of flower-buds is a severe tax on the plants. Do not apply while the soil is dry.

C. Blair.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE GREENHOUSE.

PLUNGING POT PLANTS FOR THE SUMMER.

THE bulk of soil in many pots is very small, and during the summer-time all exposed pots must cause a great amount of labour in the watering of the soil in them in order to maintain the life of the plants. In the summer there is much work to be done, work which cannot be put off without some harm accruing. Furthermore, it is not to the best advantage of the plants when water—often cold cistern or pump water—is poured into the soil several times a day in very hot weather. To obviate the necessity for such constant watering and labour that it entails, plunge the pots in ashes or sand, or even common garden soil; but ashes or sand are the best if obtainable.

If the work of plunging is not well done, many plants will suffer. There must not be any water-logged pots. If water remains in the pot for an undue length of time, it proves that the drainage is wrong. Every plant should be carefully examined before it is plunged, and if the drainage is blocked it must be put right. Of course, it will not do to plunge all kinds of plants, particularly those of a soft-wooded nature, such as Zonal Pelargoniums. Those, however, of a hard-wooded and semi-hard-wooded nature should be plunged. Indian and other Azaleas may be plunged on the north side of a wall or fence. Tree or winter-flowering Carnations may be plunged in an open position. Acacias and similar kinds of plants should be plunged on the west or south-west side of a wall or fence, and not too close to it. Long boards may be laid down and small pots placed on them prior to packing the ashes or sand around; but large plants should have slates or tiles under them, as the larger the specimens the wider apart they must be. In every case there must be ample space left for the plants to grow in without being overcrowded, as it is necessary to have matured wood by the beginning of the winter season. The plunging material must be heaped firmly around the pots just as deep as the soil in the pots. Do not cover the rims of the latter. It is a mistake, too, to place the plants in a hollow where there is a likelihood of water lying after heavy rains. Space must be left so that the attendant can easily water the plants and ascertain if any particular ones are too dry or too moist.

SHAMROCK.

NEW PERPETUAL-FLOWERING CARNATION EMPIRE DAY.

THE Perpetual-flowering Carnations as a race are steadily winning their way to a front position in the floral world, and it is a pleasure to note the English raisers are not letting the Americans have things all their own way. One of the most beautiful varieties that has ever been introduced is Empire Day. This was raised by Mr. A. Smith, Enfield Highway, and the illustration is from a photograph of the vase which he exhibited at the Perpetual Flowering Carnation Society's show a fortnight ago. It is a clear soft pink of Enchantress shade, the flowers being large, very full, of exquisite shape, and possess fragrance, good calyces and long, stout stems. In addition to winning first prize in the class in which it was shown, this vase of flowers won the society's silver-gilt medal offered for the best vase staged in Classes 5 to 16 inclusive.

THE NEW PERPETUAL-FLOWERING CARNATION EMPIRE DAY.

THE FRUIT GARDEN.

FRUIT NOTES.

HOSING WALL TREES.—The advantages of cultivating fruit trees on walls are many, varied and perfectly obvious, but it is not all amateurs who achieve as good results as they should do, for the very simple reasons that they let the soil about the roots become as dry as dust and allow the young shoots to get so smothered with insect pests that it is impossible for satisfactory health to be maintained. In regard to the first point, watering heavily whenever the soil approaches dryness is the remedy, but the necessity for this will be reduced in some degree by the comparatively frequent hosing of the branches. This is an easy operation to carry out, and it is really wonderful what an excellent effect it has upon the attacks of insect pests; few of these like clean water, and all of them absolutely abhor it when it is applied forcibly through the nozzle of the hose. If this were followed up at intervals varying with the weather and other surroundings, the enemies would never obtain a really firm hold on the trees, and the progress would be proportionately better, while, at the same time, the water would naturally go fa keep the soil about the roots pleasantly m It is hardly likely that the quantity woul sufficient, as the bricks absorb a great dea water from the ground, and in doing so rob trees of their share. Therefore water must specially given from time to time, and al afterwards, when the surface has dried a litt should be pricked over.

THINNING FRUIT.—From the present t onwards the grower should pay close and intelli attention to the thinning of all crops, becaus brings a dual advantage—improvement in present burden and a better chance for the t to build up perfect buds for bearing in the succe ing season. It is imperative that the age, c dition and natural habit of the tree shall b consideration when thinning is in hand, since is certain that no two trees will demand identi treatment. If the number of fruits is reduced anything within reason, the eventual size will larger, the appearance will be better and, what of more importance with many cultivators, quality will be infinitely superior. All th benefits come from the fact that when the t has perfected the seeds it s retains ample energy to attend the development of surroundi flesh or pulp.

LAYERING STRAWBERRIES.—T very prompt grower who fu appreciates the distinct advanta which accrue upon early runn will have commenced this w before these lines appear print, but the majority will o now be thinking about it as operation that must be d within the next few weeks. a matter of fact, it is most i portant that a start shall be ma immediately with a view to sec ing splendidly rooted plants putting in their permanent po tions at the beginning of Augu if not by the end of July, as t allows plenty of time for pro establishment before root progr ceases for the year, which almost always the case in Septe ber. If the pegging down is d in the alleys, it is most desira that a little refuse manure sweet leaf-mould and sand sh be mixed with the ordinary s as rooting will thus be couraged and, in addition, lifting with a ball around roots will be much facilitat When layering either into pots small squares of inverted tu plunging must be had recourse or the labour of keeping the s pleasantly moist will be serio In all instances, except extre shortness of stock, only one run should be taken from each strig, and this ou to be the first or second.

WATERING AND FEEDING.—It must be borne mind that the trees draw immense supplies moisture from the soil now that they are in leaf and are swelling their crops, and unless supply is maintained it is quite certain that grower will lose in some direction or anoth Water should be given in advance of compl dryness of the ground, and it is often especia advantageous to supplement the pure water w two or three heavy soakings of weak liquid manu but this point must be decided upon the merits each case.

FRUIT-GROWER.

THE KITCHEN GARDEN.

THE WAY TO GROW TURNIPS.

THROUGHOUT the summer, and especially during hot and dry seasons, this particular crop to be produced in anything like a satisfactory manner requires considerable attention to cultural details. To ensure the greatest ccess Turnips require a quick, uninterrupted owth, and, in consequence, a wet summer suits m admirably, as then the roots are quickly own and the growth above ound is clean, healthy and e from that obnoxious t so devastating to this ject, the Turnip flea or fly. provide a succession, fre- nt sowings must be made the shadiest parts of the den. A position exposed the full sun during the test parts of the day uld, if possible, be avoided, under such conditions the age becomes much wilted, the roots in consequence eive a check and become y and dry.

For preference, then, choose heltered narrow border and that has been well ked, but free from recent nuring. Rake the bed well n, and mark out and draw shallow drills at a ance of from 10 inches to 12 inches apart. Give prinkling of soot and wood-ashes, the latter in nely sifted condition, and then cover the seed h a rake. Where birds are troublesome, means uld be taken to protect the seed by using fish- ting or black cotton over the rows. An excel- plan, and one which I adopt, especially in dry ther, is to mulch the newly sown bed with short ss mowings. If this is applied before the ground llowed to become dry, it will be found to keep moisture in the ground and aid germination a great extent, as well as being much more ctive than frequent waterings on soil unpro- ed from evaporation. Begin thinning the nts as soon as these are large enough to handle, ely preventing them from becoming over- wded at first, and single out later to about nches apart. If the seedlings are allowed to ain excessively crowded out a prolonged od, considerable damage of an irreparable racter will be done and the importance of y thinning can scarcely be overrated. oughout the growing season keep the nts free from weeds and the surface soil tened by the constant use of the Dutch During showery weather dust the foliage occasionally with soot and apply dressings rtificial manure to the roots. The former is an llent preventive against the ravages of the fly, also dusting the plants with fine road scrapings. ieties, too, should be suited to the season, y oftentimes being sown that are not adapted the season in which they are grown. The wing varieties are excellent for summer cul- : Jersey Lily, Snowball and Model. Veitch's Globe is another good variety that has been tried and proved to be a valuable acquisition a dry summer. Golden Ball, so highly prized exhibition, is by far the best yellow-fleshed nip, and one that is produced much better th of the Tweed, a fact due, I suppose, to the lity.

E. BECKETT.

ldenham House Gardens, Elstree.

THE FLOWER GARDEN.

RANUNCULUS EVENING STAR.

IT is not often that a new Ranunculus is deemed sufficiently good by the floral committee of the Royal Horticultural Society to justify them in granting it an award of merit. The variety under notice, however, received this distinction when shown by Messrs. G. and A. Clark, Limited, of Dover, on the 7th inst. It is said to be a double-flowered form of R. asiaticus, the colour of the blossoms being rich canary yellow, this being somewhat paler towards the margins of the petals.

THE NEW RANUNCULUS EVENING STAR. (*Natural size.*)

THE FORGET-ME-NOT AND ITS CULTURE.

THE Forget-me-nots present a striking instance of the value to which some of our native woodland plants attain under cultivation. As spring bedding flowers they have become indispensable to amateur and professional alike by reason of their adaptability for massing to obtain large breadths of one colour, as edging plants, and, not least, as carpet plants accompanied by bulbous and other spring-flowering subjects of various colours. And, again, they make splendid pot plants for conservatory decoration, calling for only a minimum of attention to secure a good winter display of bloom. Although the range of colour is not great—two shades of blue, blue and yellow in Myosotis dissitiflora, pink and white—it is sufficient to form pleasing contrasts when associated with such Tulips as Keizerskroon and Duchesse de Parma, the Arabis, Aubrietias, Wallflowers and the Munstead Primroses, other things suitable suggesting themselves to the enthusiastic gardener's fertile brain.

Treated as hardy annuals the culture of Forget-me-nots is of the easiest. Given a sheltered situation and a fine seed-bed, the seed may be sown towards the end of June to provide plants large enough to plant in their flowering quarters the ensuing autumn. Dry weather is against free germination of the Myosotis, and it behoves the cultivator to make free use of the water-pot until he is assured that germination is well established. The plants should be pricked out into nursery beds as soon as they can be handled, the beds to be made rich by the addition of some well-rotted manure and old potting soil, to which latter the plants seem particularly partial. The plants need plenty of moisture during the summer months, and must be kept free of weeds by hand-weeding, and the soil stirred up occasionally with a hand-fork or small border fork. In warm soils and quick-growing localities the seed-sowing need not take place until July, as the plants in a normal season make good growth under the above treatment. Sowings made as late as August may remain in the nursery beds during the winter months, and then be planted out the following spring for an early summer display of bloom.

Occasionally purchased seed fails to germinate well, and the consequent stock at disposal becomes limited. A useful method to adopt to counteract such a contingency is to lift a few of the old plants annually, taking care to preserve as much root-fibre and soil to them as possible, and plant them towards the back of the shrubbery borders or some part of the garden where they will not be an eyesore or disturbed. They will ripen and shed their seeds on these spots, and, as is often the case with self-propagated plants, large quantities of healthy seedlings are obtained; these prove extremely useful in case such an emergency arises as that just mentioned.

For pot culture seed-sowing may begin as early as March and be continued at intervals until September, as the demands require it. Sowing in boxes or pans in a warm situation—under glass for the earlier sowings with gentle heat, and a cold frame for the later ones—is the best plan to adopt for this work. The seedlings will require pricking

off into other pans or boxes, and finally they are potted up into 5-inch or 6-inch pots, in which they are to bloom. A compost of two parts loam, one each of leaf-mould, old Mushroom-bed and sand forms a capital mixture for them when potted up. Cold frame culture is the best possible treatment during the summer and autumn months, and they may be taken into the houses in batches for successional blooming as required.

Most of our leading seedsmen stock special varieties, with distinctive colours and habits, obtained from the earlier types by crossing and rigid selection, and these can generally be relied on to come true to the catalogued description, thus making it easy for the grower to make his selection according to taste and requirements. Of the older varieties I make a selection, giving precedence to Myosotis dissitiflora, a bright blue with a yellow eye, height about 9 inches, a native of Switzerland. M. d. alba is a white form of the above. M. alpestris is a light blue variety, an alpine of Swiss origin, extremely useful as a dwarf bedder; height 6 inches. M. a. alba is identical with the former, excepting that its colour is white. M. azorica is the best dark blue, dwarf and compact, height 6 inches, and hails from the Azores. M. sylvatica is of a spreading habit, somewhat tall in height—about 1 foot—and has blue, pink and white varieties. M. palustris is our native Water Forget-me-not, found in damp situations all over the British Isles, a charming blend of blue and yellow in colour, and second only to M. dissitiflora for bedding purposes; height 9 inches. M. arvensis alba is the British Corn-field Forget-me-not; height 6 inches. M. rupicola is the Scottish Rock Forget-me not, and looks best when planted in the wilder portions of the rock garden. M. palustris begins to flower the earliest of any of the varieties, and remains in bloom the longest. M. azorica is the latest to come into flower towards the middle of August. J. C. W.

SAXIFRAGA MILESII.

When first raised from imported seed, this Himalayan Saxifrage, of the section Megasea, finished flowering at the end of June, thus proving the latest of all the species and varieties of the group to bloom. Since then it would seem to have become more acclimatised to our seasons, and finishes flowering four to six weeks earlier. With me the flowers were pure white and quite conspicuous by March 25 of the present year, and the last of the flowers faded about the middle of May. The plant is most nearly allied to S. Stracheyi, but the leaves are not heart-shaped at the base, but taper downwards from the broad top, and are very handsome when full grown and 9 inches to 12 inches long. The plant is perfectly hardy, having stood the last two winters without protection of any sort. It delights in a sunny position, which induces it to develop flowers more freely, and should be planted where its large leaves will not be exposed to cutting winds in winter and spring. Positions of this sort can easily be found in most gardens, either in the herbaceous border or on prominent parts of the rock garden, where its beautiful evergreen foliage will be seen to advantage. The seed was originally gathered at an elevation of 11,000 feet in the North-western Himalayas and imported by Mr. Frank Miles of Chelsea, after whom it is named. J. F.

A GOOD BED OF EREMURI.

The excellent bed of Eremuri shown in the accompanying illustration is in the garden of Manor House, Eastbourne, and the photograph was kindly sent us by Mrs. Davies, Grosvenor Gardens, London, S.W. These noble plants are specially adapted for filling large beds such as that shown in the illustration, and also for any other position where a bold effect is desired. During recent years raisers of new plants have devoted much time to the Eremuri, and we now have a charming variety of flowers.

A BED OF EREMURI IN THE GARDEN OF MANOR HOUSE, EASTBOURNE.

TREES AND SHRUBS.

SOME RARE FLOWERING SHRUBS.

Xanthorrhiza apiifolia.

This is a somewhat inconspicuous yet most interesting, low-growing shrub. It is commonly known as the Parsley-leaved Yellow Root, and is most appropriately named, as the creeping rootstocks soon form a little colony and throw up numbers of suckers. The flowers, which appear in early summer, are dark purple and borne in large panicles in comparison with the other dimensions of the plant. A somewhat shady, damp spot near a running stream seem suit it admirably. A native of the United Sta the plant has been introduced upwards of a cent

Prunus Padus (Bird Cherry) Albertii.

Few trees are more effective at the time writing (late May) than the above. Such a cided improvement on the old form, and such acquisition, has tempted me to pen a few line its favour. The long racemes of flowers w recently wreathing the trees, and the most casual server notices the improvement on the common B Cherry. The growth is vigorous and, trained standard shape, forms a symmetrical and eleg tree.

Cytisus purgans.

This low-growing Broom is now passing out flower, but has been a grand sight. As it is qu hardy, it may be included in ev collection. For the fore part the shrubbery, or even the ro garden, it would be difficult surpass, as the pure yellow flow are borne with wonderful p fusion. It is quite the earliest have to flower, coming consid ably in advance of C. præcox, b to which in growth it bears resemblance.

Veronica canterburyana.

For neatness of habit this lo growing evergreen shrub with miniature foliage would inde be difficult to surpass. It mak a perfect little gem for a fro position on a sunny border. cold localities, however, it none too hardy, and should protected slightly during t winter months as a precautio The plant is now producing pure white, starry flowers abundance from the termin points of last year's growths.

Cytisus kewensis.

Of garden origin, the result a cross between Ardoini and albu this hybrid is now a beautif object, and for freedom of flowe ing could not be outclassed. spreading growth, it quick forms a neat bush, and is no producing its creamy whi flowers from every portion its growth, which it practical hides. E. Beckett.

A LITTLE-KNOWN LILA

(Syringa Bretschneideri.)

This is an ornamental speci which blossoms a few weeks lat than the garden Lilacs, and worth planting either as a shrubbery plant or form an isolated specimen. A native of Norther China, it was by one authority considered be a form of the Himalayan S. Emodi, an appeared under the name of S. Emodi rosea. has, however, been found to be quite distinct fro that species, and the name which heads this no is now adopted. It is a strong-growing shrub The leaves are oval and measure 4 inches t 5 inches in length and 2 inches to 2½ inches i width, the upper side being green and the lowe surface glaucous. The flowers are rose-coloured an similar in shape to those of the garden Lilacs, excep that the tube is somewhat longer and narrower The inflorescences are, however, very muc larger and looser. Altogether it forms a decidedly showy shrub, and, next to the well-known species vulgaris and persica, is the best to cultivate

THE ROSE GARDEN.

OT ROSES AFTER FLOWERING.

EAR too frequently our pot Roses get neglected as soon as flowers come in from the open. At this time the main crop of flowers under glass is over, but that is no reason why the plants should not receive continued ention. In fact, neglect at this stage will tainly result in unsuitable growth for future ing. Cut away weakly wood and let the nts be stood in a sheltered position outside, ing proper attention to watering and making e hot sunshine does not come full upon the pots. s and drying winds are very injurious to the ts. Either half plunge the pots or place a rd around the exposed outsides; the inner nts will protect one another. I notice this lect with far too many plants after their present rm is past, and one cannot reasonably expect after-results to be in any satisfactory. When they are ly ripened and have had a few eks' rest, some may be repotted others have their drainage rhauled. By removing a little the surface soil, so far as can be e without injuring the roots, a y beneficial mulch of fresh post can be applied which will a great help to new roots r on.

By resting the plants as much possible during the summer nths we lay up better forces late winter or very early ng Roses. Most growers find t to get good Roses from Christ- s until the first come in again n sheltered walls, the plants st have as much rest as pos- e during the hot days of mer. We find this resting es place naturally in the Riviera, ere from May until September Roses lose many of their ves and are almost dormant. s this condition our pot Roses uld be encouraged towards ing the summer. Then if we ne and repot as may be neces- y in October, they will come on steady treatment and be far re amenable to winter forcing. e chief points are to keep them steady growth until the buds e formed, after which a little more heat will be ful, and few flowers are more acceptable than a d Rose in the dead of winter. Nor can we lay much stress upon the advantage of growing se varieties that have fewer petals and, conse- ntly, expand more freely than the double vers, which fail even in summer if the weather is bright and dry. Killarney, Safrano, Sunrise, e. Falcot, Richmond, Betty and flowers of similar ucture are the best for our purpose.

BANKSIAN ROSES.

culture of these is well known; but more than e last summer my attention was called to what considered an inferior form of the white iety. There are two distinct varieties. The generally grown has clusters of double flowers, reas the other (Fortunei or fortuniana) carries tary blooms. The flowers are much larger and re rosette-shaped, about the size of a penny. is by no means so satisfactory as the old iety that was sent out upwards of 100 years ago. One can readily pick out the two varieties from their foliage; Fortunei is shiny upon both sides, Banksia alba only on the top of the leaf. The Cluster White is very sweet-scented, and has been likened to that of Violets. There is a yellow double form of this that is most beautiful, and recently the old single yellow has been brought forward; but I do not anticipate it will supersede our other yellows of hardy nature. The double white and yellow clustered forms are very beautiful, but need a warm and dry position, when they are among the earliest and most pleasing. A. P.

THE NEW ROSE EXCELSA.

LAST year at the Temple Show, American Pillar was the most sensational variety exhibited. This year it was Excelsa, a most brilliant production of that prince of Rambler raisers, Mr. M. H. Walsh. Excelsa is equally as brilliant as Hiawatha, but its blooms are double or nearly so, there being about five rows of petals. Its graceful, pendulous habit, typical of the true wichuraiana Roses, will cause a large demand for the variety as a weeping Rose. The elegant examples on tall stems which Messrs. Paul and Son of Cheshunt arranged with such effect in their gold medal group were quite the most conspicuous among a very charming variety of other weeping sorts, and the Rose deservedly received an award of merit. The same variety was also well shown in the gold medal group of Messrs. William Paul and Son of Waltham Cross, but in pillar form. In Excelsa and Hiawatha, together with Dorothy Perkins, White Dorothy, Lady Godiva and Dorothy Dennison, we have six most distinct and charming varieties, all of pendulous growth and all flowering about the same time of year, namely, about the middle of July, and continuing well through August and even later.

ROSA BRACTEATA MARIA LEONIDA.

MOST of us are familiar with the single Macartney Rose Alba Simplex, but the above-named variety is not so well known. Perhaps it is that the wichuraiana Roses have usurped the position this Rose once held, that of providing a pretty-foliaged edging to beds. Its shoots used to be pegged down in spring and clipped in June, with the result that we had a lovely display of its beautiful creamy white blooms in autumn, set off by the pretty shining foliage. The pegging down and clipping had undoubtedly the effect of compelling a free blooming, because when grown as a free bush the flowering is not so abundant.

The Macartney Roses are not quite hardy, being natives of China, whence they were introduced to this country in 1795. The single white is a beautiful object when planted against a south wall. Both varieties, for there are but two, prefer a nice dry and warm position.

THE HYBRID SWEET BRIARS.

As each June recurs, our feeling of indebtedness to the late Lord Penzance for producing the delightful Briars that bear his name is increased, and we make up our minds to plant hedges of them when autumn returns. There are now some sixteen varieties, and from a cursory glance many of them appear to be too much alike; but there is, on close observation, a decided distinction. The beautiful variety Catherine Seyton, illustrated herewith, is known by its golden anthers, which are very prominent. It is also freer flowering than some of the other varieties; in fact, it may be said to be perpetual. Lord Penzance himself advised that the old blooms should be removed from all the varieties instead of allowing them to seed, and this has the tendency to give the varieties more or less a perpetual-flowering character. The blooms of Catherine Seyton are a very pleasing tint of soft rosy pink. Speaking of these Penzance Briars, I would advise all amateurs to save any ripened seed that may appear where pods are not rigidly eliminated, and sow in November in a cold frame where mice can be excluded. Some very beautiful novelties may be obtained, which may, perhaps, be an advance upon existing varieties, and in some cases the number of petals is increased. P.

HYBRID SWEET BRIAR CATHERINE SEYTON.

GARDENING FOR BEGINNERS.

HOW TO EARTH-UP POTATOES.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—Tomato plants on walls and fences are now growing rapidly, and the cultivator must pay close attention to the work of removing all side laterals, as if the latter are left on they will not only rob the plants of much nourishment, but prevent the free formation of fruit-trusses. The recent spell of very hot weather warmed the soil considerably, and the heavy rains following have hastened the growth of the plants. The lower trusses of fruits are now set and are swelling nicely, and in the ordinary course some feeding would now be advisable; but owing to the exceptional weather conditions above referred to, it would be much the wisest plan to defer feeding for quite ten days, as over-luxuriance of growth would predispose the plants to disease. Try to secure a steady, firm growth, and tap the flower-trusses at noon on bright days in order to induce fruits to set freely. Unless Asparagus is required for special purposes, the sticks should not be cut after this date, but allowed to run to "grass." All very weakly shoots, though, must be cut off just below the ground-level; then pull up every weed that can be seen and give the beds a thorough soaking with weak liquid manure. Seakale plants are now producing their flower-stems, and the latter must not be allowed to grow and develop their flowers, but be cut off at once. All main leaves, however, must be preserved. A thorough watering with weak liquid manure, in which salt has been dissolved at the rate of 1oz. to two gallons, will strengthen the growth of the plants very much.

Flower Garden.—A flower garden may appear to be extremely neat and free from leaves, sticks and other foreign matter prior to the coming of a storm; but after the latter has expended itself the general appearance is altered. Paths require sweeping and plants tying up; probably gravel and soil have been washed out of position and must be replaced. Do not brush the paths lengthwise, but from the sides to the centre, and then gather up the rubbish there, as by doing so the workman replaces much fine grit that has been washed from the centre to the sides. Sweet Peas are now in prime condition, and cultivators will be able to appreciate the merits of new varieties and to again revel in the glory of the old ones. The owners will be tempted to allow plants of the newer varieties to flower very freely, but it would be bad for the plants if they bore many seed pods. Cut the blossoms every day, and then more will develop. Feed the plants freely; 2oz. per yard run of row of superphosphate of lime will have a beneficial effect if the powder is well watered in and not put on or too near the stems of the plants. Nitrate of soda, 1oz. to each yard of the row, may also be given occasionally. Asters and Stocks growing by themselves in borders should be mulched with rotted manure at once. It is really wonderful how much such a top-dressing assists the growth of the plants and improves the quality of the flowers.

Fruit Garden.—Early rooted layers of Strawberries are valuable both for forcing in pots and also for forming new plantations. Some cultivators, however, defer the work of layering until the fruit is all gathered; but I should not hesitate to do it at once, as it can be carried out without in the least interfering with the ripening berries. One layer on each runner will be sufficient to retain; all the others beyond that one on the same runner must be cut off. The layer intended for forcing should be grown in good compost from the beginning. Use fibrous loam, a very small proportion of sweet leaf-soil free from bits of wood, and a small quantity of horse-manure rubbed through a half-inch-mesh sieve. If obtainable this is the best compost for layering all Strawberries in. Use small pots, and half plunge them in the soil near the parent plants. Gather all ripening fruit while it is dry every day. The berries must not be quite ripe if they are to be packed and sent to a distance by post or rail.

Greenhouse and Frames.—Plumbagoes, and Bougainvilleas trained under the roof-glass similarly to Vines are now flowering, and must have some stimulating food. Approved artificials, given according to the directions with each, may be used, or weak doses of liquid manure. Copious supplies of clear water must also be applied at this season, especially if the plants are growing in a well-drained medium. Early Primula and Cineraria plants must be pricked off at once into pans well drained and filled with a light, gritty compost. A small quantity of old mortar rubble, sifted, should be added, as these plants thrive in it. The main batch of plants for flowering next spring must be raised from seeds sown now in shallow pans. The position should be a cool one and not fully exposed to the sunshine. A. A.

1.—POTATOES READY FOR EARTHING-UP.

EARTHING-UP POTATOES.

ALTHOUGH this is a very simple operation, it is astonishing how ignorant many amateurs are respecting this very necessary work. The moulding or earthing-up of main-crop Potatoes is a matter requiring immediate attention, and I hope to show in simple fashion how this should be carried into effect. All too frequently the work is left too late, and then there is a considerable

2.—THE SAME PLOT OF POTATOES AFTER THE FIRST EARTHIN HAS BEEN DONE.

doubt whether it is beneficial to carry out th work. It is wise and advantageous to the cro to begin to earth-up as soon as the growths are som 6 inches more or less through the soil. Should th garden soil be of a heavy, retentive character, it is good plan to lightly fork over the soil between th rows of plants, as this facilitates the better an more satisfactory earthing-up of the plants.

Assuming there are several rows of Potatoes t be earthed-up, begin at the outside row, using a ordinary garden hoe and drawing the earth up t the plants on one side at a time. Go through th whole of the rows on the one side only first, return ing through successive rows on the other side unti the whole area has been dealt with. In this wa footmarks are obliterated and the work is complete in neat and pleasing fashion. In Fig. 1 a sectio of a few rows of Potatoes that are in fit conditio for earthing-up is shown. If left much longer the growths will become tall and unwieldy an earthing-up cannot well be done as it should be The earthing may be repeated at short interval until ample protection to the crop is provided. I Fig. 2 a section of several rows of Potatoes tha have been earthed-up a second time is shown This gives a very good idea how this work shoul be done and the neat and tidy appearance of th rows when the work is completed. D. B. C.

LILIUMS IN POTS.

THERE are few lovers of gardens who do not highl appreciate the Lily. Both in open borders and i pots in the greenhouse the Lilium forms a strikin feature. The flowers are not only pure an fragrant, but very stately in appearance, even th smaller-flowered varieties attracting close atten tion. After potting the bulbs and subsequently giving them water as they require it, we canno say that all has been done that is necessary fo the well-being of the plant. No; there is some thing else needed in order that we may reap th full beauty of the flowers. Repottings, top dressings and feeding have a lot to do with th successful cultivation of these elegant plants Sometimes the bulbs are first potted in large pots in such cases the pots are not more than thre parts filled with the compost. All specimens s treated will now require top-dressing with fibrou loam and sweet leaf-soil in equal proportion with a small quantity of well-decayed manure an some sand added. Those stem-roots that grow

t above the soil must not be broken off, but efully buried under the top-dressing material, ich they will soon permeate. There will no necessity to place such plants in larger pots. ose specimens first potted in smaller pots must v be finally repotted, the compost being the ne as that used in the case of top-dressings. iums require plenty of air, and they must not overcrowded in the glass structure, else many ver leaves will be lost. The ends of the growing ms must be kept quite free from green fly, so t the young flower-buds will not be crippled. the plants are appreciated in the flower-beds, ne of them may be plunged there, burying the s just below the rims. During July, August l September they look charming so grown. ium auratum, L. speciosum album, L. speciosum eum, L. Melpomene and L. Krætzeri are very e for this purpose. AVON.

REMOVING SPENT PANSY BLOSSOMS.

frequent intervals throughout the flowering iod, readers of THE GARDEN have been advised remove the spent blossoms and seed-pods that y have developed on their Pansy plants. When s work is done regularly and systematically it of immense benefit to the plants. It is an parently insignificant detail of culture, yet it the one item of work that is responsible for intaining the plants in good health and in a ust condition. Fig. 3 shows how the spent ssoms should be removed and how not to this work. The growth on the right very arly indicates how the old blossoms should removed in their entirety, *i.e.*, the flower-lks should be broken out from the axils the leaves of the growth, thus concentrating the energies of the plant on the buds and blos-ns that continue to evolve. In this way success practically assured. The growth on the left ws how this work is frequently done. Growers ough want of knowledge often just pinch off bloom, leaving the flower-stalk undisturbed. t only is this unsightly, but so long as the wer-stalks remain on the plants they continue draw upon the resources of the soil for their intenance, at least for some time, and yield no urn. D. B. CRANE.

POTTING PLANTS TOO DEEP.

NY think it is easy to pot or repot a plant, but re is far more skill required in the potting of a nt properly than is often realised. When nts look sickly the potting compost is found lt with, whereas the way in which it was used ften the real cause of the plants not growing isfactorily. If the stems of the plants are duly buried in the soil, they rarely grow freely, and netimes they die. I will refer to a case where ne large trees were killed through the same se. In order to dispose of some surplus mould, certain person had it heaped around the trunks the trees in question to a depth of about 4 feet. sult, the bark was ruined and the trees died. stones or bricks without mortar had been placed as to keep the soil from touching the bark, the es would have lived; but even then the covering the roots to so great a depth was unwise. Two nths ago I purchased a few Zonal Pelargoniums, t they did not thrive as well as I wished. The verse weather conditions might have been med for this, but I knew there must be some er reason for the bad appearance of the plants, I turned out a few of them and found that the ms were buried nearly 2 inches under the soil. ! what bad potting work had been done, and at sad results followed! The plants would ve been better if they had been left in the smaller pots. I duly repotted them, leaving the roots almost on the surface; they were merely covered with soil, and in a short time the plants began to recover normal health. The roots of plants are nearly always much more plentiful near the bottom of the pot than at the surface, so on this account also the inexperienced grower would do well to keep the old ball of soil well up when repotting work is done. It is a good plan to note the original mark on the stem made by the soil, and to repot exactly to that mark again. The surface of the old ball of soil and roots ought never to be buried under much new soil; the merest covering is sufficient. Of course, there are a few kinds of plants of a very soft-wooded nature that emit roots from their stems when the latter are buried. Liliums, for instance, do this; but all hard-wooded kinds do badly if their stems are unduly covered with the potting compost.

STOPPING AND REPOTTING PLANTS.

A PLANT is stopped or pinched in order to increase the number of its shoots, and also with the further

3.—ON THE LEFT IS SHOWN A SPRAY OF TUFTED PANSY FROM WHICH THE DEAD BLOOMS HAVE BEEN REMOVED IN THE WRONG WAY. ON THE RIGHT IS SHOWN A SPRAY FROM WHICH THE DEAD FLOWERS HAVE BEEN PROPERLY REMOVED.

purpose of "timing," that is, regulating the growth of the plant generally, so that flowers will be borne on it near a given date. Stopping means the removal of the extreme point of a stem, only a small portion being taken off. New shoots mostly grow from the end of a branch, and as the wood there is the softest because it is the youngest, the new shoots grow rapidly. It is not advisable, however, to stop a plant and at the same time to repot it. I know there are either careless or incompetent cultivators who pinch back plants while they have them on the potting-bench. This is wrong. The very act of pinching off shoots causes a slight check to the growth of the plant, so also does the act of repotting. So we at once see that to both stop and repot at the same time would mean a double check, and it must be avoided. The proper time to pinch off the ends of the shoots is either ten days prior to the repotting or about ten days after. If this is done, the check to growth will be a minimum one. SHAMROCK.

THE TOWN GARDEN

PROTECTING STRAWBERRIES.—The now rapidly swelling fruits of the Strawberry should be protected from pelting rain-storms by using short grass or clean straw about the plants. Where these are not easily obtainable, a few split sticks arranged about the plants to fix the trusses into will prevent the fruits coming into contact with the soil. Twigs of Hazel or Birch are very useful for such purposes, and not only do these things assist to keep the fruits clean and out of the reach of insect pests to some extent, but, what is equally important, materially hasten the ripening process, and add not a little to good flavour by a more complete exposure of the entire fruits. All runners not required for layering should be cut away as soon as noted.

TREE OR PERPETUAL-FLOWERING CARNATIONS. Freshly potted plants of these now standing in the open should be kept well supported by sticks to prevent the loss of any of the main branches, as the latter, by reason of their increased weight after having been stopped, are apt to break away at the joint as a result of wet or strong winds. Where young stock intended for winter work has still to be potted, this should be done without delay, giving the plants a liberal shift to enable them to make headway. Those of my readers who possess old stock plants of these perpetual-flowering Carnations for which they have no further use should plant them out in the garden. Not only is this an economical way of dealing with the plants by saving much time in watering, but the number of good flowers produced later on will be a matter for surprise and pleasure. We have had excellent and well-coloured flowers from such plants so late as September and October, when they are most welcome.

NEWLY PLANTED PERENNIALS.—Too frequently the later plantings of all herbaceous perennials suffer because of neglect after planting, and in such matters to be forewarned is to be forearmed. In the case of soils that quickly cake on the surface—sealing up, as it were, all the pores of the earth's skin—a frequent stirring of the soil, admitting light and warmth with all its attendant advantages, will be of much benefit; while those of a stiff, heavy nature, and such as are liable to contract in times of drought, should be mulched early to retain the moisture.

WATERING PLANTS.—The amateur or town-dweller who delights in his garden is never better pleased, perhaps, than when, having finished the "daily round, the common task," he gets into his garden to water his plants. Too frequently, however, with hose-pipe in hand and smoking the "pipe of peace," he is preoccupied in thought and, for the moment, forgetful of the stream of cold water that is being set free. Now, a thorough soaking of water is all very well in its way, while cold water after a day of great heat, if given in quantity, is often dangerous in the extreme. The sudden failure of Sweet Peas or culinary Peas, often attributed to sunstroke, is more frequently brought about by injudicious supplies of cold water directed at the root of the plant. The result is a chill, and, for all one knows to the contrary, the plant may have died of shock to the system or from some other cause equally probable. The moral is to avoid contact with the plant, directing the stream of water to the surrounding soil. For pot plants and all delicate-rooting subjects sun-warmed water is the best, and, rightly applied, is a great help.

POLYANTHUSES FROM SEED.—The raising of these popular spring flowers from seed is easy enough if rightly performed, though failures are not uncommon, because of neglect or inexperience,

Very soon now the seed crop of the present season will be ripening, and when it is seen that the seed-pods are bursting, the seeds may be gathered and laid on a tray to fully ripen. When the seeds are ready, sow them in the open ground in some continuously cool spot, adding to the prepared bed some fine soil on which to sow the seeds. Water thoroughly after sowing thinly on the surface. The seeds in these circumstances require no soil covering. E. H. JENKINS.

NATIONAL VEGETABLE SOCIETY.

REPORT of the committee on the trials of autumn-sown spring Cabbages conducted respectively at Twickenham, Middlesex, Sutton Green, Surrey, and Romford, Essex.

AUTUMN, 1909—SPRING, 1910.

In response to the invitation of the committee to various well-known seedsmen, thirty-nine stocks of Cabbage seeds were sent in by nineteen diverse firms, as follows: Messrs. Austin and McAslan, Glasgow; Messrs. James Carter and Co., Holborn; Messrs. Daniels Brothers, Norwich; Messrs. A. Dickson and Sons, Belfast; Messrs. Dickson, Brown and Tait, Manchester; Messrs. Dickson and Robinson, Manchester; Messrs. Dobbie and Co., Rothesay; Messrs. Hurst and Son, Houndsditch; Messrs. W. W. Johnson, Boston; Messrs. Kent and Brydon, Darlington; Messrs. Pearson and Son, Nottingham; Messrs. Sutton and Sons, Reading; Messrs. James Veitch and Sons, Chelsea; Messrs. Robert Veitch and Sons, Exeter; Messrs. Vilmorin-Andrieux et Cie, Paris; Messrs. Watkins and Simpson, Covent Garden; Messrs. Webb and Sons, Wordsley; Messrs. Wheeler and Son, Warminster; and Messrs. Yates and Son, Evesham, to all of whom the committee's sincere thanks are gratefully tendered.

The seeds were all forwarded to Mr. G. Wythes, V.M.H., treasurer, who, with Mr. Owen Thomas, V.M.H., kindly undertook to duly divide, number and forward them under number only to the respective trial stations. The various designations of the stocks sent were absolutely withheld from all by these gentlemen. The instructions sent to each station were that one portion of each stock should be sown on July 31, 1909, and a second sowing be made on August 14, thus enabling duplicate plantings and trials of each variety to be made. These dates for such purposes were carefully observed, and in each case plantings were performed almost simultaneously so soon as the seedling plants were fit for such purpose. The trial sites were in open fields in very exposed situations, and were conducted on strictly market garden lines. The Twickenham soil was of a fairly retentive loam on a deep base of gravel, that of Sutton Green a very sandy loam on a base of yellow sand, and that of Romford on clay. Distances apart in rows, lengths of rows, thirty plants in each, and general culture were identical, no special treatment having been furnished.

Mr. G. Hobday of Romford having reported that on his stiff, wet clay his earliest planting of the Cabbages had failed, visits by the trial sub-committee were paid first to Twickenham (Mr. William Poupart's field) on April 21, and to the Times Experimental Station, Sutton Green, Surrey, on April 22, their observations then made being chiefly limited to the first sowings and plantings for the trials. On both occasions very full notes were taken by the members of each stock, and after careful comparison the following marks and classification, based exclusively on the first sowing or first early merits of each variety, were unanimously agreed to. The members also agreed that, to secure quite early, firm hearts in the spring, sowings of the best varieties should always be made at the end of July or early in August. It is specially worthy of notice that several varieties bolted to flower badly from the first sowing, but evidenced that defect very slightly from the second sowing.

It is interesting to record that the later or August 14 sowing of all the previous named varieties should have shown in the first place much later hearting and generally much more leafy production, but also that in scarcely a single case did any of the plants bolt to flower. Even those varieties of which, when sown on July 31, every plant bolted, gave not more than 5 per cent., and in some cases not more than 1 per cent., of bolted examples when sown at the later date. None the less, there can be no doubt that such varieties are better suited for spring than for autumn sowing. Visits to the trials in all three cases, some two to four weeks later, showed that while all those varieties selected as the best and earliest maintained their character, some others were in very good form, though all distinctly later and more leafy. Some two or three varieties were specially so, and hardly merit garden cultivation.

The Romford trial from the second sowing on Mr. G. Hobday's stiff soil practically reproduced the results of the second sowing and planting at both Twickenham and Sutton Green, although growth was perhaps rather more leafy. In every case the trials were most ably, admirably and impartially conducted.

In presenting this return of the respective merits of each variety, not only in relation to earliness of hearting and to trueness of stock, but also in relation to bolting to flower tendencies, the committee strongly emphasise the importance of securing stocks that are very early hearters, but are also rigidly true in character. Still further, having regard to the fact that no fewer than eleven stocks bolted off to flower prematurely under the earliest conditions of planting, and that several others showed from 5 per cent. to 10 per cent. of bolters, as well as being very irregular in character, seedsmen are strongly advised to specially catalogue all such for spring sowing only. It would greatly help customers were Cabbages classified as small hearting, first early, medium hearting or main crop varieties, and if all those which bolt to flower freely from autumn sowings were classed as best fitted for spring sowing and summer hearting. In relation to the two first-named sections, it should be stated that small first early hearting Cabbages may be planted as close as 12 inches apart, the breadth being cleared from the ground as fast as cutting proceeds. The second or stronger main crop section should be planted in rows 24 inches apart, as with these the stems can remain to sprout till the following spring.

The committee's warmest thanks are given to Mr. W. Poupart, Marsh Farm, Twickenham, for his great kindness in so admirably conducting his trial; to Mr. Charles Foster, the Times Experimental Station, Sutton Green, Surrey, for similar and most valuable services; and to Mr. G. Hobday, Romford, for his later trial. A special feature in both early trials was found in their great similarity of results. Special and most grateful thanks are due also to Mrs. Poupart, Mrs. Foster and Mrs. Hobday for generous and welcome hospitality.

The committee desire to mention that the trials of seventy-two stocks of Onions sent in by the before-named seedsmen were duly sown under number on August 20 last in long rows, and plants from each row have been lifted and replanted in duplicate rows, thus presenting every appearance of providing first-rate trials of bulbs in July next. Similar trials are conducted at Twickenham and at Sutton Green. At the latter place also will extensive trials of early Dwarf Peas and ea Potatoes.

(Signed)
ALEXANDER DEAN, V.M.H. (Chairman)
May 30, 1910.

THREE MARKS OR HIGHLY COMMENDED.

For Special Earliness and Excellence.

First and Best, Messrs. Hurst and So Houndsditch.

Harbinger, April and Flower of Spring, Mess Sutton and Sons, Reading.

Ellam's Selected Early and Wheeler's Imperi Messrs. James Veitch and Sons, Chelsea.

Early Market, Early Feltham and Myat Offenham, Messrs. Watkins and Simpson, Cove Garden.

Wheeler's Imperial, Messrs. Wheeler and So Warminster.

Early Evesham, Messrs. Yates and Son, Eveshar

TWO MARKS OR COMMENDED.

All Best Suited for Later Hearting.

Heartwell Marrow and Mammoth Beefhear Messrs. James Carter and Co., Holborn.

Harbinger (not Sutton's), Messrs. Dickson ar Robinson, Manchester.

Milecross Marrow and Improved Excelsio Messrs. Dickson and Son, Belfast.

Select Early Rainham and Selected Wheeler Imperial, Messrs. Hurst and Sons, Houndsditch.

Blackwell Early, Messrs. Kent and Brydo Darlington.

Conqueror, Messrs. Pearson and Sons, Nottin ham.

Ellam's Early Dwarf, Messrs. Robert Veitc and Son, Exeter.

Nonsuch, Messrs. Watkins and Simpson, Cove Garden.

Birmingham Market, Messrs. Yates and So Evesham.

The following varieties received one mark only Earliest and Best, First Crop, Flower of Sprin (not Sutton's), Emperor and Market Garden.

The following stocks very largely or entirel bolted to flower prematurely from July 31 sowing Express, Model, Early Garden, Little Queen, Earl Conical, Early Express, Earliest Excelsior, Earlie of All, Paris Market and Express Extra Early.

The following lists are specially appended b Mr. Charles Foster of the Times Experimenta Station, Surrey, as indicating the results of h observations of the growth of each variety fro the later sowings and plantings on his sandy soil.

Extra early hearting for early August sowin and September planting. Recommended to b grown 1 foot square. Varieties: Ellam's Earl Dwarf, Sutton's April, Veitch's Selected Ellam' Birmingham Market (Yates), Early Market (Wat kins and Simpson), Harbinger Extra Earl (Sutton), Wheeler's Imperial, Improved Excelsio (Dickson's), Early Rainham (Hurst and Son Johnson's First Crop, Conqueror (Pearson), Earl Offenham (Watkins and Simpson) and Blackwe Early (Kent and Brydon).

Early hearting for August sowing, medium size for planting 18 inches square. Varieties: Heart well (Carter's), Beefheart (Carter's), Milecros Marrow (Dickson), Johnson's Market Garden First and Best (Hurst), Early Evesham (Yates Nonsuch (Watkins and Simpson), Early Felthan (Watkins and Simpson), Flower of Spring (Sutto and Sons), Emperor (Webb and Sons), Earlies and Best (Dickson and Robinson) and Harbinge (Dickson and Robinson).

The following varieties are recommended fo spring sowing or for autumn sowing after August 14 in the South of England. Sown August 14. These are, May 19, excellent in every

, good hearts and very even stocks, equal he best of the other varieties sown on the date ned. They are worth three marks, being com- t in growth with conical hearts. Carter's del, Extra Early Express (Vilmorin), Earliest All (Veitch, Exeter), Dobbie's Earliest and le Queen (Daniels).

he following varieties were not so good, with er leaves more spreading: Early Garden, ly Conical, Excelsior, Paris Market and Early ress.

THE EDITOR'S TABLE.

Magnolia Watsonii.

Ir. Reuthe, The Fox Hill Hardy Plant Nursery, ton, Kent, kindly sends a flower of the beautiful gnolia Watsonii. This Japanese kind is now l known to all who are interested in the Magnolia. flowers are creamy white, set off with deep nson filaments about 5 inches across, and appear the month of June. Besides the peculiarly utiful colour, the fragrance is strong and et. It is one of the gems of its race.

Rhododendrons from Knap Hill.

Ir. Anthony Waterer sends from his beautiful sery at Knap Hill, Woking, a charming es of Rhodododendron flowers gathered from hes in the open ground. All the kinds named ow are excellent in all ways—strength of colour, dom of flowering and size of cluster. It may taken as a very good selection of the finest ododendrons in bloom at this season: F. L. es, a striking flower, bright rose pink; Mrs. rge Paul, blush, with rosy coloured stigma, e flower; Martin Hope Sutton, glowing crim- the florets dotted with black; B. de Bruin, d red crimson, frilled edges; Mrs. R. G. Shaw, mauve shade, with large black blotch on the er segments; Doncaster, bright crimson, a ndid Rhododendron for massing; Memoir, h, with greenish yellow spot; Mrs. J. P. e, soft mauve, bright rose stamens and dull ow blotch; Lady Grey Egerton, rose lilac, yellow spot; Mrs. Charles Sargent, rose let, with fringed petals; Mrs. Samuel Simpson, te, pale chocolate on the upper petal; Joseph tyr, bright rose, yellow throat; Marie van tte, blush, yellow spots; Mrs. Anthony erer, blush; G. A. Sims, rich crimson, dotted black; A. B. F. Mitford, glowing crimson; F. D. Godman, carmine, with crimson-black .

Flowering Shrubs from Sussex.

r. E. Smith, The Gardens, Sheyswell Manor, ingham, Sussex, sends us flowering sprays everal hardy shrubs which at this season are beautiful. We have seldom seen Pernettya ronata flowering more freely than the examples by Mr. Smith, who writes: "I am sending a small collection of flowers now open here your table, viz., Magnolia conspicua Lennéi, rnum plicatum, V. tomentosum Mariesii Pernettya mucronata. All these do well in pen in a loamy clay soil and without winter ection."

An Old-fashioned Rose from Cambridge.

ss Kenny, Westbye, West Road, Cambridge, s flowers of the old Bourbon Rose Robusta, scent of which is very sweet. Miss Kenny s: "I am sending for the Editor's table a specimens of an old-fashioned Rose whose redeeming feature is its exquisite fragrance. s flowered in my garden for at least thirty , and I should be glad if possible to learn its ."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Information about Lily disease (*G. E. D.*).—Yes; the Lily disease is decidedly contagious, and every effort should be made to prevent the disease from spreading by destroying the parts of the plants which are affected by fire before the spores are produced. The blackening of the tips of the leaves may possibly be due to the disease. The attack often begins just at the level of the soil.

Seedling Carnations (*W. E. T.*).—It is impossible to say what you may expect in any batch of seedlings. The seed may be from the finest strains existing, but the progeny may be a long way behind the best-named sorts now in commerce. They may, indeed, be a worthless lot or the batch may contain a few of the very highest quality and quite new to boot. Thousands of seedlings are raised each year that only fail by a point or two to reach the highest degree of perfection, and these, while valuable enough for border decoration, have no chance against the standard varieties now in commerce. If you think your lot contains anything of special merit, you had better send a flower to a Carnation specialist for his opinion.

Lily of the Valley failing (*N. M. W.*).—We have before us as we write a superb gathering of the flowers of the above collected from a bed on a heavy and cold clay soil, and we have rarely seen finer sprays. The leaf you send, though quite healthy, does not represent good development, and this may be due to poor soil or to the overcrowded state of the bed. The Lily of the Valley delights in rich soil, plenty of moisture and ample room, and where a dry soil exists, or a subsoil that is much overdrained, special precautions should be taken if success is to be assured. Some of the finest home-grown Lilies of the Valley we have seen were in a Thames-side garden, where, frequently flooded in winter-time and planted as single crowns in rows, they gave very handsome spikes. This instance was the more instructive inasmuch as the originals of the batch were hard-forced as single crowns, and gave the above results two years later.

TREES AND SHRUBS.

Pruning a Wistaria (*G. B. P.*).—You may prune your Wistaria every year early in July. Cut the young shoots back to within three or four buds of the base, and if new shoots are formed later, prune them back about the end of August. By this means short, spurry growths are formed, from which an abundant supply of flowers are borne. If pruning is neglected, the plants become a perfect tangle of shoots and flowering suffers eventually.

Curious Laburnum growth (*G. E. D.*).—The growth of the Laburnum is extremely curious, and what caused it to start it is now impossible to say. The thin branch is about six years old, and some time ago something killed the upper part of this shoot, then a small bud, probably dormant before, grew out and, having a large supply of water, grew so quickly that it became very heavy and weighed down the original shoot, so that food found a difficulty in making its way past the point where the old shoot was bent. The result has been that the new shoot has developed very strongly and is about three times as thick as the branch which bears it, and has produced a growth somewhat similar to that often seen in the small shoots just above Pear fruits. At the same time, the newly formed branches have obeyed the impulse which most normal shoots have of growing away from the pull of gravity and are growing erect.

Information about Holly (*T. H. P. D.*).—1. The pistils of the Holly flowers you send are imperfectly developed, and therefore it is impossible for fruits to form. There may, of course, be some flowers in which the pistil is perfect. 2. The fluffy material sent with the numerous pinkish eggs scattered among it has been produced by a scale insect. You have done right in removing all you could discover, and it would be well to keep watch for any of the young ones in a few weeks. You will see them in all probability creeping along the leaves near the veins.

Oak galls (*Mrs. G. C. G.*).—The woolly or cotton gall of the Oak occurs usually, as in the present case, on the staminate catkins. The maker is the gall-wasp (Andricus ramuli), and like many other of the Oak galls, the fly that emerges from this is unlike that which laid the egg; that is, there are two dissimilar generations, the other generation being Aphilothrix autumnalis, which produces small, rather inconspicuous galls in the terminal buds of Oak in autumn. These are usually difficult to find, as the bud scales conceal them, while the present generation produces probably the most noticeable of all the Oak galls.

MISCELLANEOUS.

Names of plants.—*Conway.*—Viburnum macrocephalum (sterile form).——*T. P. C.*—Erythrina Cristagalli.——*E. A. A.*—The name of the specimen sent is Bryophyllum calycinum, originally a native of the East Indies, but now to be found in many tropical portions of the globe. The generic name of Bryophyllum is derived from "bryo," to sprout, and "phyllon," a leaf, owing to the singular manner in which young plants form on the edges of the leaves after they have been separated from the plant. We have heard it before now referred to as the Life Plant. It occasionally flowers under cultivation, but if the blooms develop in a shady structure they remain green or nearly so, whereas fully exposed to sun and air they are more or less suffused with red. We do not think that the flowers on your plant will now turn pink, but they might do so if the plant is stood in a sunny spot. This Bryophyllum was originally introduced into England as long ago as 1806.——*Miss M.*—Rose (wichuraiana) Réné André.——*William Seaton.*—The yellow Rose is the single yellow Austrian Briar, and the white Hybrid Noisette Mme. Alfred Carriere; the other is the Lungwort (Pulmonaria officinalis).——*A. R. D.*—The name of the specimen sent is Crassula coccinea, which used formerly to be known as Kalosanthes coccinea. It is not at all a difficult subject to propagate from cuttings, the present being a very suitable time for the purpose. The cuttings formed of this year's shoots should be of a length of 3 inches to 4 inches. They must be cut off cleanly with a sharp knife and have the bottom leaves removed for the purpose of insertion. A good plan is to put four or five cuttings, according to their size, around the side of a pot 4 inches in diameter, the pot being quite clean, well drained and filled with a compost made up of equal parts of loam, leaf-mould or peat and sand well mixed together. Into this the cuttings must be firmly dibbled and, when finished, given a good watering through a fine rose. After this they should be stood in the greenhouse, taking care that they are shaded from the sun, but, being of a partially succulent nature, they do not need to be put in a close propagating-case as many cuttings do. The after-treatment required is much the same as that for a Pelargonium; indeed, the Crassula and the original species of Pelargonium, whence the garden varieties have sprung, are natives of much the same district in South Africa.——*H. B. Potter.*—Saxifraga granulata.——*A. Sutton.*—Ficus macrophylla.——*A. Vigar.*—1, Paulownia imperialis; 2, Saxifraga trifurcata ceratophylla; 3, Anemone sylvestris.——*R. S.*—1, Malmaison Carnation Old Blush. The sport from it very closely resembles Princess of Wales. 2, Diervilla (Weigela) rosea; 3, Choisya ternata.——*F. Lurani.*—1, Dianthus squarrosus; 2, D. sylvestris (?); 3, D. monspessulanus; 4, Bromus asper; 5, Dianthus plumarius variety; 6, D. arenarius. The Dianthuses were much withered, and we cannot guarantee these names to be correct.——*Sandgrounder.*—1, Polygonum cuspidatum; 2, Tradescantia virginiana; 3, Saxifraga trifurcata; 4, Anchusa italica; 5 and 6, garden varieties of common Lilac; 7, Schizanthus pinnatus; 8, Pelargonium species; 9, Asparagus species (the last two specimens too scrappy to identify); 10, Sibthorpia europæa; 11, Zebrina pendula.

LEGAL POINT.

Master and servant: Notice (*Uncertain*). The well-established rule that a domestic servant hired indefinitely is entitled to a month's notice is not altered by the fact that wages are payable weekly or quarterly. The servant should give the same length of notice as he is entitled to receive. A gardener who lives in a house within his master's grounds is a domestic servant within the meaning of the rule above mentioned.—Barrister.

SOCIETIES.

YORK FLORAL FETE.

THE fifty-second annual floral fete held in connection with the Yorkshire Gala was held in Bootham Park, York, on the 15th, 16th and 17th inst. The exhibition created a record so far as number of entries was concerned, and, generally speaking, the quality was higher than usual. The Roses were, on the whole, rather thin, but fruits were exceptionally good. Specimen pot plants, too, for which this show is justly famed, were well up to the average. It is to be hoped that the committee will soon adopt a more up-to-date system of arranging the pot plant exhibits than that now in vogue, and which is confusing to judges, visitors and reporters alike.

COMPETITIVE CLASSES.

Pot Plants.

The premier class, for a group of miscellaneous pot plants, was, as usual, well contested, first prize being won by J. Pickersgill, Esq. (gardener, Mr. J. Donoghue). The Crotons here were very fine indeed, and the whole design was admirably conceived and carried out. W. A. Holmes, Esq., was a good second, the Crotons here also being the most notable feature. Third, fourth and fifth prizes went respectively to W. Vause, Esq., Messrs. R. Simpson and Sons and G. Cottam, Esq.

In a similar class for smaller groups competition was also good, first honours being well won by J. Blacker, Esq. (gardener, Mr. W. Curtis). Roses, Lilies and Crotons were all well shown in this admirable display. W. A. Holmes, Esq., was a very good second, Roses and Orchids being freely used, together with stove foliage plants. Third and fourth prizes were won respectively by J. Pickersgill, Esq., and W. Vause, Esq.

For nine stove and greenhouse plants first honours went to Messrs. J. Cypher and Sons, Cheltenham, their plants being particularly good. Ixora Williamsii and Pimelia diosmæfolia were very good. Mr. W. Vause of Leamington was second.

In a similar class for six plants Messrs. J. Cypher and Sons were again first, a good plant of Statice intermedia being shown here. Mr. W. Vause was the only other competitor and was awarded second prize.

For three plants Messrs. Cypher were again the champions with good examples of Anthurium scherzerianum, Erica ventricosa and E. Cavendishii. Mr. W. Vause was second.

For a single specimen stove plant Mr. W. Vause was first and Messrs. J. Cypher and Sons second, a well-grown Anthurium being shown in each case.

For a table of Orchids Messrs. J. Cypher and Sons were first with a very fine display of well-grown plants, Mr. W. Bolton, Wilderspool, Warrington, being second.

Messrs. Cypher were first for ten specimen Orchids in bloom; W. P. Burkinshaw, Esq., Hessle, East Yorks (gardener, Mr. J. T. Barker), second; William Bolton, Esq., third; and J. Lumley, Esq., fourth.

For six Orchids in bloom the first and second prizes were won respectively by Messrs. J. Cypher and Sons and W. P. Burkinshaw, Esq.

For a collection of pot plants and cut flowers there was a keen contest, first prize being well won by Mr. W. H. Ward, Scarcroft Nursery, York, who had Carnations, Roses, Schizanthus, Crotons and Ferns most tastefully displayed. Mr. J. Blacker, Selby, was a good second; Messrs. R. Simpson and Son, Selby, third; and Mr. W. Kettlewell, York, fourth.

The first prize for a group of Gloxinias in bloom was won by Mrs. Craven, The Mount, York (gardener, Mr. W. Walls), with large, well-flowered plants of a specially good strain. Second honours went to Captain Walker, Mill Mount House, York (gardener, Mr. H. Clark), third prize going to Mr. T. Winn, York.

The class for a group of Calceolarias was remarkably well contested, A. Teetham, Esq., Shelley, Holgate, York (gardener, Mr. C. F. Atkinson), being first with a splendid lot of plants.

The open class for eight Calceolarias was well filled, P. Stancliffe, Esq., Northallerton (gardener, Mr. G. Jarvis), being placed first for brilliant and well-grown plants. Second and third prizes were won respectively by the Rev. Canon Argles, York (gardener, Mr. W. Ettey), and G. H. Alkenhead, Esq., York.

T. Winn, Esq., 14, Ratcliffe Street, York, was first for a group of Begonias, the plants being remarkably well flowered and of robust constitution. The same competitor was first for eight tuberous Begonias, distinct; second, Mr. A. G. Alkenhouse; and third, Mrs. Ferrier, York.

For a group of show Pelargoniums there were three entries, Mr. J. R. Wedgwood, Burton Lane, York, being first with beautiful clean and well-flowered specimens. Mr. G. Lee, York, was second and Captain Walker third.

In the other Pelargonium classes the first prize-winners were as follows: Six show, Mr. G. Lee, York; six double-flowered, Mr. J. W. Clarke; twelve Zonal, Nosegay or hybrid Nosegay, Mr. H. Pybus, Monkton Moor, Leeds; similar classes for three and six respectively, Mr. H. Pybus; three double-flowered Ivy-leaf, Mr. J. R. Wedgwood, York.

First prize for a group of Fuchsias went to J. W. Clarke, Esq., York, for well-shaped specimens that were scarcely forward enough as regards flowering. G. Lee, Esq., was second.

For a single specimen Fuchsia, W. Kittlewell, Esq., Burton Lane, York; J. W. Clarke, Esq.; G. Lee, Esq.; and W. F. Crowther, Esq., won in the order named.

The class for a group of Carnations in pots brought forth five entries, J. Pickersgill, Esq., Weetwood, Leeds (gardener, Mr. J. Donoghue), being first, the plants shown being principally Malmaisons. The Duke of Newcastle was second, Malmaisons predominating in this group also. W. Langstaffe, Esq., Burton Lane, York, was third; and J. Rowntree, Esq., Clifton Lodge, York, fourth.

HARDY HERBACEOUS PLANTS.

For a group of hardy herbaceous and perennial plants and flowers, with a pool of water, there were four entries, Messrs. J. Backhouse and Sons winning first prize with a massive rock garden stocked with choice plants in season. Messrs. W. Artindale and Sons, Nether Green, Sheffield, were second, their exhibit also taking the form of a large rock bed, Roses being too freely used for this style of garden. Third prize went to Mr. S. Pickering, 31, Rosslyn Street, Clifton, York, whose exhibit was a fine example of natural effect, and reflected great credit on the exhibitor, who, we believe, has to grow his plants under considerable difficulty. G. Cottam, Esq., Alma Gardens, Cottingham, was fourth, the water garden being the principal feature.

Messrs. William Artindale and Sons won first prize in good competition for a collection of hardy cut flowers to be arranged in a stated space, the kinds staged including Pæonies, Lilies, Eremuri, Pyrethrums, Lupines, Irises, &c. Pæonia alba maxima was extra good. Second honours fell to Messrs. Harkness and Sons, Bedale, whose flowers were also shown in good condition and thoroughly representative kinds. Messrs. G. Gibson and Co., Bedale, were a good third, the Verbascums Caledonia and A. M. Burnie, both with fawn-coloured flowers, being very attractive and good, the Oriental Poppies also being very fine. Mr. G. Cottam was fourth.

For twenty-four bunches of hardy flowers Messrs. G. Gibson and Co. of Bedale were first with a superb lot of flowers, Pæonia officinalis flore-pleno, Lychnis Viscaria splendens plena, Papaver Mrs. Perry and Verbascum A. M. Burnie being extra good. Messrs. G. Longster and Sons, Malton, were second; Messrs. Harkness and Sons, Bedale, third; and Messrs. William Artindale and Sons fourth. In a similar class for twelve bunches the prizes were won by Mr. W. Hutchinson, Kirbymoorside; Mr. M. Furniss, South Milford; The Marquis of Northampton; and Mr. R. Dobson, Marton, in the order given.

The new class for Phloxes and Pentstemons brought two entries only, first prize being well won by John Forbes, Hawick, Limited, with remarkably good flowers

ROSES.

The large open class for seventy-two cut Roses in not fewer than thirty-six varieties was well contested, premier honours being secured by Mr. J. D. Hutchinson, Kirbymoorside, who staged a most praiseworthy collection. Mrs. S. Crawford, Maréchal Niel and Frau Karl Druschki were the three best. Second prize was awarded to Mrs. Mainwaring, Isle of Wight, whose flowers were rather small but well coloured. Among them we noticed good examples of Mme. Jules Gravereaux and White Maman Cochet. Third and fourth prizes were won respectively by Messrs. G. Mount and Sons, Limited, Canterbury, and Messrs. D. Prior and Sons of Colchester.

In a similar class for forty-eight blooms there were four entries, first honours being won by Messrs. D. Prior and Sons with really grand blooms. Lady Ashtown, Richmond and Duke of Edinburgh were the three best. Mr. G. Prince, Longworth, Berks, was a good second, his flowers comprising good examples of Caroline Testout and Mme. J. Gravereaux. Messrs. G. Mount and Sons were third and Messrs. W. and J. Brown, Peterborough, fourth.

The class for thirty-six blooms also brought forth four entries, the champions here being Messrs. W. and J. Brown. Hugh Watson, Mildred Grant and Captain Hayward were flowers that called for special mention in their exhibit. Messrs. G. Mount and Sons were placed second, their best bloom being a full one of M. J. de la Chaterignaye. Messrs. D. Prior and Sons and Mr. G. Prince were respectively third and fourth prize-winners.

For twenty-four blooms, distinct, Mr. G. Prince was the champion with a clean lot of flowers, Souvenir de Pierre Notting and Comtesse de Nadaillac being the two best flowers. Second honours went to Messrs. D. Prior and Sons, whose flowers were rather loose but well coloured, Lady Ashtown being in good form. Third prize went to Mrs. Mainwaring.

Five boxes were staged in the class for eighteen blooms, distinct, Mr. G. Prince again coming out top with blooms of good quality. Mrs. Mainwaring was second and Messrs. D. Prior and Sons third.

The class for a stand of twelve white and yellow Roses found four entries, but the effect was not good. Mr. G. Prince was first with superb flowers of Comtesse de Nadaillac, The Bride and Frau Karl Druschki. Messrs. G. Mount and Sons were second and Messrs. D. Prior and Sons third.

The amateurs' class for eighteen distinct blooms of Roses was well contested, Mr. W. Hutchinson, Kirbymoorside, being a good first with excellent flowers, Tom Wood and Mme. J. Gravereaux calling for special mention. Mr. G. W. Reader, Nubury Ferry, was second, Mrs. Mainwaring third and R. Park, Esq., Bedale, fourth.

In the amateurs' class for twelve blooms Mrs. Mainwaring was first out of six competitors with large but rather loose flowers. R. Park, Esq., was second, Mr. Dobson Martin third and Mr. G. W. Reader, Nubury Ferry, fourth.

For a collection of Roses in pots, grouped for effect, first prize went to Mr. J. E. Scaife, 60, Clarence Street, York, who put up a very fine exhibit of Rambler and other kinds. In a similar class, other foliage plants allowed, Mr. H. Pybus, Monkton Moor, Ripon, was first.

FRUITS AND VEGETABLES.

The class for a decorated table of fruit is one of the most important in the show, and four exhibits were staged. The Earl of Harrington (gardener, Mr. J. H. G... was first here, obtaining 114½ points out of a possi... His Cherries, Melons, Plums, Apples and Straw... were particularly good. The flowers were pri... Orchids, Asparagus and a little Selaginella being mingled. Second prize went to His Grace the D... Portland (gardener, Mr. J. Gibson), who secured 110 ... The arrangement here was not quite up to Mr. G... usual style, but the quality was excellent. The ... berries, Figs, Peaches, Nectarines and Melons were high quality and well finished. The Marquis of N... ampton (gardener, Mr. A. R. Searle) was third ... 97½ points, the arrangement and general effect being good indeed. Messrs. C. E. Simpson, Limited (gar... Mr. F. Nutbrown), was fourth with 87 points, a good ... being lost in the arrangement and general effect.

Four exhibits were staged in the class for a colle... of ten kinds of fruits, the Earl of Harrington being ... with a superb lot of well-finished specimens, the M... Figs, Apples, Plums and Cherries calling for special ... tion. The Duke of Newcastle (gardener, Mr. T. Ba... was a good second, the Peaches, Figs, Strawberries ... Cherries being the best here, Peach Royal George ... extra well finished. Baron de Forest (gardener, Mr. ... McPherson) was third.

Six competitors entered a similar class for six k... J. Brennand, Esq. (gardener, Mr. J. E. Hathaway), ... a good first. Peach Peregrine, Nectarine Early R... and a seedling Melon were in splendid condition ... Lord Savile, Rufford Abbey, Ollerton (gardener, M... Doe), was a good second, his Grapes and Nectarines ... well finished. Third prize was won by the Earl of Har... ton, Elvaston Castle, a very fine seedling Melon ... shown here.

For a collection of four kinds of fruit seven exh... were staged, Mrs. A. Wilson, Tranby Croft, Hull (gard... Mr. J. P. Leadbetter), winning first prize with su... examples of Grapes, Peaches and Nectarines. Se... prize went to J. Brennand, Esq., Baldersby Park, Th... the Melon and Peach Peregrine being the best di... The Earl of Harrington was third and the Marqu... Northampton, Castle Ashby (gardener, Mr. A. R. Sea... fourth.

For two bunches of Black Hamburgh Grapes com... tion was very keen indeed, the prizes being won re... tively by Lady Hawke, Wighill Park, Tadcaster (gard... Mr. H. T. Bray); the Duke of Newcastle, Clum... Worksop (gardener, Mr. S. Barker); and Lady Beaum... Carlton Towers, York (gardener, Mr. W. Nicholls).

For two bunches of any variety of white Grapes ... petition was also good, W. C. Cliff, Esq., Meanwood Tow... Leeds (gardener, Mr. W. H. Hague), being first with ... finished bunches of Buckland Sweetwater. Lady B... mont was second and His Grace the Duke of Port... third.

No fewer than twelve dishes were staged in the class... six Peaches, J. Brennand, Esq., winning the first p... with a superb dish of Royal George. Lord Belper, King... Hall, Derby (gardener, Mr. W. H. Cooke), was sec... with well-finished examples of Hale's Early, Messrs. ... Rivers and Sons third with Crimson Galande, and Col... Harrison-Broadley, Melton House, East Yorks (garde... Mr. C. Lawton), fourth.

In a similar class for Nectarines eleven dishes ... staged, the Earl of Derby, Knowsley, Prescot (garde... Mr. E. F. Hazelton), being first with very highly colou... fruits of Lord Napier. Lord Belper was second ... Early Rivers and Lord St. Oswald fourth. The t... prize-winner cannot be given, as he had forgotten to le... his entry number on the exhibit.

The classes for single Melons were well contested, ... first prize-winners being as follows: Scarlet-fleshed, A... Lawson, Esq., Aldborough Manor, Boroughbridge (garde... Mr. A. Nicholson), with Sutton's Scarlet; green-flesh... the same exhibitor with Emerald Green; and wh... fleshed, Lord Belper with Eminence.

For six Figs the Marquis of Northampton, Castle Ash... (gardener, Mr. A. R. Searle), was first; for Cherr... Messrs. T. Rivers and Sons, Sawbridgeworth, with ... black-fruited Early Rivers; for Strawberries, F. Samuels... Esq., Breckenborough Hall, Thirsk (gardener, Mr. G. ... Brotherston), with superb examples of Royal Sovereig...

The prizes offered by Messrs. Sutton and Sons, Readi... for collections of vegetables grown from their seeds w... won respectively by His Grace the Duke of Portla... (gardener, Mr. J. Gibson), the Marquis of Northampt... (gardener, Mr. A. R. Searle) and Lady Beaumont (garden... Mr. W. Nicholls).

In a similar class, in which the prizes were offered ... Messrs. E. Webb and Sons, Stourbridge, the prizes w... won in the following order by the Marquis of Northampt... W. D. Cliff, Esq., Meanwood Towers, Leeds (garden... Mr. W. H. Hague), and Lady Beaumont.

For a dish of twelve Tomatoes competition was ve... strong indeed, His Grace the Duke of Portland being fi... with Princess of Wales. F. Samuelson, Esq., Thir... was second with Brotherston's A1, the Marquis of Nort... ampton third and the Duke of Newcastle fourth.

NEW PLANTS.

Sweet Pea Orange Paradise.—This is practically a vi... orange self, with fairly large, waved flowers and ... habit. Shown by Miss Hemus, Upton-on-Severn. Fir... class certificate.

Carnation Lady C. Waring.—A cream, striped rose pi... variety of the Perpetual section, sweetly scented, ... calyx and long stem. Shown by Messrs. W. Cutb... and Sons, Highgate, N. First-class certificate.

Iris Duchess Sarah.—One of the germanica set, wi... beautiful clear blue flowers, the crest of which is ... and dull slate brown at the base. Shown by Mr. ... Yeld, York. Certificate of merit.

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No. 2015.—Vol. LXXIV

July 2, 1910.

CONTENTS.

E Beautiful ants in Flower w 321
s of the Week rthcoming events 322
espondence owering trees and hrubs in suburban gardens .. 322
stroying field-nice 322
se Antoine Rivoire 323
ening of the Week r the South and South Midlands.. 323
r the North and North Midlands.. 323
t Garden esummer ailments f the Grape Vine 324
ers among the wers 324
s and Shrubs e destruction of Pines 325
good Tree Pæony 325
binia Kelseyi .. 325
little - known Honeysuckle .. 325
Flower Garden Summer - flowering Saxifragas 325
Sweet Pea chat .. 326
Coloured Plate Four good Sweet Peas 327
The Rosette Mullein.. 327
Rose Garden Rose Arthur R. Goodwin 327
A deserted garden.. 327
Gardening for Beginners Garden work week by week 328
Thinning seedling Onions 328
Thinning seedling Turnips 329
How to propagate Pinks 329
The Town Garden.. 329
Editor's Table 330
New plants.. 330
Answers to Correspondents Flower garden .. 330
Trees and shrubs .. 331
The greenhouse .. 331
Miscellaneous .. 332

ILLUSTRATIONS.

ir William Paul 324
ee Pæony at Ashby Parva Rectory 325
ummer-flowering Saxifraga cochlearis 326
good Sweet Peas .. .. Coloured plate
Rosette Mullein at Melksham House, Wilts .. 327
ning out Onions and Turnips 328, 329

EDITORIAL NOTICES.

ery department of horticulture is represented in The EN, *and the Editor invites readers to send in questions ng to matters upon which they wish advice from com- authorities. With that object he wishes to make Answers to Correspondents" columns a conspicuous e, and, when queries are printed, he hopes readers kindly give enquirers the benefit of their assistance. ommunications must be written clearly on one side of the paper, and addressed to the* Editor *of* The EN, *accompanied by name and address of the sender.*

e Editor welcomes photographs, articles and notes, e will not be responsible for their safe return. All nable care, however, will be taken, and where stamps nclosed, he will endeavour to return non-accepted butions.

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SOME BEAUTIFUL PLANTS IN FLOWER NOW.

With Special Reference to those that Flourish by Lake, Pond and Stream-side.

A FEW days ago the writer spent several hours in the interesting nursery garden of Messrs. Wallace and Co. of Colchester. It was the flowering-time of many plants, and among those that gave the greatest beauty were the

Irises.—June and July are the months for the Iris, although many species and varieties flower in spring and are recommended for the unheated house. At this season of the year the Spanish and English forms are in bloom and a host of kinds that love the water-side or a moist soil. The most beautiful of these is, of course, the Japanese Iris (I. lævigata, or Kæmpferi as it is also called), and a species that belongs to this section is one of the most interesting features at Colchester. It is called I. albopurpureum colchesterense, and when shown recently before the Royal Horticultural Society was unanimously given an award of merit. A large group was in flower by the edge of the water, and presented a rare picture of exquisite colouring. At once we are reminded of the Japanese Iris, but there is a decided individuality in this remarkable flower. The growth is, fortunately, extremely vigorous, the leaves tall, straight and soft green, and the flowers charming in colour and in form. The standards—that is, the upright segments—are lavender, and the falls broad and intense blue, relieved by a white line from the apex to the centre. There is a wonderful colour contrast in the flower, and, as the plant is of great vigour, it is to be hoped it will soon be seen in all good gardens.

Iris Kæmpferi.—A field of several acres of this Iris is a cloud of variegated colouring. It is surrounded with trees, which throw into intense relief the many shades from ivory white to intense purple, with a wealth of intermediate colour beauty. This flower-burdened field is not by water, and the soil is not even moist; but the plants flourish, caring little apparently where they are, by a lake or on a sunny hilltop. This mass of Iris teaches the lesson that in quantity the richest effect is gained; not that one would plant in the garden so thickly as in this instance, but the flower shows forth its richest beauty when in free groups.

Other Irises.—It is impossible in the space of these brief notes to even mention all the Irises that beautify the Kilnfield Gardens, but the following have been selected as of unusual interest. The Spanish and English sections—bulbous—are represented by every kind worthy of a place in our borders, and the Michael Foster hybrid Irises are a study in themselves. As Iris-lovers are aware, the great hobby of the late Sir Michael Foster was the hybridising of the Iris, and one in particular seems apart from the others—Shelford Giant, the result of crossing I. gigantea and I. aurea. It is a noble plant, about 6 feet high, and bears huge flowers of soft yellow, varied with a yellow blotch on the falls. No finer Iris exists for the water-side or wherever a stately group is desired than this. I. cypriana Caterina is a lovely study in lavender, and another gem from Shelford; and a flower of a similar shade, a form of the well-known I. spuria, is spuria lilacina, which has, apart from its exquisite shade, the attribute of bounding vigour. Monaurea is not a Foster hybrid, but it must be mentioned among the taller Irises; the name is derived from the parentage of the flower—aurea crossed with Monnieri. Few Irises are nobler for water-side, and its strong yellow colouring may be seen from a distance.

Ixias.—It is a mystery why certain plants are almost ignored, notwithstanding the beauty of their flowers. The Ixias occurred to mind when seeing them at Colchester in the full flush of their early summer beauty. The impression that the bulbs are not hardy may partially account for their rarity, but the Ixia when given a sunny place and light soil flowers with surprising freedom, one precaution being to cover the places where they are during severe weather with a surface of decayed leaves. Both in the garden and in pots for the greenhouse and conservatory the Ixia is invaluable. There are several named kinds, but the mixtures are very beautiful.

Hybrid Heucheras.—One reason, we think, of the neglect of the Heuchera is the uncertain flowering of H. sanguinea; but those who have been disappointed with this beautiful species should grow the hybrids. The plants are the essence of grace and misty beauty, and the groups in bloom at Colchester are one little sea of colouring, bewildering almost in its infinite variety of soft-shaded flowers, set thickly on somewhat tall, slender stems that move gently in the summer wind.

Not only is this colouring exquisite in itself, but the graceful stems are invaluable for cutting. The hybrid Heuchera increases rapidly, and is one of the flowers that should be in the reserve garden—that is, a place to which one may go to fill the basket for the home.

Aster subcæruleus.—This is a perennial Aster that every amateur should grow. It is one of the most conspicuous flowers in the garden for many weeks of the year, growing strongly, and almost hidden with large Daisy-like blooms soft blue in colour, which is thrown into rich relief by a golden centre. When gathered and loosely bunched in a bowl, the light seems to shine through the exquisitely tinted petals, and its strength of growth and freedom of flowering over a long season are invaluable attributes.

The Eremuri.—Mr. Wallace's nurseries are well worthy of a visit for the Eremuri alone, which are, however, fast losing their beauty for the present year. It is commonly supposed that this group of plants is difficult to grow and tender, but this is a libel on one of the noblest perennials that adorns the garden. As pointed out by the grower, Eremuri "may be planted out to withstand any weather, and when established will send up noble spikes 6 feet to 10 feet high, with a terminal flower-spike 2 feet to 2½ feet long, bearing hundreds of flowers; the flower-spikes appearing early, it is best then to give them slight protection for fear of spring frosts." Eremuri are seen to the greatest advantage when planted among shrubs, the growth of these protecting the young foliage and developing spike in spring, and, apart from the species that are more or less familiar, several raised by the late Sir Michael Foster are of great interest and beauty, possessing strength of growth and a delightful series of soft yellow shades in the flowers. E. Bungei, Warei, St. Michael and Shelford are forms that have distinguishing traits. Shelford is a lovely hybrid, bearing a spike of flowers between 7 feet and 8 feet high and bronzy yellow in colour; but the highest praise may be given to all the hybrids. A collection of Eremuri is, of course, woefully incomplete without elwesianus, robustus, himalaicus and Olgæ.

A Beautiful Thyme.—In one part the soil is covered—a dense carpet—with the flowers of the Thyme called Thymus serpyllum coccineum, not a leaf visible above this wonderful blood red covering. Scent and colour are associated, and a carpet is formed that would throw into rich contrast any plants associated with it—white Spanish Iris or with dwarf shrubs in the background. It is with some of the simpler flowers, if one may so express it, that the greatest beauty is derived.

It is impossible to mention all the beautiful plants that are in flower at Colchester. There are the Nymphæas, Tritomas and a host of moisture-loving plants; while the collection of dwarf shrubs for the rock garden is one of the most complete in the country.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 5.—Royal Horticultural Society's Summer Show at Holland House, Kensington (two days).

July 7.—National Rose Society's Metropolitan Exhibition, Royal Botanic Gardens, Regent's Park.

July 12.—Wolverhampton Floral Fete (three days).

July 12.—National Sweet Pea Society's Show (two days).

Messrs. Kelway and Son's exhibit at the York Gala show.—The beautiful display of cut flowers—including Pæonies, Delphiniums, Sweet Peas and other kinds—was awarded a silver-gilt medal, not a silver medal.

The Gardeners' Royal Benevolent Institution.—The annual dinner held on June 22 and reported on another page was, as usual, thoroughly well supported, and the chair was taken by the Hon. Harry Lawson, M.P. The sum subscribed amounted to £1,900.

The Agricultural Show at Liverpool.—Increased interest in horticultural exhibits.—As the report given on another page shows, the horticultural exhibition in connection with the Royal Agricultural Show was a great success; it was a beautiful display.

Holyrood Palace Gardens, Edinburgh. His Majesty the King has ordered that the Royal Gardens at Holyrood Palace, Edinburgh, be opened for the season to the public, and in accordance with the order they were opened on Monday, June 13. They will continue open until the end of September, and the day on which admission can be obtained is Monday, between the hours of two and five o'clock. The entrance will be by the Palace entrance, through the quadrangle and chapel. The gardens are under the charge of Mr. W. Smith, who was for a considerable time in the Edinburgh Royal Botanic Gardens, and who, since his appointment to Holyrood, has done good work, so that they will be found attractive to those interested in gardening.

Committee on agricultural science.—The President of the Board of Agriculture and Fisheries has appointed a Committee to advise the Board on all scientific questions bearing directly on the improvement of agriculture, and especially as to the methods to be adopted (*a*) for promoting agricultural research in universities and other scientific schools; (*b*) for aiding scientific workers engaged in the study of agricultural problems; and (*c*) for ensuring that new scientific discoveries are utilised for the benefit of agriculturists. The Committee will consist of His Grace the Duke of Devonshire, P.C.; the Right Hon. Lord Reay, G.C.S.I., G.C.I.E.; Sir Edward Thorpe, C.B., F.R.S.; Mr. David Davies, M.P.; Dr. J. J. Dobbie, F.R.S. (Principal of the Government Laboratories); Professor J. B. Farmer, F.R.S.; Dr. S. F. Harmer, F.R.S. (Keeper of Zoology at the Natural History Museum); Dr. R. Stewart MacDougall, M.A. (Technical Adviser in Zoology to the Board of Agriculture and Fisheries); Mr. T. H. Middleton, M.A., M.Sc.; Mr. P. Spencer Pickering, F.R.S.; Lieutenant-Colonel David Prain, C.I.E., F.R.S. (Director of the Royal Botanic Gardens, Kew); Mr. H. S. Staveley-Hill, M.P.; Mr. Stewart Stockman, M.R.C.V.S.; Dr. J. J. H. Teall, F.R.S.; and Dr. David Wilson, M.A. Mr. Middleton will act as chairman of the Committee, and one of the officers of the Intelligence Division of the Board will act as secretary.

"Four centuries of French gardens." This is the title of the special spring number of our French contemporary, *La Vie a la Camp* edited by M. Albert Maumené. The seri historical articles relating to French gard all styles during the period mentioned are by MM. Maumené, A. Duchene and Geo. Gi the erudite Librarian of the National Horticul Society of France. The illustrations, whic numerous, include portraits of celebrities Claude Mollet downwards, views and plans o gardens, parterres, &c., together with several page illustrations of the Chateau de S Versailles, and Chantilly. The number is enc in a coloured wrapper representing a view i gardens of Versailles by M. R. Charmaison.

CORRESPONDENCE.

(*The Editor in not responsible for the opin expressed by correspondents.*)

Flowering trees and shrubs in sub ban gardens.—The continued advocacy portion of the gardening Press was respons some years ago for the uprooting of old ro evergreens and the largely increased planting flowering trees and shrubs, not only in ou ing places, but in the grounds of subur residences, and the result is to be seen e returning spring and early summer in the skirts of many of our towns. Judicious af treatment follows as a rule, for although comes across cases of mutilation, they are no frequent as in former years; there is more evide of knowledge of the subject and, consequen careful pruning where this is necessary. It i be hoped that the liberal use of tar along m by-thoroughfares will not be responsible crippling foliage that is close to the road: poss the absence of motor traffic along such roads keep the dust in its proper place. I have b pleased to notice that this increased plantin not only in numerical strength, but in car selection of most suitable plants for diffe situations in their immediate association, and with the view to have flower in some way as l as possible. Very nice plants, for instance, Daphne blagayana and Magnolia stellata w often to be seen, and Forsythia suspensa strongly in evidence on walls, as a screen trellis-work, on arches and in the open grou In the latter direction I was glad to see sev of the Cydonias that had evidently recei careful attention and were flowering well. would serve no useful purpose to enumerate the different things that have helped to brigh the garden from early spring until the pres time. All the Prunus and Broom families h flowered remarkably well, and at the time writing the scarlet Thorns, Guelder Roses some of the Mock Oranges are at their best. many of the newer forms of Lilac seem as ye have found their way into suburban gardens, a taking the old sort, vulgaris, and v. albus as a wh they are less satisfactory than the majority shrubs. It seems that cultivators hesitated cutting back long, straggling shoots, with the re that they have run up thin and spindling and flo is produced but sparsely, and that, as a rule, at top of the bushes.—A. G. B.

Destroying field-mice.—Being a const reader of your valuable paper, I noticed in y issue of May 21 that E. M. Greenly is troub with field-mice and wishes to destroy them. Hav been a grower all my life, I well know how destr tive field and other mice are. I have known many as nine mice to be trapped in one night the side of Pea rows by the following method, trust that others may also reap the benefit of

erience. Take one or two good-sized pickle ne) jars which have good shoulders, smear ty of lard inside underneath the shoulder, k a few small pieces of roasted cheese in the and about half fill the jars with water. Then the jars in the earth, leaving a good inch above ground level. The roasted cheese seems to n attraction, and they climb up on to the edge he jar, and in trying to reach it underneath the ilder fall into the water and are drowned.—B. HARRIS.

Rose Antoine Rivoire.—I was very pleased ee an appreciation of this Rose in the National e Society's Annual for this year. In my humble nion many fine sights are missed by this Rose ing been included in the list of exhibition Roses, thus excluded from the decorative section. s true that one can occasionally get a bloom n it good enough for the exhibition board; but ing grown this Rose for the past twelve years, ave come to the conclusion that its true merits to be found in the profusion of beautiful blooms duced both early and late in the year by trees hich the knife has not been applied too severely. veteran Antoine, a dwarf, is now between lve and thirteen years of age. It grew to a ght of 7 feet and measured 6 inches in circumnce at the base, and until it began to decline e years ago was well grown and not leggy to extent one might expect in a tree of that age. ce the winter before last, when the thermometer below zero here, I have had to cut the tree down within 3 feet of the ground. Still, like the Latin der in "Cæsar"—nothing deterred by the wound y old Antoine has made good wood again, and ow blooming well, greatly to my pleasure, for se him would be a sad parting, as he was my father in the exhibition world. I put him in decorative class at a local show without at the e knowing his true name and with his identity ntentionally concealed under the sobriquet Bouquet d'Or, which he had been christened one of the leading firms of Rose-growers (to m I sent some of the blooms shortly after they appeared). I succeeded in winning a first. s was my commencement of growing exhibition es in earnest, with good results; and there can be no mistake as to the identity of my Antoine, ng that one large firm of nurserymen took their k of that Rose from my tree. Would that I ld get another Antoine to grow like this one! ave budded it on the Briar cutting with only rable success. Now, however, I intend to some buds on the Briar seedling. Perhaps e members of the council of the National Rose ety will feel disposed to assist in advocating claims of dear old Antoine to be placed in the tion to appear in the decorative section in due se, as he seems to have a right to be there, al, at least, to Killarney. If I may conclude by essing, I should like to remark that, although e tell us that Hugh Dickson is a late Rose, it been my misfortune to find him very early . He has been blooming since June 14, notstanding that from all my trees I pinched off earliest buds. I have tried in vain for three s to keep him back on the Briar cutting. It be that I do not cut this Rose hard enough. practice has been to leave it 2 feet to 3 feet and o sticks. Now I am trying him as a standard he hope that the blooms may come later, and appearances I think they may save about n days, not more. The answer, presumably, imate and soil; but if any of your ingenious espondents can afford me advice with a view etarding Hugh Dickson and making him as a friend to me at exhibition-time as he is ther ways, I shall feel really grateful.—R. D., *Hampton.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

SUMMER BEDDING.—The plants are becoming accustomed to their fresh quarters and beginning to look gay. All decayed foliage should be picked off, and an occasional hoeing is beneficial. Phlox, Verbenas and all plants of similar growth which are used for edging or carpeting must be kept pegged down.

Wallflowers.—As soon as the seedlings are large enough to handle, prick them out into nursery beds at a distance of 4 inches to 6 inches apart. When they have grown together again they may be planted out in the open ground, to remain till required for the flower-beds in autumn. Transplanting twice means a little extra work, but by following this plan more fibrous roots are obtained and there is quicker rooting in the final planting.

Violets.—Plants of these which are being grown for frames to produce flowers during the winter will require attention in regard to keeping all shoots and runners picked off. The soil between the plants should be frequently stirred with the hoe. The same advice applies to those which are to remain where they have been planted.

PLANTS UNDER GLASS.

Malmaison Carnations.—Layering may be begun as soon as the flowers are over. The usual way is to root the layers in frames. About 9 inches of good soil should be put in a frame and the plants turned out of the pots and planted in it. The easiest plan is to layer as the plants are put in. When the work is completed, a good watering should be given and the frame kept close and shaded. As soon as roots appear, shading may be gradually dispensed with and air admitted. A few days after this take off the lights. It is advisable to sever the layers from the old plant a few days before lifting for potting.

Calceolarias and Cinerarias.—When these become large enough to handle, prick them off into boxes or pans. The smallest plants must not be despised, for it often happens that they turn out to be the finest varieties.

KITCHEN GARDEN.

Peas.—A sowing of one of the approved early varieties may be made to produce a few late dishes.

Celery.—All Celery should by this time be in the trenches. Plenty of water must be given if the weather is dry, and liquid manure occasionally. The earliest-planted batch may have a small quantity of soil put round the plants, taking care that they are well watered beforehand.

Autumn-sown Onions.—Bend over the tops to assist in the swelling of the bulbs.

Dwarf Beans.—If a sowing is made now on a warm border a few late dishes may be procured, especially if they are grown in a position where a frame or frames can be placed over them late in the season.

FLOWERING SHRUBS.

Rhododendrons and Azaleas.—As soon as these have finished flowering, all seed-pods should be carefully picked off. The old truss can be easily snapped off just above the new growths. In doing this one has to be careful not to damage the young shoots. When this is completed, the plants should be liberally top-dressed.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

LATE CHRYSANTHEMUMS.

STAKING.—It is not always possible to stake the plants at potting-time, as there is so much other work about at that season, and if a single short stake is given to each plant to prevent it from being snapped off by the wind, it is about as much as one can usually afford to do for them. Now, however, permanent stakes of suitable length for each variety must be placed in each pot. As a general rule it is best to allow a stake for each shoot, that is, of course, for single-stemmed plants. Stout Bamboo canes are very suitable, and have the great advantage of being easily lengthened by having thinner ones stuck into the tops if this is considered necessary. Some growers dislike these canes because the hollow points provide shelter for earwigs, but this can easily be prevented by pressing a small piece of soft putty into the holes.

Tying.—Never make the ties at all tight, or many broken points will result. Growth is now very rapid, and if the ties are placed just above a leaf, trouble is sure to follow, especially if at all tight. All ties, therefore, should be placed just under a leaf, and if left quite loose nothing is likely to happen to the shoot. Always, when attending to the tying of the points, see that the former ties are all right, and rub out all side shoots as the work proceeds. Suckers and dead leaves should also be removed as they appear. Regular watering is of very great importance, as the Chrysanthemum quickly resents both drought and over-watering. Unless potted very early, no stimulants of any kind should be necessary yet.

FRUIT GARDEN.

Thinning.—As this is a very late season, it is only now that the thinning of fruits on walls can be done. It always pays to spend a little time over this work, as a smaller number of fine fruits is always preferred to mere quantity. Unfortunately, some kinds seem to have set very poorly, and the thinning of these will be a simple matter. Peaches and Apricots in this district are, so far as my observation goes, a total failure. Plums seem fair and will demand a certain amount of thinning. Pears also show a fairly good crop, and a reduction of the number will in many cases be an advantage. Apples on walls have set well. Cherries are a good set, and all the smaller fruits should be picked off now if not already done. It is easy to thin Gooseberries, where it is necessary, as the surplus always comes in handy in the kitchen. If, instead of clearing a bush of its entire crop, all the bushes that are heavily laden are gone over and a number removed, the remainder will swell to a larger size and be of finer flavour. This advice may be too late for the earlier districts; but so late is the season in the higher localities that it will be quite seasonable.

KITCHEN GARDEN.

Peas.—This is a vegetable that must be well watered should rain keep off for any length of time. Dryness at the root shortens the season, while the flavour is also spoiled. If the ground is at all poor, an occasional drenching with liquid manure will work wonders.

Celery.—A little earth should be scattered among the Celery plants, as it is only after this slight "earthing" is given that the plants begin to grow well. If the weather is dry, give a good soaking of water the evening before. A slight dusting of soot among the plants is also excellent for them and helps to discourage vermin.

C. BLAIR.
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THE FRUIT GARDEN.

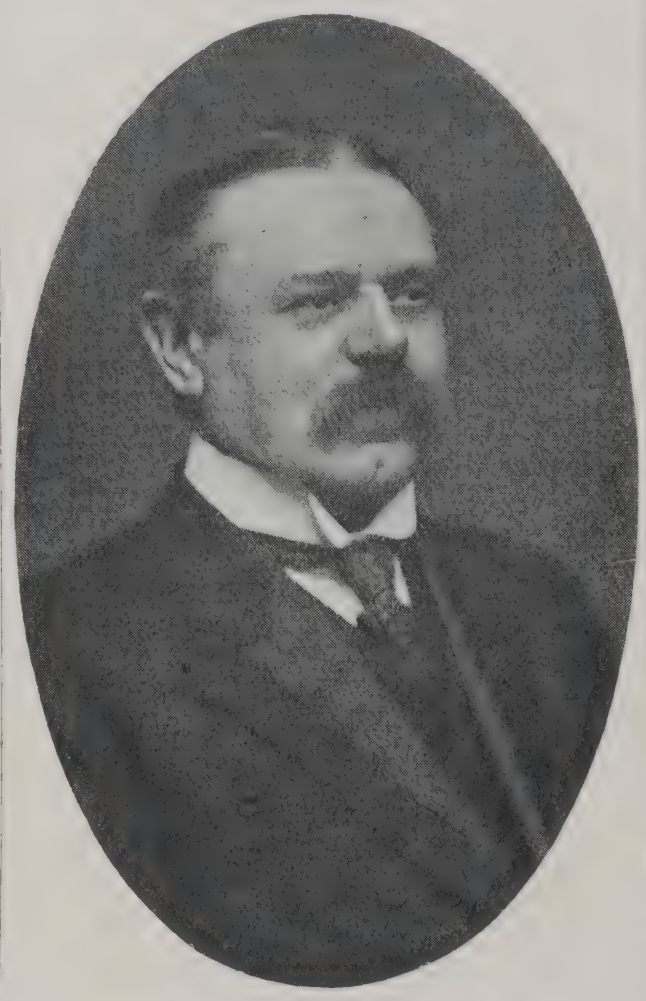
THE SUMMER AILMENTS OF THE GRAPE VINE.

(*Continued from page* 298.)

RUST.—It is seldom that this ailment affects the Vine, excepting when growth is young and tender, when the berries are being thinned being the most susceptible period. It takes the form of a thin film of rust of a dirty brown colour, which fastens on the berries and renders them useless, as it cannot be effaced. Damage from this ailment is less common now than it used to be some thirty or more years ago. Opinions vary as to the cause or causes which produce it, but all agree that its presence is due to adverse atmospheric influences. It was at one time thought that it was caused by touching the berries with the hand at thinning-time or by the head rubbing against the berries. My experience does not support this theory. Others say that the injudicious admission of currents of cold air into the vinery early in spring, when growth is young and tender, is responsible for its presence, and I think there is much to be said in favour of this contention. One reason that the malady is not now so common is that growers in these days are more careful than they used to be not to open the front ventilators of their vineries too early in spring. Another is that many vineries in the sixties and seventies were heated by flues, and there is no doubt that rust often resulted from the fumes of hot air which occasionally escaped from these flues. This source of danger has now practically disappeared; but there is another danger still remaining which perhaps is the most potent of all in causing rust on Grapes, namely, the sulphur fumes from overheated hot-water pipes, applied, as sometimes is the case, for the destruction of red spider or mildew when the foliage and fruit are too young and tender. Later, when growth is more advanced and comparatively well developed and ripened, no harm will follow when the Vines are subjected to this treatment.

Mildew.—This is a more insidious, common and destructive enemy. Its attack is more frequent in spring and autumn than at any other time, and if its ravages are not checked early there is danger of the whole crop in the vinery being practically ruined by it. The cause of an attack of this malady in spring is chiefly due, I think, as in the case of rust, to opening the front ventilators too early in the season, admitting cold currents or draughts of air which, although the sun may be warm at the time, are much cooler than the atmosphere of the vinery, thus causing a chill to the young Vine growth and opening the door, as it were, to an attack of this disease. As stated before, the autumn also is a time when danger may be apprehended from mildew, when days are shortening and the nights becoming damp and cold. Late varieties of Grapes are more susceptible to attack than are midseason varieties. The best way I have found of preventing an attack in the autumn is by the timely application of slight heat to the hot-water pipes, both day and night, in order to expel the dampness and rawness from the air of the vinery and to secure a more free and buoyant circulation. To destroy mildew I have found no remedy so effective as flowers of sulphur freely dredged over the parts affected, whether foliage or fruit, slightly moistening the parts before applying, so that the sulphur will stick.

Shanking.—This is an old and common disease of the Vine when grown under artificial conditions, as in glass houses. It has puzzled generations of gardeners, and as far as I know investigations have been without any absolutely exact result. In my opinion it is not due to any one particular cause, but to a combination of causes, all tending to reduce the strength and vitality of the Vine, ultimately ending in an attack of shanking. The most fertile cause I believe to be overcropping for a series of years, this causing degeneration of the quality and condition of the roots, defective drainage, and a constant sodden condition of the border. The too free use of powerful stimulating manures has not infrequently, in my opinion, been the cause. Indeed, anything which conduces to the deterioration of the health of the Vine is a contributing cause. There are many others which I need not specify. The only way of bringing Vines back to sound health when suffering from this disease is to lift the roots to within 2 feet or 3 feet of the stem, and replant in the best new Vine soil procurable, in order that a new crop of healthy roots may thereby be created, and to crop lightly for a season or two afterwards.



ARTHUR WILLIAM PAUL.

Scalding.—The term scalding is derived from the parboiled appearance of the berries when attacked by this disease. Singularly enough, this ailment confines its depredations to two varieties of Grapes chiefly—Lady Downe's Seedling and Muscat of Alexandria, but occasionally affects others. Sometimes it causes much destruction in vineries, the whole crop being often more or less destroyed by its ravages. Its attack usually takes place when the Grapes are the size of Horse Beans and while seed formation is taking place. It is now generally admitted that the cause of scalding is due to the action of hot rays of sunshine striking the Vines in the morning when insufficiently ventilated or not ventilated at all, and while the Vines are more or less saturated with the condensed moisture of the night. The remedy lies in doing away with this condensed moisture. This is easily effected by leaving a chink of air on the front and back ventilators all night, sufficient to admit of a current of air constantly passing through, and to have a little heat in the hot-water pipes, which greatly helps the buoyancy of the atmosphere and the free circulation of air.

Splitting.—This ailment is also chiefly co to two varieties, namely, Madresfield Cour Lady Downe's. The cause of this trouble, is atmospheric, and the secret of protecting Grapes from attack lies in ventilating freely d the day and not closing the back or front lators at any time during the night at the when the Grapes are most liable to injury this cause, namely, after the stoning is pleted, when the second swelling takes plac while colouring is going on.

OWEN THOMAS, V.M.

WORKERS AMONG TH FLOWERS.

ARTHUR WILLIAM PAUL.

RAISER OF MANY BEAUTIFUL ROSES.

ONE great impression is created in minds of those who have mixe horticultural circles, and that is intense love, apart from commer instincts, that fills the heart of horticulturist whose fancy le towards the cultivation and improvement o particular flower or flowers in general. The cu vation of flowers for sale is, of course, busine but the grower is imbued with a love for ho culture, his whole being filled with an inte enthusiasm. We have from time to time had privilege of recording the work of many fam horticulturists, and it is with more than ordin pleasure we are able to give a portrait of one of most accomplished of men, Mr. Arthur Paul, un whose control are the famous nurseries of Mes William Paul and Son of Waltham Cross. The wri has spent many happy days in those flower tree covered acres, especially in the time of Rose seedlings and when the newer hybrids are the full flush of their summer beauty.

Mr. A. W. Paul of Waltham House, Walth Cross, is the son of the late Mr. W. Paul, one the most famous men of his time, with whom was associated in business for more than thi years During the period of great horticultu activity and development in this coun covered by Mr. A. W. Paul's career, Waltham Cross Nurseries have always held prominent position for their large and splendi grown collections of hardy trees and flowers, fr trees, Rhododendrons and Camellias; but th are perhaps best known in connection with Ro with which flower the late Mr. William Paul so closely identified for many years, the first edit of his exhaustive work, "The Rose Garden," hav appeared in 1848.

From the first days of his entry into the ho cultural arena Mr. Arthur Paul has taken an act interest in everything pertaining to Roses, and was instrumental some years ago in introduc to English gardens the beautiful decorative va ties raised on the French Riviera—G. Nabonna Papa Gontier, General Schablikine and others series which has been richly supplemented fr Waltham Cross by such varieties as Coralli Sulphurea, Queen Mab and Hugo Roller. He largely assisted in making known the valua autumn-blooming characteristics of many kinds Roses, in exhibiting which his firm were the pione some twelve or fifteen years ago; while m recently they were the first to grow and exhi the rambling varieties of Roses in pots, which now so popular. Some of our readers may remember Messrs. William Paul and Son's group of these, consisting of the variety Leuc stern, which created so much sensation at Temple Flower Show a few years ago.

r. A. W. Paul has always been keenly alive to scientific hybridising and cross-breeding of es, on which subject he contributed a paper he International Conference on Genetics in , and his successful practice in this direction idenced in the series of distinct and exquisite s that have emanated from Waltham Cross te years, of which Earl of Warwick, Warrior, garet, Cynthia, Juliet, Dr. Wm. Gordon, d R. Williamson, Mrs. Isabelle Milner, Fairy, , Refulgence and others may be mentioned. a long series of years Mr. A. W. Paul assisted as a judge at the most important bitions of Roses on the Continent, including present series of trials of new Roses in the nds of Bagatelle, Paris, and as a result of the vledge thus acquired, combined with his cordial ions with all the Continental rs of repute, the Waltham s Nurseries have become a e for new Roses of merit from arts of the globe, where the ng of the newcomers and iplication of varieties of merit scientifically and successfully ed out.

may be mentioned that one r. A. W. Paul's hobbies is the cting of books on horticulture, old and new, and the library altham House contains many esting and scarce works, espe- on Roses and fruits.

REES & SHRUBS

E DESTRUCTION OF PINES.

SEND herewith specimens of an insect which is devouring great numbers of young tree Pines in a twelve-acre plantation. Can you tell me what it is and in what way stop the mischief?—B.

he beetle devouring the young s is one of the Pine weevils, bius abietis. The beetles k many different kinds of ers, biting away pieces from trees all along the growth, times completely barking g trees. If the wood is not the weevils will also attack broad-leaved trees as well. eggs are laid on stumps or of felled trees, or in the trunks, and the larvæ feed een the wood and the bark, doing directly little harm. The es themselves, however, are lived and constitute one of the most trouble- enemies of forestry. The important things to t are the removal of stumps and logs and, if any been left, to dig up and burn them, so as to oy the breeding-places of the pests, or, at any do not replant an area where this is prevalent the stumps have decayed. They may be ed by laying pieces of fresh Scots Pine bark *on* round with the rough surface outwards. The es will collect under these to feed on the moist portion, and may then be collected and ed into a vessel containing paraffin. The will need frequent renewal in case they dry The destruction of the breeding-places is, ver, the most hopeful method of dealing with est.—ED.]

A GOOD TREE PÆONY.

I AM enclosing a photograph of a pale pink Tree Pæony. The largest flowers measured quite 8 inches across. It was a charming sight while the flowers lasted, as they opened very well together. If you think the photograph interesting enough to reproduce in THE GARDEN I shall be pleased. The tree is a very old one. I do not know exactly how old, as it was given to me as a full-grown plant. I take THE GARDEN and find it a most helpful paper.

Lutterworth. EDITH SIDGWICK.

ROBINIA KELSEYI.

THIS handsome Robinia was introduced from America about eight years ago, hence its scarcity in English gardens. Its showy flowers and graceful foliage suggest, however, that it will before long become widely grown, for it is one of the most beautiful of the dwarf-growing kinds. An affinity exists apparently between it and the Rose Acacia (R. hispida), the flowers of the two plants being very similar in colour and in general appearance. Those of R. Kelseyi are, however, smaller, and are destitute of the reddish bristles which are conspicuous on the calyx of R. hispida. The branches of R. Kelseyi are likewise free from bristles, and in this resemble the variety of the Rose Acacia called macrophylla. The foliage of Kelsey's Robinia is peculiarly elegant, the pinnate leaves being made up of small leaflets three-quarters of an inch to 1½ inches in length and less than half an inch wide. The flowers are in loose racemes and borne in June. Although when left to its own devices it develops more or less of a bushy habit, a little attention to training enables it to attain the dimensions of a small tree, and this is the condition under which it appears to the best advantage. In loamy soil it makes satisfactory progress, while it perfects its seeds in early autumn, a condition which is absent in the case of the Rose Acacia. The fruits are showy, being brownish and covered with stiff hairs.

A TREE PÆONY IN THE GARDEN OF ASHBY PARVA RECTORY.

A LITTLE-KNOWN HONEYSUCKLE.

(LONICERA MAACKII.)

THE numerous species of Lonicera may be easily divided into two distinct groups by reason of their difference in habit, for in one set the branches support themselves, while in the other a support is necessary to keep them off the ground. The climbing species differ also from those of bushy habit by bearing an indefinite number of flowers in compact, terminal heads, which are usually attended by large bracts; the bushy kinds, on the other hand, generally bear theirs in pairs from axillary buds on the previous year's shoots, or from short branches produced from axillary buds on such shoots. L. Maackii belongs to the latter group, and is one of the most ornamental of the many kinds. Although it has been in cultivation for many years, it attracted very little attention until a particularly floriferous form was introduced from China by Messrs. Veitch early in the present century. It grows into a bush at least 6 feet to 8 feet high, and the branches assume an open character. The flowers are white or pale cream, sometimes slightly flushed with rose, and as they fade they assume a buff hue. As is the case with many of the Honeysuckles, they are fragrant, and a well-flowered bush is delightful. W. DALLIMORE.

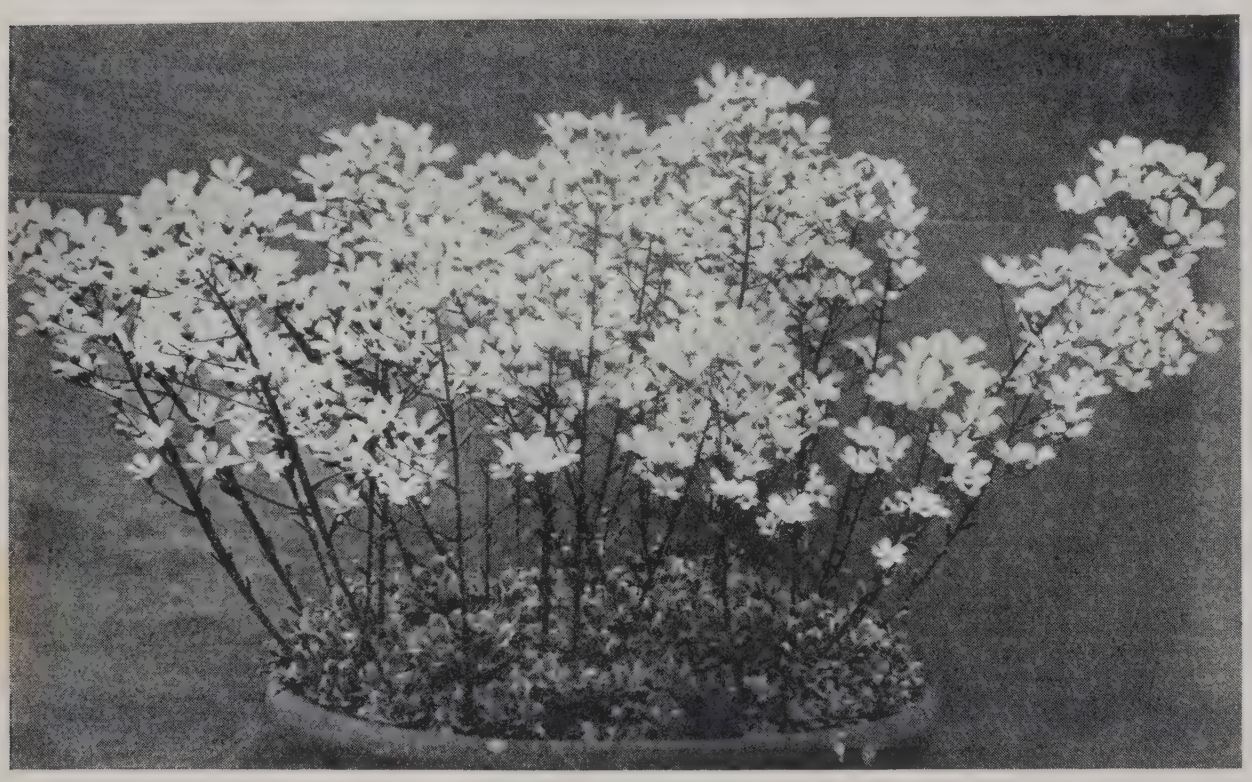
FLOWER GARDEN

SUMMER-FLOWERING SAXIFRAGAS.

A FEW kinds are naturally driven into the front in the Saxifrage family, and such as these—the "Field-Marshals"—are well known. That great host—the rank and file—are by no means so well known, yet for providing a continuous flowering are quite indispensable. Not a few of those whose knowledge of this remarkable genus is limited to such excellent sorts as S. apiculata, S. burseriana, S. sancta, S. oppositifolia, or those bright-flowered forms of the mossy group, would marvel not so much at the almost endless variety of these plants perhaps as the way that species succeeds species or variety succeeds variety in their time of flowering. At certain times there is, of course, a goodly number in flower; at other times only a couple of species in a large collection may be in bloom; but, all the same, it is difficult to find a break in the flowering during many weeks of the spring and early summer.

At the moment of writing—mid-June—when the great army of mossy kinds, coloured and white, have practically finished their flowering, there are still a number of beautiful kinds to keep up the succession. These embrace not merely some of the most diminutive of growers, but also some of the boldest and noblest of these plants. The bare statement that some of these reach to 2½ feet or even 3 feet high may not appeal to those who know little of the beauty of the flowering, yet there is nothing in the rock garden in summer-time to compare with the graceful pyramids of blossoms or with the effect they produce. Stature in many flowering plants we all admire; but in our dealings with alpine plants we are apt to lean too freely to the more diminutive, to the neglect of the taller and, possibly, the more imposing. And, of course, what would look well or ill is all a question of environment.

In the bolder types of rock we may plant in fissure and in crevice, colonising in the larger areas at our disposal many of the finest of these plants. Take, for example, some of the forms of Saxifraga Cotyledon, of which the type and the ever-popular S. C. pyramidalis are the best known, and which reach to about 1 foot high. This is an ideal plant, free and profuse in flowering, and lasting a long time in good condition. It usually begins to flower early in June in or around London, and there is a charm about it that catches the eye at once. A good silver, with somewhat cupped rosettes of spathulate entire leaves, it is at once a plant of merit and distinction. Happily, too, in sandy loam it grows freely, and because of this should be encouraged to make a good flowering each year. There is a major form which I regard as less good, while the minor variety, also freely known as S. valdensis, is a gem in every way, graceful and elegant in flower and invaluable to all lovers of good plants. Then in S. lantoscana and its variety S. l. superba we have two excellent rather long-leaved silvers worthy of a place in all collections. The S. Aizoon group affords many beautiful and good kinds, of which S. A. balcana, S. A. rosea, S. A. flavescens and S. A. lutea are among the indispensables. The latter three are comparative novelties, interesting by reason of the colour beauty they infuse into an otherwise somewhat uninteresting group. Though this may be taken as adverse criticism, it is intended to be so only so



THE SUMMER-FLOWERING SAXIFRAGA COCHLEARIS.

produce their snowy plumes 20 inches or 24 inches high. Finer still is S. C. icelandica—a giant among giants—which readily reaches 3 feet or 3½ feet. Late in June or in July a group of this in flower is really the most conspicuous thing a rock garden could boast of, the handsome plumes of white, pink-spotted flowers being very fine indeed. Then we have S. Hostii, a most valuable plant among silver kinds, and the handsome crimson-spotted S. macnabiana, which really combines the latter and S. Cotyledon. These may be flowered with a certain amount of confidence, and it is only a question of cultivation to develop the rosettes. The latter, by the way, have a conspicuous beauty of their own, even though not a flower is seen. Quite indispensable, too, is the great Pyrenean Rockfoil (S. longifolia), whose rosettes are handsome indeed. This latter species usually blooms and dies, offsets rarely appearing. The others named, reproducing themselves by means of offsets, increase readily, and no section of the Saxifraga family is more worthy of generous treatment or thoughtful care. Leaving these bold-growing and captivating kinds, we come to such intermediates as S. cochlearis, whose erect, full-flowered plumes of snowy whiteness far as the flowers are concerned, the habit being free and good and the whole of the varieties excellent for covering either stony and poor or loamy border soils. The crimson-spotted, white-flowered S. Dr. Ramsay is a gem of the first order not generally known. In growth it is a miniature S. longifolia, with near relationship to S. lingulata, and a delightful plant withal. The plant, however, does not make offsets freely, and, the older ones perishing after flowering, the variety will need careful treatment and close watching. Quite a gem in the July list, if only for the pronounced silver braiding of its leaves, is S. catalaunica, from Northern Spain. It is perfectly hardy, albeit a slow-growing plant, the flowers creamy in a short spike, and the buds and stems are pink. It is a valuable plant in dryish places for its conspicuous winter beauty, a point worth remembering when colonising these silver-leaved sorts. And there are many more; but, while I have no desire to make my list exhaustive or this note of inordinate length, I cannot refrain from mentioning such as S. cæsia, S. squarrosa, S. tombeanensis and S. tyrolensis as good representatives of the diminutive gem class, whose white flowers glisten above silvered tufts of incomparable density in some instances, *e.g.*, S. cæsia, a wond incrustation that is capable of sparkling even when not in flower. The places for suc these are the fissures and crevices of the r where, tightly wedged and afforded a deep run in gritty soil or against cooling rocks, t mountain treasures appear in their happiest g untroubled by the fact that they have fallen high to low estate—that they have left mountain air and home for scenes of greater acti to arouse interest and pleasure in the lowl places of our gardens.

Hampton Hill. E. H. JENKIN

SWEET PEA CHAT.

EVENING HOSING.—It is perfectly certain that plants will now be demanding, and it is to be ho receiving, constant attention in many cult details, since the success which is to be achie may easily be either favoured or prejudiced by management at this stage. One of the things wh aids the plants, particularly in the direction of ex lent stems, is evening syringing or hosing, accord to convenience. The necessity for maintaining soil moist is fully appreciated, but the fact that shoots harden and do not then make the progress th they should is not so readily acknowledged. Th however, is undoubtedly a fact, and after intens hot, sunny days the plants derive immense bene from heavy sprinklings. The trouble where a h is at command is small, provided that there good force of water; but, of course, if syring has to be had recourse to, the work will ta considerably more time and the results will not quite as good.

WATERING.—Although one takes watering to a simple operation, it is, as a matter of fact, one the most difficult of all gardening subjects thoroughly master, and it is the cause of m disasters with amateurs' plants than any oth single point of management. The common er is to apply too often and not in sufficient quan ties. To merely moisten the surface will not either good or harm as far as Sweet Peas are c cerned, but to give enough to penetrate 2 inch beneath the surface and to do this nearly eve day of the week will inevitably lead to troub since the soil becomes colder and colder, and last the roots will not feed in it satisfactori The proper method is to give enough to penetra down to the lowest roots, and then not to think giving more until the ground is again approachi dryness; then let the rule of a heavy soaking repeated. In the majority of instances the surfa will be heavily mulched, and it is always wise wh water has to be applied to draw back the coveri proceed to the watering, wait until the surfa has dried a little, stir lightly over with a fork, a then replace the material. It is not genera sound practice to pour the water directly on the base of the stems; a much better system is draw a drill on both sides of the row about 4 inch from the plants and to repeatedly fill these un it is certain that a sufficient amount of liquid h been given.

FEEDING.—This will be in active progress support the watering, and it is a phase of cultu to which it is impossible to attach too mu importance, because it is far easier to do harm wi special foods than it is to do good. Taking things into consideration, the amateur who c find it in his heart to utilise natural manu exclusively is wise; but there is no disputing t fact that when concentrated fertilisers are int gently employed they are conspicuously benefici The unfortunate part about it is that it appea well-nigh impossible to persuade some people understand how much stronger they are than t

FOUR GOOD SWEET PEAS.

Cream, Paradise Ivory.
Crimson, The King.
Lavender, Frank Dolby.
Pink, Mrs. H. Bell.

Hudson & Kearns, Ltd., London, S.E.

urals, and they apply them so strong that the ts either collapse or receive such a severe k that it requires weeks to recover fully from effects of it. Whatever food is decided upon, ather foods, for one kind alone will never prove atisfactory as three or four used in succession, uld be given very weak, as then no injury can ue, and the smallness of the actual amount of given at one time can be readily compensated by more frequent application. In particular rd to feeding each grower cannot do better than ere closely to those kinds which he has proved ring about the finest results in his own soil.

ULCHING.—There cannot be the smallest doubt o the decided value of covering the surface a mulch of sweet manure, but ould always be borne in mind it may tend to do harm if it llowed to settle down into a e mass; therefore the wise cul- tor, in order to guard against thing of this nature, frequently s over it with a fork and opens . This loosening has the desired ct, since it encourages the free sage of water, followed by the lth-giving fresh air. SPENCER.

COLOURED PLATE.

PLATE 1403.

FOUR GOOD SWEET PEAS.

JUST now the Sweet Pea season is at its zenith, and many will be eagerly comparing the merits of the newest varieties with the older favourites. ose shown in the accompanying oured plate claim a front place the ranks of standard varieties, h having some special merit. Paradise Ivory we have a flower much beauty and with a glisten- surface like that of mellow ry. The King stands in danger being ousted by Sunproof Crim- , but it is a good, robust iety, and will produce flowers rare quality if these are shaded m very brilliant sunshine. Frank lby is the best of the older ender-coloured Sweet Peas, ugh there are several new ones t are likely to supersede it in course of a few years. In Mrs. Bell we have a flower of quiet uty that never fails to appeal those who appreciate delicate ours. Unfortunately, the repro- ction is not quite true to Nature, re cream usually being found in the flowers than hown in the coloured plate.

THE ROSETTE MULLEIN.

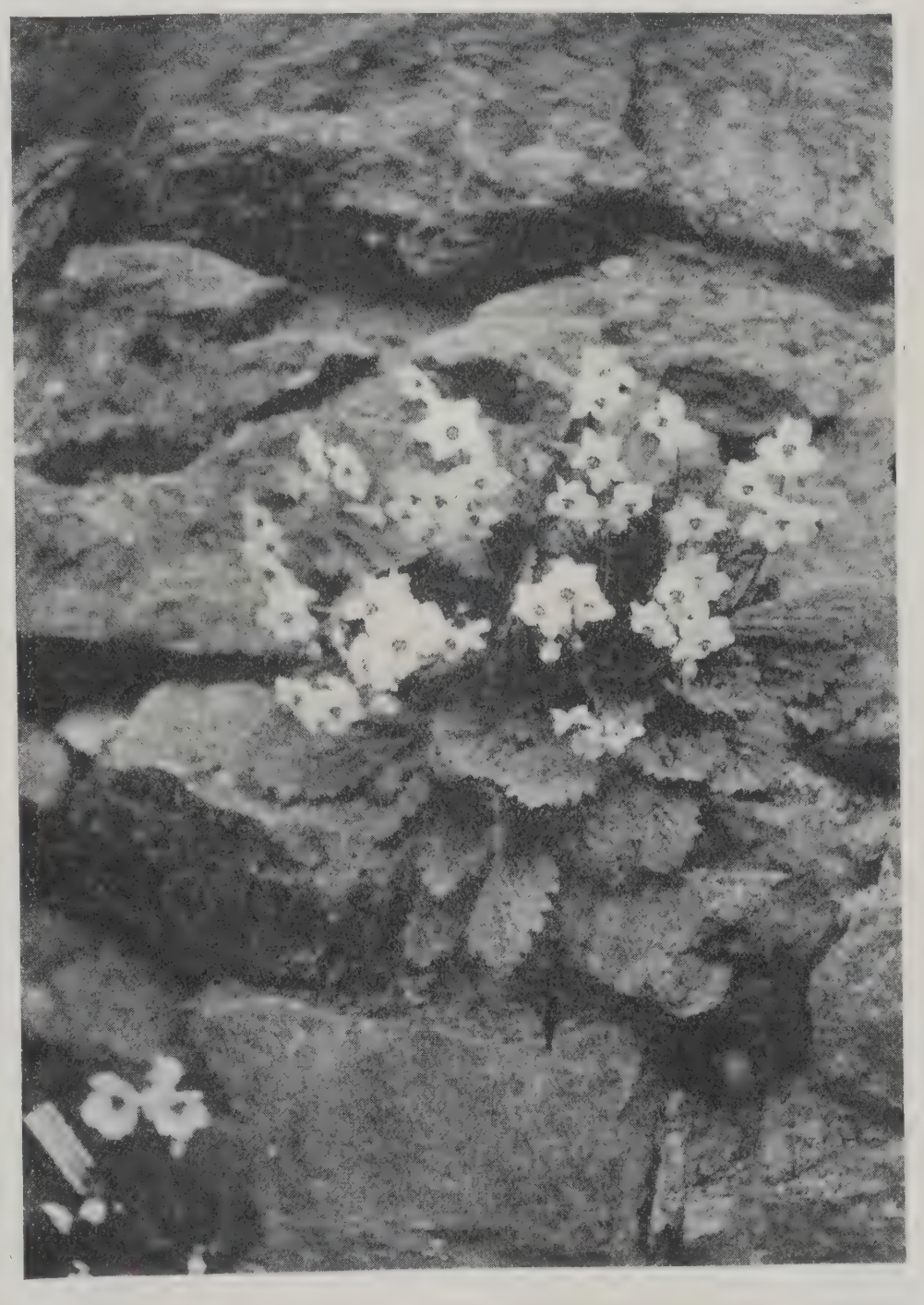
END you a photograph of the Rosette Mullein mondia pyrenaica), taken of a plant growing the rockery (north aspect) in the gardens of lksham House, Melksham, Wilts, the residence G. W. W. Blathwayt, Esq. The plant is a dling from seed collected in the Pyrenees many rs ago. The position seems to suit it admirably, it flowers well every year; the lower plant is white variety, planted last year.

Melksham, Wilts. R. H. LEGG (Gardener).

THE ROSE GARDEN.

ROSE ARTHUR R. GOODWIN.

THIS Rose is a great addition to garden varieties. Among the numerous coppery orange yellow kinds now in our collections, Arthur R. Goodwin will assuredly take a leading place. The flowers are medium in size and double, and the buds most charming. The foliage is very beautiful, a shade of reddish green, and the wood has long prickles after the style of the microphylla Rose Ma Surprise, but not so large. The influence of the Rosa pernetiana group is very evident, although perhaps it is nearer the Hybrid Teas. The section known as Rosa pernetiana is likely to become very numerous, and when we can add Rayon d'Or next autumn it will be possible to have beds of Roses of the delightful colour of the yellow Broom. P.



THE ROSETTE MULLEIN (RAMONDIA PYRENAICA) IN THE GARDENS OF MELKSHAM HOUSE, WILTS.

A DESERTED GARDEN.

IT was in a turning off the main street of a little Essex village that I found the deserted garden. Rising out of a wilderness of grass, to all intents and purposes a hayfield, was a low, wooden house, once white, but now sadly in need of paint, and smothering the woodwork from the ground to the roof, as though pitiful of its shabbiness, was a noble Alberic Barbier Rose in luxuriant bloom. There was no one to witness the trespass; the locked gate was vaulted, and lo! the hayfield revealed itself as the remains of a once well-tended garden. Most of the flowers had disappeared under the stress of misfortune, but here and there a clump of courageous Pansies struggled with the weeds in the long beds that skirted the drive, and out of the nodding grass peered standard Roses, old, sweet-scented favourites—La France, Duke of Edinburgh, Prince Camille de Rohan, Beauty of Waltham, Gloire de Dijon and so on—neglected, unpruned, eaten by pests, but still striving valiantly to impart some sweetness to the lonely wilderness. The Alberic Barbier succeeded best. No lack of pruning, no air-consuming weeds hindered its efforts. It flung its beautiful yellow buds almost to the chimney-pots, tapped with them at the closed windows, and hung like a veil over the long-disused front door. Nothing more beautiful could have been chosen to clothe the homely woodwork.

But passing round the house the forlorn front garden was forgotten. Here was a lawn some 20 yards square, bounded on the one side by a Laurel hedge, on the other by a row of arches, and at the back by a wire fence, which separated it from the kitchen garden, and arches and fence were a mass of the exquisite pink Réné André. It wove itself along the wire fence and ramped over the arches, where it was intermixed with Alberic Barbier (they are first cousins, by the way), and further investigation revealed it raised on a series of crazy supports bordering the road to some tumble-down stabling. No insects had defiled its rosy buds or vigorous, shining foliage. Raised in a solid wall against the blue sky it turned that shut-in, silent lawn into a glimpse of Eden. No care had been bestowed upon its arrangement. The garden was evidently the work of hands without brains behind them. The arches resolved themselves into an attempted pergola, beginning nowhere in particular and ending against the wire fence, and those across the roadway must certainly have been removed had anyone wished to drive round to the stables. But no one had, and the Roses triumphed. The moral of the story is, if you are too busy (or lazy) to give your Roses the attention they deserve, if your house is ugly and you wish to make it a thing of beauty, if, above all, you live on the heaviest and coldest and closest of clays, such as this was, and still yearn for a garden of delight, plant Alberic Barbier and Réné André, together or separately, on pillar or pergola or arch or wall, plant them and leave them, and they will reward your neglect with beauty and sweetness from earliest summer onward. If, on the other hand, you like taking pains and trying experiments, and are attracted by such graceful eccentricities as weeping standards, you cannot have more suitable subjects for training than these two beautiful wichuraianas. M.

GARDENING FOR BEGINNERS.

THINNING OUT ONIONS AND TURNIPS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN. — All spent crops must be cleared off the ground directly the last portion fit for use has been gathered. Peas and Beans harbour earwigs and other insect pests, old Cabbage stumps begin to grow again and rob the soil of much nourishment, and, furthermore, the remaining parts of vegetables

1.—SPRING ONIONS WHICH HAVE BEEN SOWN MUCH TOO THICKLY.

left on the ground always make the whole garden look untidy. It will also be necessary to clear the ground in order to prepare it for other crops. Potato haulm should never be allowed to remain on the ground for several days after the tubers are lifted. The haulm, together with other refuse, should be taken to a convenient place and burned in a common fire with old rotted Pea-sticks and similar material; then the ashes may be returned to the soil in due course, as they are valuable. Early Celery plants may now be earthed-up for the first time. Two earthings are really necessary, as the plants will continue to grow rapidly for some time yet. The soil placed to the plants blanches the stalks, but it prevents water reaching the roots in any great quantity, so that it is advisable to give the rows a good soaking first with clear, and then with manure, water before any soil is heaped up. It will only be necessary to fill up the trenches level with the surrounding ground at the first earthing. The soil must be kept from falling into the hearts of the plants, else the latter will decay or become badly marked. Press down the soil firmly around the Celery plants. More seeds should be sown of Lettuces, Endive, Radishes and early Dwarf Beans.

Flower Garden.—Privet hedges should be cut now for the second time this season; by so doing a close growth will be ensured, and, of course, neat fences or division hedges are a suitable frame to well-kept gardens. The shortening back of Laurel fences and any other trimming of shrubs with large leaves must be done with the aid of a sharp knife, so as to avoid unduly mutilating the handsome leaves, but shears may be used for Privet and plants of similar growth. The faded flowers of Rhododendrons should also be removed at once. It is a great mistake to allow the seed-pods to form and remain on the bushes, as they arrest new growth to a certain extent and make the shrubs look uncared for, although it is natural for the pods to form. Rose stocks planted out for budding must be examined, and any shoots growing from the lower part of the stem should be removed; only those branches near the top in which the buds are to be inserted must be retained. Put stakes to those stocks that are loose in the ground, as if they are blown to and fro when in this condition satisfactory growth will not result.

Fruit Garden.—Currants, Gooseberries and Raspberries will need every attention at the present time so as to preserve the ripening fruit from birds. Very often at this time of the year we have a spell of dry weather, and the effect is most marked upon heavily laden fruit bushes growing in a medium or light soil; leaves fall off freely. Of course, good surface mulchings are very beneficial and help to preserve the leaves in a green, healthy condition, but mulches cannot always be applied. In any case, where the leaves do fall off they should be cleared away and burned as soon as possible, because if left on the ground they would serve as a hiding-place for injurious insect pests. Black Currants growing on low north walls must be carefully netted, as the fruit is valuable indeed when the bulk of the bush fruits are all gathered. Grapes on outside walls should be thinned and not left to mature in a natural state, as the central berries decay in the autumn when moister weather comes, and the skins are soft owing to the ripening process. The bunches and berries, too, are much finer when thinning out is done.

Greenhouse and Frames.—Poinsettias do remarkably well in cool frames at this season. Well-rooted plants, which are the result of cuttings propagated in spring, should be placed in frames that are deep enough to allow of the glass lights being put down close during spells of adverse weather. The scarlet bracts are very effective for decoration in winter-time. The plants may remain in the frames until the middle of September. Where it is necessary to retain the plants in a warm greenhouse, they must be placed on a stage where they will receive as much light as possible, a fair amount of sunshine, and ventilation so that the wood will gradually ripen. There is no more suitable position than a frame for young Streptocarpi. These plants thrive splendidly on a moist bed of ashes. Fibrous loam, dried cow-manure, old mortar rubble and coarse sand form a nice potting compost. A. A.

THINNING SEEDLING ONIONS.

THE vegetable garden would be considered incomplete without a good breadth of Onions. A considerable variety is at present cultivated, each variety having its own peculiar uses, in some cases for salads, in others for ordinary kitchen uses or for exhibition. At the moment, however, we are chiefly concerned in cultivating summer Oni- for the home. I am quite safe in assuming th Onion seeds were sown in rows about two or thr months ago, and these must now be thinned ou There is an unfortunate tendency with inexper enced growers to sow Onion seeds too thickly, a the invariable result is seen in numberless seedlin being unable to develop satisfactorily. Sever rows of seedling Onions sown much too thickl are represented in Fig. 1.

The thinning-out process should begin when th seedlings are 3 inches or rather more high. Ou best Onion-growers emphasise the importanc of avoiding a severe thinning on the first occasion the process should be a gradual one. Wher young Onions are valued for salads, frequen recourse may be made to the rows of seedlings and by observing a careful and systematic cours of thinning the crop, the rows of plants will b properly thinned and an equal distribution o the better and more promising specimens represented by those retained. For ordinary culinary purposes Onions of medium size are better than the large exhibition specimens which all who are fond of high culture admire. Seedling Onions should be thinned out from 6 inches to 8 inches apart if fairly large specimens are desired; but for ordinary kitchen use and where bulbs of medium size are preferred, 3 inches to 4 inches, more or less, will answer the purpose. The thinning of seedling Onions must be done gradually and the more promising given preference. In the earlier part of the growing season use the hoe frequently between the rows of plants. Hoe frequently, and, when the thinning-out process is completed, give a mulch of lawn-mowings, or, what is better, well-rotted manure that has been passed through a coarse sieve. An inch or 2 inches of either of these mulching materials will save the frequent use of

2.—SPRING ONIONS THAT HAVE BEEN SOWN EVENLY AND THINLY AND SUBSEQUENTLY PROPERLY THINNED.

.—TURNIPS WHICH HAVE BEEN SOWN IRREGULARLY AND TOO THICKLY.

e watering-can and largely ensure the development of good bulbs. In Fig. 2 is shown a section a bed of Onions, in which the plants have been ry carefully thinned out and are now growing ırdily. In growing Onions for the home the ginner should remember to sow the seeds thinly. gin to thin the crop quite early, use the hoe ly and frequently to promote growth and keep e weeds under, and, finally, mulch the beds with me suitable material of the character previously scribed.

THINNING SEEDLING TURNIPS.

grow Turnips well, rich soil in which there is a r percentage of lime is necessary. This crop o revels in a good open, sunny position where e soil has been deeply dug and heavily manured. rnip seed should be sown at fairly frequent ervals, so that a supply of roots may always be l in cool and sweet condition. I am glad to that the seeds are sown broadcast less frequently w than formerly. It is much more satisfactory sow in rows, as the resulting seedlings and plants under better control. Too thick sowing is a mis-ke. In Fig. 3 a series of rows of seedling Turnips, ere the seed has been sown too generously, shown. Unless such seedlings are dealt h very early, the chances are they will not do well as the inexperienced grower might reasonly expect. Begin the thinning as soon as the gh leaves have developed, leaving a space tween the plants of about 4 inches, and again at ater period, when the young plants are satistorily progressing, finally thin out to 8 inches art. So long as it is possible hoe frequently tween the rows. It is an excellent practice fore the final thinning is done to give a thorough tering in the evening when the weather is hot l dry. In Fig. 4 an illustration of a few rows of rnips that have been carefully thinned out is wn. Careful observation of the plants in this stration will reveal the sturdy character of the p. Thinning out of the seedlings was begun ly, in consequence of which the plants never came drawn and weakly; this happy result is frequently met with in gardens where this important work has been delayed. Many growers prefer a cool and shady part of the garden when sowings are made in June and July. Some will even go to the trouble of giving shade by artificial means at this warm period. D. B. CRANE.

HOW TO PROPAGATE PINKS.

THE Pink is a very old favourite, and deservedly so. The growth of the plant is dwarf and very compact, and the flowers are borne in great numbers and are deliciously fragrant. They last for a considerable time in vases. The old plants must be renewed frequently, else the quality of the blooms will soon deteriorate and large portions of the plants often die suddenly. The plants are increased in two, or rather three ways—by division, by layering branches containing a number of pipings, and by the insertion of pipings commonly called cuttings. The last method is really the best of all. The cultivator must select a cool frame or a cool border facing the north, preferably behind a wall of medium height. The original soil must be dug and some very coarse sand added to it. When fairly dry, tread down the whole firmly, and then put a thin layer of sand on the surface. Select strong cuttings about 4 inches long, sever them just below a joint, and insert them in holes in rows 4 inches apart and 3 inches from cutting to cutting in the rows. The soil must be made very firm around their base, and it will be advisable to get the cuttings put in quickly. It is a good plan to keep them in a pail of water. Water when inserted and shade slightly. B.

THE TOWN GARDEN.

TUFTED PANSIES.—Where the plants have given their first flush of bloom and are now producing flowers of smaller size, it will be well to cut them down with a view to obtaining cuttings at an early date or to afford a further display of bloom at the earliest moment. The cutting over of the plants should not be done in any half-hearted manner; rather should the old tufts be cut down nearly to the soil to admit of the young shoots present in the centre of the tuft to get clear away. A few days after the pruning, and when the young shoots are showing freely, some fresh soil should be worked into and around the tuft, and, if watered occasionally, better growth will be encouraged while assisting the young shoots to form roots. In due time these young plants, if not required for flowering, should be detached and transplanted to a north border, where they will be safe till required for the autumn.

LARGE-FLOWERED PANSIES.—The very large-flowered strains of Pansies known by the names of Belgian Fancy, Empress, Exhibition and the like, and which in boxes of a couple of dozen or so find so ready a sale in Covent Garden Market early in the year, are the result of seeds sown during the summer months. Anyone may so raise these fine strains by obtaining seeds at the present time from any reliable source. The seeds will be best if sown on a north-west border, the surface soil having been well prepared for the purpose. To continually urge that all seeds of this kind should be "sown thinly" may appear monotonous, yet there is abundant need, as proved by many a seed-bed, that this oft-tendered piece of advice is still greatly needed. If readers would only take into account the number of seeds a packet contains and roughly estimate the development of a partly grown plant, a little intelligent thought would suffice for the rest. The thick sowing of seeds renders the transplanting of seedlings an immediate necessity, and in the case of these Pansies it is avoidable either wholly or in part.

CHINESE ASTERS.—The young plants of these frequently suffer from a fungoid disease which grips them at the collar, and to some extent the frequent stirring of the soil to dispel damp will, with a slight dusting of lime about the base of the plants, assist to keep the enemy at bay.

THE MADONNA LILY.—Lilium candidum is still one of the most prized of garden flowers, and probably one of the least understood. The so-called common white garden Lily is by no means so common as it was a score of years ago, yet for beauty it is absolutely unique. Not a few present-day failures are due to disease, many more being due unmistakably to mismanagement. This particular Lily may be said to be of an almost evergreen character, quickly throwing up its radical leaves after flowering is over. Almost simultaneously with these leaves the new roots appear for the season; hence to preserve both intact any replanting of the clumps should be done as soon as convenient after the flowering is over. This Lily objects to rich soils and much manure, and should be planted in a sunny place.

SWEET VIOLETS.—Should hot, dry weather continue, the plants of these in the open intended for frames during the ensuing winter should be freely watered overhead each evening. Should red spider appear—its presence may be detected by the yellow appearance of the leaves — a dusting of soot or a free syringing with soot-water will render the foliage distasteful to the pest. Free supplies of liquid manure may also be given the plants, which should be kept free of runners.

RANUNCULUS AND ANEMONE.—In the majority of gardens the tubers of each of these deteriorate

4.—THE RESULT OF EARLY THINNING IS WELL SHOWN HERE, THE PLANTS BEING STURDY AND OF AN EVEN CHARACTER.

when left permanently in the soil; hence it will be a good plan now to lift them and place in boxes of dry soil or pure sand to rest. In nature the first-named group inhabits positions where the plants are each year thoroughly baked, and as we cannot imitate such conditions in England, the best alternative is a long-continued rest in the dry state. E. H. JENKINS.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to the Editor, 20, Tavistock Street, Covent Garden, London, W.C.

SWEET PEAS FROM HISTON.

Mr. W. J. Unwin, the well-known Sweet Pea specialist of Histon, Cambridge, sends us flowers of several of his novelties for this year. Mrs. W. J. Unwin is a beautiful orange-flaked variety of the waved section, and we must confess that it is the only flaked Sweet Pea that we really like. Eric Harvey is a beautiful white and rose pink flower, the colour almost covering the back of the waved standard and slightly overlapping the edge in front. A bunch of this is very beautiful indeed. Edna Unwin is a charming orange scarlet variety that we remember seeing growing at Histon last year. It is vigorous and the flowers are good.

DOUBLE FRENCH RANUNCULUSES.

Mrs. Macalister sends from North Devon some charming flowers of French Ranunculuses, fresh, bright and interesting, with the following instructive note: "When the plants died off last season they were taken up, put in a sunny place, and covered with a sheet of glass. They were replanted at the beginning of April in a slightly raised, well-manured bed, and while growing have had a little weak liquid manure two or three times. They have flowered well, many of the plants carrying eighteen to twenty blooms."

RACEMES OF WISTARIAS.

Mr. S. Wood, The Gardens, Fullerton Manor, Andover, Hants, sends racemes which our correspondent supposes are of unusual length, two measuring 24 inches and the other 27 inches. They are, however, not those of Wistaria chinensis, but of an allied species, W. multijuga. The latter is a Chinese plant of peculiar interest on account of its long racemes, which sometimes attain a length of between 3 feet and 4 feet. It figures largely in Japanese art, and is a favourite subject for painting on silk for screens, &c.

INTERESTING FLOWERS FROM SOUTH DEVON.

Mr. F. W. Rich, The Gardens, Elfordleigh, Plympton, South Devon, sends a delightful series of flowers with the following note: "I am sending for your table a few flowering branches of Tricuspidaria hexapetala (better known as Crinodendron hookeriana), which has proved itself hardy in these gardens. It is a native of the low valleys of Chili and Valdivia, and is a very beautiful evergreen shrub, soon developing into a fine plant. I find it thrives best if planted in peaty soil and in a partially shaded situation. The flowers, as you will see, are very attractive, being bell-shaped and in colour a coral red; they last a considerable time on the plant after they are fully expanded. I am also sending flowers of Abutilon vitifolium and A. v. alba, which is also a native of Chili and is quite hardy here, growing to a height of 20 feet or more. Unfortunately, it is subject to a disease, which has killed several very fine specimens here during the last three or four years, and although we have tried various methods and remedies to prevent their dying, all our efforts have failed. It is, however, so easily raised from seed (in fact, self-sown seedlings come up in these gardens in great numbers) that there is no difficulty to keep up a stock. You will also notice I have enclosed flower-sprays of Calceolaria violacea, which, unfortunately, is not quite so hardy; it has to be protected during the winter in these gardens, and even then it gets badly damaged sometimes by a severe frost. It is, however, a very beautiful little Chilian shrub, and too much praise cannot be bestowed upon it."

NEW PLANTS.

ROYAL HORTICULTURAL SOCIETY, JUNE 21.

DELPHINIUM PURPLE VELVET.—A glorious single-flowered variety with strong and long spike. The colour is dark purple. Exhibited by Messrs. James Kelway and Son, Langport. Award of merit.

Delphinium Theodora.—A very fine double-flowered variety of creamy or ivory white. It is perhaps the best of this shade to date, the spike being compact and of good proportion. From Mr. G. Ferguson, Weybridge. Award of merit.

Iris Fulvala (I. fulva × I. hexagona Lemancei).—A very beautiful and interesting hybrid of nearly uniform purplish colouring. The branching character of the hybrid is also distinct, the newcomer being of a decidedly artistic bearing. From W. R. Dykes, Esq., Charterhouse, Godalming. Award of merit.

Kalanchoe kewensis Excelsior (K. flammea × K. Benti).—A very beautiful and showy hybrid, having handsome, loose corymbs, of rich rosy carmine flowers. A very striking plant. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Sweet Pea Sunproof Crimson.—If this variety is all the name would convey—and it is said to be absolutely so—it will be valuable indeed. The flower is of the finest Spencer type, and never scorches even under the hottest sun. The exhibited specimens were very fine, taken, we were informed, from the open field, where no protection of any kind had been afforded. Award of merit.

Sweet Pea Ivanhoe.—A very beautiful variety of pale heliotrope shade; need we say more? This fine pair of Sweet Pea novelties came from Messrs. Dobbie and Co., Rothesay. Award of merit.

Iris albopurpurea colchesterense.—The varietal name here given distinguishes a very beautiful and highly ornamental plant from the species described some years ago in the *Botanical Magazine*, the present plant having been received from a distinct source under the specific name. In many ways the plant is a great beauty, indeed, well-nigh unique, and for water-side gardening or those moister spots in the garden in which so many plants delight will be found a great gain. The long, ovate falls are of deep violet blue, with white base, and irregularly bordered white. The long, erect and narrow standards are bluish white and slightly waved at the margin. It is a plant of distinction and great merit, for which any description would prove inadequate. From Messrs. R. W. Wallace and Co., Colchester. Award of merit.

Rosa Freda.—A beautiful, shapely, well-formed Hybrid Tea having the long, tapering flowers of Mrs. W. J. Grant. The colour is deep pink. From Messrs. Paul and Son, Cheshunt. Award of merit.

Odontioda Vuylstekeæ Walton Grange variety.—A very fine variety of brilliant colouring and distinct markings. The individual flowers, if not large, are of beautiful form. The colour is an intense brilliant scarlet, the sepals being lightly bordered with rich yellow. The lip, too, is distinctly chequered, the golden-coloured crest assisting further to distinguish a very beautiful variety. Exhibited by W. Thomson, Esq., Walton Grange, Stone, Staffs. Award of merit.

NEW FRUIT.

Strawberry Mark Twain.—A free-bearing, white-fleshed variety of moderate size, and in shape not unlike Sir Joseph Paxton. The fruits are of a rich scarlet colour and of good flavour. The variety is said to be good for cultivation under glass, the raiser claiming that it is about a week earlier than the popular Royal Sovereign when so grown. Exhibited by Mr. F. B. White, Old Netley, Southampton. Award of merit.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Daffodils for rough grass (*Rosa Rugosa*). We think you would do well to avoid all formality, whether of colour or design, in planting the grass area referred to, the natural pictures informally grouped now in colonies, now in drifts, possessing much the greater charm. For the purpose such incomparabilis sorts as Sir Watkin, Frank Miles, Stella, Stella superba, Autocrat and Crown Prince are all good. To these Barri conspicuus, Leedsii (type), most graceful, white; L. superba, Duchess of Westminster, Burbidgei John Bain, Falstaff, with poeticus and p. ornatus should be added. Princeps is still one of the most graceful of trumpet sorts, and with Empress and Emperor a good trio would be formed. The whole of the above are well suited to the work; many are quite tall and effective, while the whole are among the cheaper sorts of this popular race.

White Lupine failing (*Rosa Rugosa*).—Several instances of the flower-buds falling from the white Lupine without opening have been brought to our notice of late, but the circumstances in no two instances agree. Some plants are very old and long undisturbed, others were growing in very light and dry soil, and so on. The plant is at its best at two years or three years old from seed; divided plants, displaying less vigour, are apt to canker at the root. With a fairly good idea of the soil conditions of your district, we should think that with good border treatment success should be assured. The white variety generally, however, is best in light and well-drained soils, which should be well enriched. If you cannot give any further particulars, we advise that you presently lift a plant for examination to see the condition of the roots. Root check, whether by insect-life or over-wet soil, would at once account for the failure.

Pæony for inspection (*F. Lurani*).—The fungus attacking the Pæony is Botrytis cinerea. The dead portions should be removed and burnt, and the top 2 inches

of soil removed from about the plants and replaced with fresh containing some powdered lime and sulphur.

Carnation diseased (*O. W. A. H.*).—The plant has been attacked by stem fungus at the soil level, for which there is no remedy. You would do well in such instances to at once burn the plant and soil. The latter is too light for good Carnation culture, and a third more of loam added to the bulk when again mixing would be an advantage.

Primula frondosa failing (*Herbert Jenner*).—The most probable cause is soil fungus, and this, in conjunction with an excess of atmospheric moisture about the plants, would be responsible for sudden failure or collapse. Excess of moisture in the soil would also lead to the same cause. We notice the root-fibres are in many instances quite rotten, and one or the whole of the above causes combined may be responsible for it.

Propagating Ranunculus acris flore-pleno (*J. Robinson*).—The best way is by division when the plant is at rest, or, say, between September and March. If you lift the clumps in March and wash away all soil from the roots, it will enable you to see how best to go to work. For safety, the divisions would be best potted up for a time and placed in a frame. The plant delights in cool and moist soils.

Phloxes unhealthy (*Miss Davies*).—The condition represented by the Phlox specimens you submit is not infrequently caused by a rupture of the sap-vessels through the bursting of the stems at or near their bases in times of frost. Accidental injury to the stem will occasionally give rise to a similar condition. Usually with such growths removed and the clumps not allowed to remain too long in any one position the trouble disappears.

TREES AND SHRUBS.

Varieties of the Tree Ivy (Hedera arborescens) (*S.*).—All the so-called Tree Ivies are varieties of the adult form of the common Ivy, and are known as Hedera Helix var. arborescens. The tree forms do not come true from seeds, for if seeds are sown the young plants all develop the trailing form. The tree or bushy form of the Ivy is the fruiting or adult stage, and until this condition is reached no flowers or fruit are produced. The tree forms are perpetuated by means of cuttings or by grafting small pieces on to stocks of the juvenile form. The strong-growing kind, which is well known under the name of Irish Ivy, is the best one to use for stocks, and grafting ought to be done indoors in spring, the stocks having been previously established in pots.

Difference in growth of Retinospora (*Wilfrid Tilutt*).—The difference in growth which has occurred on your Retinospora, and of which you send pieces, frequently occurs in the species. Retinospora or, giving it its correct name, Cupressus plumosa, is a juvenile form of Cupressus (Retinospora) pisifera, which by propagation has been moderately well fixed. Under cultivation, however, as the plant advances in age, branches are apt to turn to the adult form, and this is what the branch in question on your tree has done. It sometimes happens that a whole plant of the juvenile plumosa takes on the habit of the type pisifera in the course of a few years. This difference in habit between the juvenile and adult stages in plants is very noticeable in some instances, especially in the genus Cupressus, while it is also well marked in some of the Pines. Perhaps the most familiar example, however, is the common Ivy, for, as you will have observed, the common trailing Ivy only needs to reach the top of a wall or tree to at once alter its character and assume a bushy habit. Advantage has been taken of this trait in its character to propagate the mature form, which keeps fairly true, and by this means the so-called Tree Ivies have been obtained. As you presume, the Cupressus (Retinospora) pisifera plumosa aurea is a golden-coloured form of the one you send.

Pruning Rhododendrons and other shrubs (*A. H. R.*).—As your Rhododendrons do not flower and, consequently, their blossoms for this season would not need to be considered, it would have been much better had you cut them back at least six weeks ago, as then not only would there have been a much longer growing season, but the plants would not have spent a good deal of their energies in the production of new growths. Still, it is really not too late to prune them, although they would hardly recover therefrom sufficiently to be moved in the autumn, so that the better plan will be to delay the shifting for another year. All the shrubs concerning which you enquire should be pruned directly the flowers are over, that is, if the blooms for the season are taken into consideration; but if this is not the case, pruning as above advised for the Rhododendrons may with advantage be carried out towards the latter part of April. In the case of old-established plants, this item is of more importance than when they are young and vigorous. Among the shrubs named by you are the Brooms, which, if old, cannot be depended upon to break out in a satisfactory manner when cut back hard; indeed, the only available course then is to root them up and replace with young plants.

THE GREENHOUSE.

Scale on Palms (*A. A.*).—You do not say whether it is white or brown scale with which your Palms are infested. If it is the white scale, we know of no insecticide which will kill it without seriously injuring the foliage of the Palms. The only way is to brush it off with a dry brush, and then wash the plants afterwards with soft soap and water. If it is brown scale, it may be cleared by sponging the plants with the following solution: Six oz. of soft soap in one gallon of warm water. If this is carefully done and every scale removed, your plants will remain clean for a long time.

Gloxinias and Cinerarias going brown round the edges of the leaves (*F. G. H.*). Gloxinias and tuberous-rooted Begonias have been badly affected by a troublesome fungus in many gardens this year. The best way of destroying it is by the application of flowers of sulphur to the affected parts of the leaves and stems. From your description we think both your Gloxinias and Cinerarias are suffering from the same pest. Sometimes Gloxinias are badly infested with thrips. You will soon find out whether yours are or not. Careful sponging with soft soap and water is the only way to rid the plants of them. If you sulphur your plants, keep them cool and shaded for a week afterwards.

The old scented Musk plant (*E. L. B.*).—From our own personal experience and the numerous enquiries received by us, we are forced to the conclusion that the old Musk plant has to a great extent lost its one-time desirable qualities. We are sorry that we cannot give any further information on the point, but perhaps some among our many correspondents may tell us where the old sweet-scented Musk plant is still to be obtained.

Painting interior of greenhouse (*H. Chaber*).—The appearance of dark patches on the wood of your hothouse would almost suggest that the Pitch Pine employed was insufficiently seasoned, or that it contained a certain amount of sappy wood. If not this, it is very probable that the dark colouring is caused by resin, with which the wood of the Pitch Pine is heavily charged. Before painting, all knots should be well covered with knotting in order to prevent the resin escaping. Instead of using Carbonyle, we should advise you to varnish the wood in the following manner: Clean off all paint and dust the wood thoroughly; then give a coating of oil, which must be prepared by mixing 1oz. of terebine to every pound of linseed oil. When this coat is perfectly dry it should be varnished with what is known as hard church oak varnish.

Eucharis going wrong (*H. T., Stafford*).—There are no traces of the Eucharis mite or any disease to be found in the bulbs sent, therefore the cause of the trouble must be sought elsewhere. One thing, however, is very evident from the enclosed specimens, and that is, the roots are not in good condition, and they have probably been failing from the date that the leaves commenced to show a yellow margin. You speak of repotting them last year, but do not say whether the old soil was taken away from the bulbs, or whether the ball of earth was simply transferred to another pot. If this latter had been done, the young and tender roots would have but a poor chance to develop properly. We have of late years been several times consulted with regard to plants of Eucharis falling into ill-health, and the plan of restoration that we have advocated has proved perfectly successful. In the case of unhealthy plants whose roots are in a poor state, the first thing to do is to turn them out of their pots and shake off as much as possible of the old soil. Then wash the bulbs and roots in tepid water and lay them on a bench for an hour or two to drain. In this way you are enabled to ascertain the exact condition of the roots, when all decayed ones should be cut clean away. They are then ready for repotting, and in practice it will be found a good plan to pot the bulbs singly or to put three around the side of the pot rather than attempt to build up masses or clumps till the bulbs are well rooted. Care should be taken not to have the pots too large, as the all-important item is to encourage healthy root action, and this will not happen if the bulbs are surrounded by a large mass of soil. The pots must be quite clean and effectually drained, a very suitable compost being that named by you, from which, however, under the circumstances we advise that the bone-meal be omitted. When potted the leaves should be secured to a stick in order to prevent them swaying about, as this greatly retards the action of rooting. After this the plants may be plunged into a gentle bottom-heat if available, and be kept shaded from the sun. Particular care must be taken not to over-water, especially till the roots are again active and take possession of the new soil.

Leaves of climbing plants for inspection (*E E. H.*).—We never before remember seeing the leaves of climbing plants in as bad a state as those sent by you. In addition to being coated with the excrement of aphides or green fly there are also many small scale insects on them. Fumigation will destroy the living aphides, but more drastic measures are needed in order to restore the leaves to their normal state. The only way in which this can be done is to take down the climbers and thoroughly sponge every leaf both on the upper and lower surface and every stem with a strong lather of soap and water. It is probable that a lot of trouble may be saved by cutting away a good deal of the plants, leaving only the best and healthier shoots, as these once cleared of their coating of filth will soon push out new growth. Even when the plants are quite clean the house should be fumigated on the least sign of green fly.

Cuttings of Camellia (*Mrs. L.*).—The varieties of Camellia japonica are very difficult to strike from cuttings, though we have occasionally known them to be rooted in this way. The only method by which you have any chance of striking them is to take cuttings of the current season's shoots when they have lost their succulent character and are in what is termed a half-ripened state. Shoots of medium vigour, not the very strong ones, make the best cuttings, and if they are not more than 4 inches in length, the entire shoot should be taken, as from the base just where it leaves the old wood roots are produced more readily than from any other part. The cuttings must then be dibbled firmly into well-drained pots filled with a mixture of equal parts of loam, peat and sand, which should be pressed down firmly. They must then be placed in a close propagating-case in a structure where a temperature about 10° warmer than the greenhouse in which they have grown is maintained. After about six weeks, if the pots can be plunged in a gentle bottom-heat, so much the better. The small-growing Camellia Sasanqua is not at all difficult to strike when treated in this way; but, as above stated, the forms of Camellia japonica do not respond so readily to this mode of treatment, while the huge-flowered Camellia rosæflora is much worse. In nurseries Camellias are grafted on to seedling stocks, the seed being principally obtained from Italy, where the Camellia fruits freely. It is an exceedingly difficult matter to suggest anything to furnish your flower-beds after the Shirley Poppies are over. As you require dwarf-growing subjects, it occurs to us that bedding Violas, putting one distinct sort in a bed, would be likely to give the greatest amount of satisfaction. They would, of course, need to be planted at bedding-out-time, and would flower throughout the summer. The dwarfer forms of Asters, if sown at once, should be sufficiently advanced to bed out at about the time stated, and the different Marigolds sown now will flower throughout the summer. The same remark also applies to the Eschscholtzias. Of the dwarf French Marigolds there is a yellow-flowered form that might suit your purpose. Dwarf Petunias, too, will flower over a lengthened period. Tagetes signata is another subject that will flower throughout the summer. Any of these that may be selected should be sown at once.

FRUIT GARDEN.

Gooseberry and Currant saw-flies (*J. G.*).—Saw-flies are not likely to be attracted in the way suggested. Hellebore powder may be dusted over the bushes, and this will poison the grubs, but it is dangerous to use just before the berries are picked for use. Lime dust may be thrown up into the bushes with good effect if used while they are damp with dew, and even spraying smartly with water and then immediately and thoroughly hoeing the ground about the plants will destroy large numbers of the pests.

Pear leaves for inspection (*G. H. N.*).—The Pear leaves are attacked by the Pear-leaf blister mite (Eriophyes pyri). This mite burrows into the leaves and causes the formation of blisters such as are seen in the leaves you enclose. It is exceedingly small and practically invisible to the naked eye. It will sometimes attack a plant year after year and spread but slowly to others; at other times its spread is more rapid. Perhaps the best method of attack is to spray just before the bud-scales open with a mixture of 3lb. of quicklime and 1lb. of caustic soda slaked with hot water, to which 3lb. of flowers of sulphur has been added. The mixture should be stirred and 3lb. of salt added. Allow it to boil for some time, then add enough water to make ten gallons. Spraying must cease as soon as the bud-scales open.

Gooseberries for inspection (*J.*).—The Gooseberries are attacked by the American Gooseberry mildew (Spærotheca mors-uvae), and notice of this must be at once given to the Department of Agriculture (Technical Instruction) for Ireland, who will direct what steps to take. A penalty attaches to failure to notify. There was no orange fungus sent. The shrub is the Sea Buckthorn (Hippophae rhamnoides).

Leaves and fruit-stalks of Raspberries destroyed (*Edward Ward*).—Had you sent samples of the leaves and fruit-stalks eaten off, we could have told better whether the damage had been caused by birds or by some four-footed enemies. We suspect the latter. Are there any mice about your garden? They are often very destructive to young foliage. In case the damage has been done by birds or bats, we would advise you to have the Raspberries netted, and to set traps in case there are mice about. Blood is a very powerful manure, being rich in nitrogen. It should be dried before it is used, and then mixed with garden mould before it is applied—a handful of the dried blood to a gallon of mould. Spread this over your Vine border as a top-dressing, a gallon to a square yard, giving your border a good soaking of water afterwards.

Muscat Grapes diseased (*Reader*).—The damage to your Muscat Grapes has been caused by what in garden parlance is termed "scalding." The Muscat of Alexandria is specially liable to damage from this cause, as is also the late variety, Lady Downe's. Most other varieties are practically immune from its ravages. It is caused primarily by inadequate and too late ventilation in the early morning, the action of the sun striking on the vinery when the air inside is heavily charged with moisture causing the mischief. The way to avoid being troubled with it again in future years is to guard against a recurrence of the conditions which bring it about. This is best done by having a little heat in the hot-water pipes always, but especially at night, up to the middle or the end of June, leaving also a small chink of air both front and back of the vinery all night (excepting, of course, in very cold weather). This secures a sweet and buoyant atmosphere and a free circulation of warmed air at all times. To stop its further ravages we advise you to adopt the above practice at once.

Peach leaves diseased (*L. Ashford*).—Your Peach trees are affected by what is known as Peach blister, and has been caused by an attack of fungus (Exoascus deformans). The conditions favourable to an attack of this mildew have been provided by the extreme changes of temperature, especially by so many frosty nights experienced this spring. It is a long time since we have seen so much Peach blister in gardens as is to be found this year. The best way to destroy the mildew is by scattering flowers of sulphur all over the trees, the healthy as well as the diseased parts, leaving it on for forty-eight hours and then washing off with a syringe. The diseased leaves will mostly turn black and crumble off in time, and with the advent of warmer weather new, healthy growth will be provided, with the help of which the fruit will swell and ripen satisfactorily, we hope. The best way of preventing its attack is by providing efficient protection from cold winds and frost in spring by hanging blinds, nets, &c. "Medela," sold by Messrs. G. Bunyard and Co., Maidstone, is said to be a good remedy for this disease.

KITCHEN GARDEN.

Failure of Asparagus in Staffordshire (*Nonplussed*).—It is simply because the Asparagus (which is a native plant) grows naturally on sand-banks on many of our warm coast lands, especially in Cornwall, plainly showing the character of the soil and climate which suits it best. You say your soil is heavy and cold, and we know that many parts of Staffordshire, especially North Staffordshire, are very cold in winter, and, therefore, if you are to succeed in its growth, you will have to do your best to provide the conditions most favourable to this end. In your case, if they are not already in existence, we should dig out alleys or trenches each side of your beds 18 inches wide and from 9 inches to 12 inches deep. This will help to keep the beds drier and warmer in winter than if on the level ground, and instead of placing a dressing of rotten manure on in autumn, cover the beds over with dry leaves or litter to the depth of 12 inches. Clear this away in spring, and at the end of March give the beds a dressing of well-rotted manure 3 inches deep, covering this over with a further 2 inches of soil from the alleys beside the beds. Do not dress your beds with salt, as it is of a cold nature and lowers the temperature of the soil. Use instead Peruvian guano once about the middle of April and again towards the end of May. The great thing to aim at is to keep your beds fairly dry and warm in winter, and not to cut the grass too late in summer. If you can occasionally give a bed a rest, not cutting any grass at all for one season, it will greatly help them to produce better and more grass for many years afterwards.

Potatoes and Peas attacked by worms (*W. N. Green*).—The pests are millipedes (Julus). They usually abound where the soil contains much organic matter and little lime. Persist in the use of one of the soil fumigants. Another plan you might adopt with advantage would be to sow the affected parts with Carrots or Turnips, preferably the former; then pull them when well grown and immediately burn or otherwise destroy them and the pests with them. Pigs might be fed with them. The Carrots will act as traps for the pest.

MISCELLANEOUS.

Rose to name (*Mrs. L.*).—The name of the Rose you send is Fortune's Yellow, sometimes known as Beauty of Glazenwood. It is a charming old Rose, well worthy of being propagated, and it may readily be increased from cuttings of the flowering shoots, or a growth springing from the base of the plant may be layered in a similar manner to that of the Carnation. The cuttings should be about 6 inches long and taken with a joint, or "heel" as it is termed, cutting the "heel" over with a sharp knife. Retain the top leaf, and dibble cuttings around a large 3-inch pot in which some gritty compost has been placed. Plunge the pots of cuttings in some fibre or ashes on top of a manure-bed or in a propagating-frame in the greenhouse. There must be a fairly strong bottom-heat, say, about 75°, and the glass must be shaded from bright sun with a sheet of newspaper. In about a month the cuttings will be ready to pot off into 3-inch pots. Keep them in the greenhouse, and as roots fill the pots give the plants larger pots as required. Fine, strong plants may thus be raised in a few months, and can be used either for sunny outdoor walls or for planting out under glass, where this Rose flourishes so beautifully.

Hours of work for gardeners in summer and winter (*Beds*).—There are no generally recognised hours of labour in garden work, no authority existing which could enforce a recognition of this nature. The question is governed primarily by the custom prevailing in the district in which the garden may be situated. It is quite open to any owner of a garden to lay down rules of his, or her, own in this matter, and to enforce their observance. There are many employers who do so, and as a rule during the last few years these have been more in favour of the men than the old ones they replaced. The custom still prevails in many gardens for the men to work from six in the morning to six in the evening during summer, with an hour off for breakfast and the same for dinner. This makes a day of ten working hours. In the winter the hours are from light to dark, meaning from 7.30 a.m. to 4.45 p.m., with half-an-hour for breakfast only. By this arrangement the working hours per day in winter are practically eight. Christmas and Good Friday are observed as holidays in all good gardens, and paid for. Some relaxation is also granted to the workmen in most gardens on Bank Holidays. In one famous garden we know, the rule was made that the men on those days worked until 2 p.m. and then were given the remainder of the day. Saturday half-holiday: This institution is becoming more popular and general in gardens every year. There was a great outcry against it at one time, and all sorts of catastrophies were predicted as going to happen to the work and welfare of the garden in consequence. However, the boon was keenly appreciated by the men, who in consequence worked the better and were made the happier and more contented by the concession. The above applies more particularly to garden labourers. As regards young gardeners, they work the same hours (and often longer), and the same remarks apply to them as regards holidays as far as it is practicable to carry them out without neglecting important duties in glass houses under their charge. This may be safely left to the head-gardener to arrange with his young men, and the employer may rest assured that his interest will not be permitted to suffer.

Insects for identification (*F. T. P.*).—The small fly is a caddis fly, the larva of which makes little cases of stones, shells and so on, in which it lives among the mud at the bottom of ponds and streams, feeding on plants and sometimes damaging Water Lilies. The larger insect is the great water beetle, Dytiscus marginalis. It is an extremely voracious animal, both in the larval and perfect stages, both of which are passed in the water. It feeds upon all sorts of water insects, and even fish and tadpoles.

Clearing a pond (*G. E. P.*).—When the mud has been cleared out, you might, before doing anything further, distribute a few bushels of air-slaked lime and dry soil over the bottom and clean shovel off the whole, as the lime and soil will absorb much of the moisture and the impurities existing. Then you might aerate the bottom for a few days with a thin dusting of lime over all, again clearing it out if moisture exists. A yard of lime with an equal amount of dry soil, or a further half yard of lime should the soil be inconvenient on the spot, will be sufficient for all purposes. When this is completed allow the water to come in again. By washing out the water again and thus clearing away much of the absorbed lime, there should be no further danger to the fish when the pond is again refilled.

Pansies for sale in boxes (*Pansy*).—You are not wise to engage in such work without even a frame, and a few of these for raising the seedlings would be of great assistance, more particularly to stay evaporation from the soil and to keep off birds and other animals. Less costly than frames as ordinarily understood would be some planks set on edge to the width of some spare frame-lights and covered with them. The more showy kinds are the Belgian fancy sorts, obtainable from all the leading seedsmen. The prices vary according to the season, quantity available, quality and strain. One pound of seed would contain many thousands. The Trimardeau strains are very showy and large, though the Continental specialists of the flower have dozens of choice named varieties, some of which if required in bulk would involve considerable outlay.

Garden expenses (*Tomato*).—To enable a garden of an acre in extent, two good-sized greenhouses, and an orchard of fruit trees one acre in area to be well looked after, thoroughly cultivated and profitably cropped should very severely tax the capacities of any one gardener, however industrious he may be. Certainly he would need the regular assistance of a strong lad, or that of a man, at least a couple of days per week. As to securing from such an area sufficient produce when sold to pay wages and garden expenses, we see not the least possibility. Not only must produce be first-rate, but it must be very abundant and, still further, find a good market. A good man's wages should be 26s. per week and rooms, but we know nothing as to the prevalent rate of wage in your locality or of market facilities. Small areas of land can be made to pay only when worked by their owners who pay no wages.

Capturing earwigs (*M. D.*).—These insects, being capable of flying as well as of creeping, are difficult to capture and destroy while active, especially as they feed only at night when all is quiet. If they feed on plants, it is well to place sticks to them near or close to the stems, on the tops of which are inserted quite small, clean flower-pots, into each of which has been placed a piece of clean moss which about one-third fills the pot. Into these traps the insects crawl at night, finding in the moss the desired harbour. These pots should be examined each morning, the moss being carefully drawn out while held over a pail half filled with water. Similarly small plants may be placed about on the ground where earwigs feed, but be either elevated on very short sticks or lifted on one side only. Larger pots laid on their sides on or about the ground, if half or three-parts filled with moss, make excellent traps. So also will pieces of hollow stems. If thought to harbour close to walls or fences, give occasional soakings with boiling water.

Palm for south window (*J. M.*).—We presume that the Palms are not exposed to the sun in the drawing-room whose windows face the south, for Palms of all kinds need under such conditions to be shaded from the direct rays of the sun during the greater part of the day. The hardiest and most accommodating Palm that we know for such a purpose is Rhapis flabelliformis, but good, well-furnished specimens are difficult to obtain. Corypha australis is also one of the hardiest, but its habit is too stiff to render it a desirable drawing-room Palm. Good Palms for the purpose are Kentia belmoreana and K. forsteriana. These, which are largely grown for decorative purposes, can be obtained in all sizes. The demand for them is so great that they are in some nurseries grown by thousands, and in order to obtain plants quickly a considerable amount of heat is employed. This is often the cause of these Palms dying, as, taken into a dwelling-house, they miss both the heat and atmospheric moisture, and soon collapse. The months of June and July are the best to obtain Palms for this purpose, as there is then not so great a difference between the temperature of the houses in which they are grown and the outside air, while there is ample time for them to become acclimatised before autumn sets in. An important point, and one frequently overlooked when Palms are kept indoors, is on no account should water be allowed to stand in the jardinieres or other receptacles in which the Palms are placed, as this causes the soil to turn sour and the plant falls into ill-health.

THE GARDEN.

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CONTENTS.

THE WOBURN EXPERIMENTS 333
NOTES OF THE WEEK
Forthcoming events 334
CORRESPONDENCE
The degeneration of the Potato 334
GARDENING OF THE WEEK
For the South and South Midlands.. 335
For the North and North Midlands.. 335
Interesting plants at Liverpool Botanic Gardens 336
FRUIT GARDEN
Notes on Morello Cherries 337
FLOWER GARDEN
Two beautiful new Irises 337
The double-flowered Daisy Alice.. .. 337
KITCHEN GARDEN
Notes on vegetables 338
TREES AND SHRUBS
The pink Broom of New Zealand .. 338
Clematis alpina .. 338
ROSE GARDEN
The Boursault Roses 339
Climbing Rose sports 339
Roses in towns .. 339
Two perpetual-flowering climbers 339
GARDENING FOR BEGINNERS
Garden work week by week 340
Increasing the Hydrangeas 340
Grapes: Treatment when berries are colouring 341
Bending down Onions 341
Hints on growing Turnips 341
THE TOWN GARDEN 341
GREENHOUSE
Potting show and fancy Pelargoniums 342
ANSWERS TO CORRESPONDENTS
Trees and shrubs .. 342
Greenhouse 342
Miscellaneous.. .. 343
Editor's Table 343
SOCIETIES 344

ILLUSTRATIONS.

The new Iris albopurpurea colchesterense 336
Iris Fulvala 337
The pink-flowered Broom in a Lancashire garden .. 338
The pink double-flowered Daisy Alice 339
How to propagate Hydrangeas 340, 341

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE WOBURN EXPERIMENTS.

ON June 23, thanks to a special invitation from His Grace the Duke of Bedford, through Mr. Spencer Pickering, F.R.S., Director of the Woburn Experimental Farm, a number of the council of the Royal Horticultural Society and some of the committee visited the farm near Ridgmont Station, and subsequently were entertained at lunch at Woburn Abbey. The day was somewhat showery, but not sufficiently so to detract at all from the enjoyment and interest which the innumerable experiments evoked. Unfortunately, the programme of the day did not embrace the zoological interest of Woburn, but in the beautiful drive from Ridgmont, whence the visitors were conveyed in open carriages to Woburn Abbey, the appearance of yaks, gnus, camels, bisons and other exotic beasts entirely in the open and intermingled with innumerable deer, and birds of many kinds, caused considerable astonishment to those who were unprepared for the experience. With respect to the experiments themselves, those connected with fruit trees and orchard culture generally were singled out for remark, and as the visitors proceeded from place to place Mr. Pickering explained the difference in culture and also the object in view, pointing out at the same time that in many cases where the experts present would find fault with results they could only do so when forgetting the purely experimental nature of the trials, many of which were directed to ascertain under what detrimental conditions any proportion of success could be attained. As a pamphlet has been issued summarising results up to May, 1910, a good deal of the work of the visitors and of their guide was to confirm these by ocular inspection and to interrogate regarding uncited points and reasons; and perhaps the three most interesting results, and those most clearly brought out and confirmed, were, first, that the ordinary idea of careful planting in a spacious hole in which the roots can be outspread, fine soil being then sifted in between them, and so on, involves both loss of time and labour and produces inferior results to what is ordinarily regarded as slovenly planting, the roots being rammed anyhow into a small hole with no regard at all to the proper arrangement of fibres. Rows of trees were shown side by side for comparison, and the rough-and-ready system quite eclipsed the careful and systematic one as regarded subsequent growth and health, a difference which Mr. Pickering imputed entirely to hard ramming down of the soil, the close contact inducing much more vigorous growth of new root-fibres. The second point demonstrated was the apparently toxic effect of grass, especially when sown so as to form an unbroken surface covering.

All the experiments showed that as a result the trees dwindled, and even died right out, when planted out young and then sown round with grass; while the third unexpected point was that manure, artificial or other, was simply thrown away on orchard trees, that is, Apples and Pears, the crops from unmanured ground being fully equal to those yielded by the heavily treated soils, though manuring was essential for successful culture of bush fruits. To these three points may be added a fourth, the non-necessity of pruning, though the thinning down of abundant crops to two on a twig was necessary to obtain fine quality fruits, otherwise unpruned trees appeared fully capable of taking care of themselves on natural lines. Naturally, among such a body as were thus drawn together considerable diversity of opinion was manifested. The soil at Ridgmont is mainly heavy, and would, in the opinion of several, require an immense amount of opening material to make it at all congenial for orchard culture, and, unfortunately, the fruit crops generally are so short this year that only very poor results as regards bearing could be observed. No one, however, could fail to admire the thoroughness with which Mr. Pickering recorded his observations and the systematic way in which every plant was followed up and registered, so that in the end the points of advantage and disadvantage could be marshalled together as a guide to the best and most economical procedure. After the luncheon a very hearty vote of thanks to His Grace the Duke for his hospitality was succeeded by another to Mr. Pickering for his initiation and superintendence of the meeting generally.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 12.—Wolverhampton Floral Fete (three days). National Sweet Pea Society's Exhibition, Horticultural Hall, Vincent Square, Westminster (two days). Hemel Hempstead Rose and Sweet Pea Show. South Notts Horticultural Society's Show (two days).

July 14.—National Sweet Pea Society's Outing to Guildford.

July 15.—National Sweet Pea Society's Outing to Kelvedon.

July 16.—Wood Green Horticultural Society's Show.

North Lonsdale Rose Society.—This is one of the most flourishing Rose societies in the North, and the annual exhibition is this year fixed for the 22nd inst. at Ulverston. In addition to numerous classes for Roses there are a great many for Sweet Peas, valuable prizes being offered in each section. Copies of the schedule can be obtained from the hon. secretary, Mr. F. J. Harrison, Ulverston.

Ten thousand Malmaison Carnation flowers.—All who are interested in this beautiful race of Carnations should make a point of visiting the nurseries of Messrs. Stuart Low and Co., Bush Hill Park, near Enfield. We were there last week, and were greatly charmed with the magnificent display of flowering plants. A house measuring 200 feet by 75 feet is filled with Malmaisons, many of which are choice sorts, and the firm will be pleased to allow anyone interested in them to see the display. It is estimated that quite 10,000 blooms are open. The nurseries are easily reached from Liverpool Street Station, trains leaving there for Bush Hill Park about every fifteen minutes.

The prospective fruit crops. — While throughout the country generally it will be found when the fruit crops are reported upon that they are very partial, and, so far as tree fruit and Black Currants are concerned, are much below the average, yet there will be cases in which from one garden will come good reports as to Apples, Plums or Peaches on outside walls, these will be the exception and not the rule. I was lately in a North Hampshire garden, in which there were very good crops of Apples on bush trees, but no other tree fruit. In another garden the wall Plum trees, all of great size and in fine condition, were quite heavily laden with fruit. Yet in another garden a few miles away, and where Plum trees were numerous on walls, there was scarcely any fruit. I have heard of Peaches on outside walls as a good crop, but generally trees elsewhere are bare. We are suffering this season in our fruit produce from two causes—first, last season's failure to well mature wood and fruit-buds, hence a great deficiency of pollen; and, secondly, the disastrously cold weather and sharp frosts which prevailed in the spring. Which of these influences was most harmful it would be difficult to say.—A. D.

David Thomson Memorial Fund.—It having been decided to close this fund on July 16 next, those who are still desirous of subscribing are requested to send their contributions before that date to either of the following: Harry J. Veitch, V.M.H. (Treasurer of the Gardeners' Royal Benevolent Institution), Royal Exotic Nursery, Chelsea, S.W.; James Whytock (President of the Scottish Horticultural Association), The Gardens, Dalkeith Palace, N.B.; J. W. McHattie (Vice-President of the Royal Caledonian Horticultural Society), Public Parks Office (City Chambers), Edinburgh; George Monro, V.M.H., Covent Garden Market, London, W.C.; J. H. Goodacre, V.M.H., The Gardens, Elvaston Castle, Derby; or W. Henderson, The Gardens, Balbirnie, Markinch, N.B.

Japanese gardens and horticultural exhibits at the Japan-British Exhibition.—In order to express British appreciation of Japanese horticulture, the president and council of the Royal Horticultural Society have awarded a number of silver cups to exhibits by Japanese gardeners at the exhibition, as follows: To Mr. Keijiro Ozawa, Tokyo, for the design of the "Garden of Peace" and the "Garden of the Floating Islands"; to Mr. Hannosuke Izawa, Tokyo, for the construction of the "Garden of Peace" and the "Garden of the Floating Islands"; to the Tokio Yen, Sheiba Park, Tokyo, for the design and construction of two miniature gardens; to the Yokohama Nursery Company, Yokohama, for a collection of dwarf trees in pots; to the Yokohama Nursery Company, Yokohama, for a specimen dwarf tree (Thuja obtusa, golden variety, 125 years old); to Mr. S. Hayashi, Kioto, for a pair of bronze garden lamps; to Mr. Senker Agawa, Kioto, for an imitation dwarf Pine, used in ceremonies; to Nippon Yusen Kaisha, for a garden of artificial flowers; and to the Girls' Technical School, Tokyo, for an arrangement of artificial flowers. All the leading Japanese horticulturists were also invited to the luncheon at the Holland House Show on Wednesday last.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Some reflections.—I venture to draw your attention to the following paragraph in Baroness von Hutton's novel, "The Lordship of 'Love." On page 262 I read with amazement: "In the afternoon heat the flowers gave out their drowsy scents as they drooped a little on their stalks. The China Asters and the Pæonies alone seemed not to mind the heat, but the Wallflowers drooped, the Lilies looked delicate and pale, the Carnations top-heavy and sleepy"! On another page I read of "May trees still lovely—the Narcissi and Jonquils filled the grass, while Crimson Ramblers on the north end of the house were already bursting into bloom"! All this in an English garden. I could wish our lady novelists were regular subscribers to THE GARDEN.—M. D.

Town or street trees.—Amid the variety of trees recommended for planting in town streets, very few persons seem to have recommended the erect-growing Lombardy Poplar, yet it will thrive just as well in towns as most other trees. Beyond beheading it when some 20 feet in height, it practically needs no other hard cutting or pruning. I do not think there is any other tree, flowering or foliage, which will not in time need some hard cutting in. Even the mop-headed Robinia bessoniana, which, on the late Mr. A. F. Barron's advice, was planted in Sutton Court Road, Chiswick, many years ago, had to be occasionally lopped to keep their heads in check. No doubt many readers would smile at the suggestion that the Gingko or Salisburia would make a good town tree, or that Bird Cherries and Mountain Ash would do also. Recommending those are flights of the imagination. Thorns make good town trees, so also do Laburnums; but these, though not strong growers, would need occasional hard lopping to keep the heads in bounds. The reputation of the Lime as a town tree has suffered, because almost exclusively the common or europæa variety, with its tendency to exude sap to attract insects and dirt, has been planted. But there are other Limes having no such failing which are much less coarse-habited. We have here in Kingston a pair of trees of, I think, Tilia cordata of a somewhat weeping habit, having thick, round, leathery foliage and very clean bark, which retain their fine green foliage to the very last and never suffer from insect attacks or dirt. These seem to be quite ideal town trees. It is the misfortune of the Plane, grand a tree as it is when seen in its noblest proportions, that it grows so large, and for that reason can be endured in towns only when severely lopped each year, thus making its head for a long time resemble a scarecrow. But, after all, much of our tree planting in towns has been absurd, because placed in streets far too narrow and where all possible light and air are needed.—A. D.

Hidalgoa Wercklei.—Ten years ago, when this near relative of the Dahlia family was generally distributed, great anticipations were indulged in as to its future. It can, however, hardly be said that this Hidalgoa has fulfilled its early promise; in fact, it has in many instances proved most disappointing. It is a vigorous climber, which rapidly mounts upwards by twisting the petiole of the leaf around any available support. The flowers, which are about 2½ inches in diameter, are exactly like those of a single Dahlia, and are bright vermilion in colour. When it was first introduced, a specimen of this Hidalgoa came under my notice in the greenhouse at Kew, flowering profusely, and I thought what a beautiful plant it was; but now the general complaint is that the flowers are far too scarce for it to be of much value, while unless attended to almost daily it gets into a regular tangle. It is also very liable to be attacked by aphides or green fly. This Hidalgoa was discovered by M. Carl Werckle on a mountain in Costa Rica in 1898, and was distributed in the following year by Mr. J. L. Childs of New York under the name of Childsia Wercklei; but when the plant flowered at Kew it was referred to the genus Hidalgoa.—H. P.

The degeneration of the Potato.—A great deal has been written lately on the Potato, but few writers have considered this question, which has not received the prominence it deserves. If one mentions Potatoes nowadays to those not concerned in their culture—and by this I mean the consumer—it is usually to meet with the retort, "We do not get the fine Potatoes now such as we had twenty years ago." To those concerned in the culture of the tuber the truth of this is obvious in more ways than one, and it is apparent that consumers are not satisfied with a great many tubers now placed on the market. This, then, is one hint to growers that the Potato is not progressing, but it is also necessary to point out some signs now present in the cultivation of them that call for serious attention, not only from growers, but from raisers of new varieties. An evil has arisen of recent years which is causing heavy losses to growers at home and abroad, and this is the trouble caused by the non-sprouting of the sets used for the purpose of reproduction. This has been very prevalent, and investigations made by competent authorities prove the absence of any specific disease, but would seem to indicate that the sexual, or vegetative, methods of reproduction followed by growers is largely responsible for the trouble. A retrospect of the Potato for thirty years favours this hypothesis, which is a most reasonable one. The varieties on the market thirty years ago are now practically done, and this period was at one time about the useful duration of any particular kind; but with the newer and more expensive sorts put into commerce of recent years, ten to twelve years may be looked upon as the average useful life, owing to the rapid methods of propagation often employed. In several of the newer kinds there is an absence of a substance

called "diastose," this being a ferment which reduces the starchy matter in the cells of the tuber to a solution of liquid sugar, which, through the fibro-vascular system therein feeds the growing shoots until they obtain nourishment from the soil through the young roots they subsequently develop. The absence of this ferment and the retardation of the development of the fibro-vascular system of the tuber is almost wholly confined to varieties whose characteristics are the shallow eye and smooth, clean skin. Now the shallow eye and the smooth skin are demanded by the consumer as essential points in a good cooking Potato, and other kinds are looked upon with disfavour by the cook; consequently, deep-eyed and coarse-skinned varieties are unsaleable in a great measure. While the question of the shallow eye and smooth skin being an improvement is a debatable one from the culinary standpoint, its acquisition, as already noted, has resulted in serious loss to the tuber itself, and is one of the causes of degeneration. Thirty years ago the seed-pods or "apples" of the Potato were very common objects in field and garden; to-day they are rarely seen. A decade ago the blossom was very prolific, and it is now very sparse. Some kinds do not produce any, and in many flowers the paucity of pollen is a dangerous and significant factor. A great deal of pollen is also sterile and, therefore, useless for breeding purposes. It has been proved that long periods of reproduction by vegetative methods has resulted, in certain cases of some plants, in complete sterility; and the question is this, Is the Potato to be classed very soon in this category? Unless very radical measures are adopted by raisers it seems not unlikely, for in the case of seedling Potatoes the parents must, in some cases, be closely related, and Darwin has shown (in his "Origin of Species," Chapter IV.) that in the experience of breeders of animals and cultivators of plants, breeding in and in diminishes the strength and productiveness of the offspring. Some of the older varieties of Potatoes are far better resisters of disease than those of more recent introduction, and this also tends to strengthen the argument here put forth. The writer knows one variety which is absolutely immune to all disease, and can trace it back as far as 1745. Its appearance, however, together with its poor cropping powers, render it unfit for market or for table, although it is a perfect cooker, provided the skin is retained until it is boiled. The Potato can be greatly improved by scientific hybridisation, and there is important work before raisers yet, notwithstanding the good already done. Every effort must be made to avoid consanguinity, retaining, of course, old vigorous varieties as parents, if possible combining disease-resisting powers with good cooking properties, and those sorts are in existence, but their capabilities of yielding pollen or seed is another matter. A chance seedling whose parentage on the pollen side is a speculative matter is worse than useless, and is possibly—in fact, it is extremely likely—only from a self-fertilised flower, as the Potato is not adapted to cross-fertilisation by bees or insects. There are several very fine-coloured skinned Potatoes in existence, but they are little used by the consuming public, for the seller finds difficulty in disposing of them; but consumers miss a great treat through this neglect. Some raisers are endeavouring to secure a cross between Solanum Commersonii and the Potato, but the wisdom of this may be questioned, as the former has been proved unable to resist disease in those islands, and its edible qualities are very doubtful. New blood is very desirable and very necessary, but by all means let the parents be perfect in all respects; at least, as near perfection as we can have them.—GEORGE M. TAYLOR, *Mid-Lothian.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

VINES.—Maintain a moist atmosphere in houses where Grapes are swelling. Usually at this season of the year no fire-heat is necessary in the daytime unless the weather is wet or very dull. Fire-heat will still be required at night to keep up the temperature, and close attention must be paid to early ventilation to prevent scalding. Water outside and inside borders before they get dry.

Peaches and Nectarines.—Syringe freely all trees on which fruits are swelling, tie in shoots as they require it, and pinch out the side growths. The fruits should be exposed to the light to ensure good flavour and colour.

Cucumbers.—Sow the Telegraph variety for late supply. The house from which the early crop has been cleared should be thoroughly cleansed and a fresh bed of heating material put in.

FLOWER GARDEN.

Sweet Peas.—These should receive a good mulching to help to keep in the moisture. During dry weather plenty of water will be required, bearing in mind that owing to the thick foliage it takes a lot of rain to get to the roots. All shoots should be tied back immediately they fall away from the sticks or whatever kind of support is used. Do not allow seed-pods to form; the stems may be cut off as soon as the flowers fade. If green fly is troublesome, a light syringing in the evening with quassia extract will usually stop it. Green fly may be detected by the number of sparrows that will be seen among the Peas.

Dahlias.—If exhibition flowers are required, thin the growths, only allowing about six to each plant. The growths should be staked out separately to allow free access of light and air. Disbudding will have to be done when the buds appear. Of course, if specimen flowers are not wanted, there will be no need for such severe thinning or disbudding. The plants should have a liberal mulching and not be allowed to get dry.

Summer-flowering Chrysanthemums. — These should be given some support. A good plan is to put a stake in the middle of the plant and loop all growths to it.

KITCHEN GARDEN.

Runner Beans.—Keep these well watered during dry weather. If they are allowed to get too dry the flowers fail to set and drop off. They should have a liberal mulching of stable litter, and those plants that are in bearing may be assisted with liquid manure occasionally. During wet weather use artificial manure.

ROCK GARDEN.

Seasonable Notes.—Abundance of water will be required during dry weather. The water must be sprayed finely to prevent washing. Clean all plants as soon as the flowers are over and top-dress any that require it. A small quantity of soil should always be kept in readiness. It is not difficult to have a few boxes filled up with the various mixtures required for the different plants. These can be placed on one side ready to hand when required, and the plants are not so liable to get overlooked as when the soil has to be mixed when wanted. Continue with the propagation both by cuttings and seeds. It is essential to maintain a good stock to fall back upon next spring.

E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

CABBAGE.—In the late districts seed should be sown at once to produce good strong plants for setting out towards the end of August. In the early localities sowing may be deferred for a fortnight, but it is better to be rather early than too late. With the fine varieties now to be had there is little fear of bolting in spring. After many trials of the various sorts usually recommended for autumn planting, I have for various reasons discarded all but one—Sutton's Flower of Spring. For seven years I have grown this sterling sort, and always with the greatest satisfaction. Never more than 3 per cent. bolt. Last year not a single plant did so, and this season only one.

Kidney Beans.—In the more favoured districts a row or two may yet be sown on an early border. These often produce a dish or two of fine tender pods late in the season, and, being sown on a border, it is easy to protect with a few mats when early autumn frosts threaten. The earlier sowings must not be neglected in the way of water, for although these Dwarf Beans delight in bright sunshine, dryness at the root will shorten the crop besides ruining the quality.

FLOWER GARDEN.

General Work.—Staking and tying of Dahlias, Hollyhocks and other tall-growing plants must have constant attention, or one night's heavy rain or wind may undo weeks of care and labour. Verbenas, Phlox Drummondii, Petunias and others of the semi-creepers may require a little regulating and pegging down.

Wallflowers.—The plants should now be ready for pricking off into lines. This is best done during dull, showery weather, as the Wallflower flags seriously in bright sunshine. Where this favourite flower is grown only for cutting, it is wise to determine now where they are to bloom.

FRUIT GARDEN.

Strawberries.—Where Strawberries are forced it is time that layering into small pots be seen to. The best results are usually had if the layers are obtained from young plants that are carrying no crop this season. Fill 3-inch pots with good free compost and plunge them between the rows. Securely peg a healthy runner into each pot, see that the soil is never allowed to get dry, and very soon plenty of roots will be formed and the runner can be cut loose and the pots lifted if desired. Some prefer to leave the pots in the ground until they are ready to shift into the size in which they are to fruit. Where time will permit, this layering into pots can with advantage be practised on plants for outdoor culture, and a very fine return will be had the first summer after planting.

PLANTS UNDER GLASS.

Begonia Gloire de Lorraine.—The staking of these should be attended to in good time, for, if allowed to get bent over, there is considerable difficulty in inducing the shoots to grow in the proper direction, and so less shapely plants will result. If only small plants are desired, one strong, neat stake in the centre is sufficient, the shoots being neatly and loosely looped to this. Large plants require a number of very thin green-painted stakes of a suitable length. Bamboo tips make very good stakes, although rather conspicuous at first. Beautiful as this plant is when staked out, it is perhaps in a basket that its full beauty is shown. Old plants in 6-inch or 7-inch pots suspended in a warm house and well supplied with water and liquid nourishment will make a glorious show during the winter months. C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

INTERESTING PLANTS AT LIVERPOOL BOTANIC GARDENS.

THOUGH the city of Liverpool is much brighter and cleaner than is generally supposed, there is no doubt that it is a most unfavourable place for the cultivation of high-class plants. The atmosphere is charged with gases of various kinds from the numerous works situated on the outskirts of the city, and the interesting and beautiful botanic gardens are in one of the worst positions owing to the proximity of the London and North Western Railway Company's goods station, where numerous engines are belching forth volumes of sulphurous fumes day and night. Indeed, these botanic gardens may be regarded as an excellent example of town gardening under exceedingly difficult conditions, and for that reason some information regarding the plants that do well there should be of interest and use to others who have to "garden" under similar conditions.

During the past four years the whole aspect of the place, both under glass and in the open, has been considerably improved under the management of the assistant-curator, Mr. W. Hackett, who has introduced very largely the excellent cultural systems adopted at Kew. Of course, it is necessary to grow only those plants in quantity that are found to do well there, and at the time of our visit the most gorgeous display was formed by a wonderful bank of Gloxinias. Imagine a house 120 feet long, with a tiered stage 4 feet 6 inches wide on one side, and this stage filled with over 300 large flowering plants of Gloxinias, and then you have a faint idea of the scene. The variety principally grown is Aigburth Scarlet, a beautiful scarlet-crimson flower that stands on erect stems well above the foliage. Many of the plants were in 8-inch pots and formed veritable bouquets of blossoms.

Fuchsias and Cannas were thriving in wonderful style. Among the last-named we saw some very beautiful varieties, those named President Meyer, rich scarlet self; Miss Kate Gray, very large orange self; Austria, bright canary yellow; and Hermon Wendland, yellow and scarlet, appealing especially to us. Nicotiana Sanderæ is another plant that does exceedingly well in a cool glass house at Liverpool, providing a display of flowers for at least three months of the year. We noticed some huge plants in 10-inch pots that had been in bloom for two months, and they were creating a picture of rare beauty at the back of a wide stage. Several good Tree Ferns were to be seen, among them being a remarkably fine specimen of Alsophila pruinata, a very rare species indeed. Davallia hirta cristata was another Fern that we found growing well, Mr. Hackett having several fine specimens, the largest 8 feet in diameter. Climbing up the roof supports of a cool house was a fine specimen of the new pale yellow-flowered Honeysuckle, Lonicera etrusca superba. Though not quite in flower at the time of our visit, the long, vigorous shoots gave promise of a rich display a little later, the slightly glaucous foliage giving the plant quite a distinct and pleasing appearance.

Among those plants which require warmer treatment were some of the finest examples of the scarlet-flowered Clerodendron fallax we have ever seen. These were two year old specimens in 10-inch pots, the growths made last year having been cut down nearly level with the soil this spring. Intermixed with these were grand plants of Acalypha hispida (Sanderii), the long, pendulous, crimson inflorescences of which made a picture of rare beauty. At one end of the house several plants of the fine-foliaged Anthurium Veitchii were arranged, forming a fine bank containing about eighty leaves, some of the leaves measuring nearly 4 feet in length. Other species of Anthuriums are also well grown, especially A. Brownii.

Of course, a botanic garden must contain a collection of the most popular economic plants, and many of these are doing well at Liverpool. One of the most interesting that we saw was the Cow Tree or Milk Tree of Venezuela (Brosimum Galactodendron). This is exceedingly rare in this country, but in Venezuela the natives are said to obtain milk from it. The plant at Liverpool is a healthy-looking specimen. Coffee, Cocoa, Quinine, Vanilla, fruiting Bananas and species of Rubber Trees were other interesting plants noted in this section.

A rare insectivorous plant that Mr. Hackett manages to grow extremely well under bell-glasses on a cool shelf in the Odontoglossum House is Cephalotus follicularis, a most charming little plant resembling to some extent a very dwarf Sarracenia. The Venus's Fly-trap (Dionæa muscipula) also thrives under these cool conditions, and instead of importing plants annually, as is usually done, these are grown on year after year. We also noticed a small plant or two of the true Telegraph Plant (Desmodium gyrans), the leaflets of which are exceedingly sensitive. The Lattice-leaved Plant (Ouvirandra fenestralis) is an aquatic of rare beauty when well grown, and we have never seen a better specimen than the one we found in these gardens. It had over forty perfect leaves, many of which were 1 foot long.

The cool Fern House is a very beautiful place in which to spend an hour or two during a hot day. The plants are arranged among raised rockwork, waterfalls and fountains, giving the whole place a delightfully cool and refreshing appearance. That noble Filmy Fern, Todea superba, was doing remarkably well, the largest plant measuring about 4 feet in diameter. This, Woodwardia radicans and others of similar hardiness Mr. Hackett assured us frequently get frozen in winter, as the house is unheated, and evidently they can withstand more cold than is usually considered to be the case. Hippeastrums are grown on a very extensive scale, and make excellent town plants. Something like 2,000 bulbs are flowered each year, and seedlings are continually coming on. The collections of Orchids are also good. Dendrobiums, Miltonias, Lælias, Sobralias, Calanthe Regnieri, Cœlogynes, Cypripediums, Cattleyas and Odontoglossums are grown in quantity so as to provide a wealth of flowers in their respective seasons.

In the outdoor garden bright bedding is a great feature; Violas, Calceolarias, Zonal Pelargoniums, Marguerites, Gazanias, Alyssum, Lobelia cardinalis Queen Victoria, Willow-leaved Beet and Iresines are used in large quantities. Carpet bedding is practised to the extent of nine large beds, this form of bedding being very popular in Liverpool. The herbaceous borders, too, are well stocked, as are the shrubberies, that fine old Holly, Ilex Hodginsii, doing splendidly. Chrysanthemums are a great feature in the months of October and November, 2,000 plants being grown, the collection being kept well up to date. Considering the circumstances under which the work has to be done we think the citizens of Liverpool have just cause to be proud of their botanic gardens, where a lover of plant-life may spend many very interesting hours.

THE NEW IRIS ALBOPURPUREA COLCHESTERENSE.
(About three-fourths natural size.)

THE FRUIT GARDEN.

NOTES ON MORELLO CHERRIES.

THE Morello Cherry, like the Peach, bears fruit mostly on the previous year's wood, therefore when summer pruning and training plenty of shoots should be preserved and tied to the wires, or neatly secured to the walls with some soft material. It is not unusual to meet with healthy trees that, from want of timely attention during the growing season, have been practically spoiled both from a fruiting and training point of view. A good Morello tree trained fan-shape should be clothed with a succession of young fruitful wood from the bottom to the top. We generally go over our trees at this season of the year and remove any useless growth, others we spur back to within a few buds of the older wood, and train the new shoots as may be required to fill up space and to replace older worn-out branches during the winter pruning. Morellos may be successfully produced on bush trees in some parts, but generally the trees occupy a position on a north wall, where many other kinds of fruit would not succeed. Given reasonable treatment, it is marvellous how freely they crop. I mention this because where amateurs appreciate this kind of fruit more might be done in the way of planting young ones at the proper time and training them on walls or fences which otherwise would be allowed to remain bare. Good, sweet loam, with plenty of old brick mortar and a good sprinkling of bone-meal will, if well mixed together, suit the growth of the Cherry. Other essentials are good drainage, a firm soil at planting-time, the roots in dry weather well supplied with moisture and the foliage kept clean and free from insects. In some seasons the black aphis is troublesome, and if not checked quickly spreads all over the trees. To get rid of this pest I have found nothing better than tobacco water, quassia extract, &c., if properly applied. Insecticides should not be used after the stoning period, and even then the trees should be thoroughly syringed to cleanse the fruit of any disagreeable taste and disfigurements left behind from the insecticide. A few good washings with clean, soft water slightly warmed will, as a rule, have the desired effect.

H. MARKHAM.

Wrotham Park Gardens, Barnet.

THE FLOWER GARDEN.

TWO BEAUTIFUL NEW IRISES.

ONE of the most interesting features at the meeting of the Royal Horticultural Society on June 21 consisted of the Irises, and two exquisite kinds each received an award of merit. We have previously described these gems, but reproduce our remarks.

Iris albopurpurea colchesterense.—The varietal name here given distinguishes a very beautiful and highly ornamental plant from the species described some years ago in the *Botanical Magazine*, the present plant having been received from a distinct source under the specific name. In many ways the plant is a great beauty, indeed, well-nigh unique, and for water-side gardening or those moister spots in the garden in which so many plants delight will be found a great gain. The long, ovate falls are of deep violet blue, with white base, and irregularly bordered white. The long, erect and narrow standards are bluish white and slightly waved at the margin. It is a plant of distinction and great merit, for which any description would prove inadequate. This was shown by Messrs. R. W. Wallace and Co., Colchester.

Iris Fulvala (I. fulva × I. hexagona Lemancei).—A very beautiful and interesting hybrid of nearly uniform purplish colouring. The branching character of the hybrid is also distinct, the newcomer being of a decidedly artistic bearing. This was exhibited by an Iris raiser and enthusiast, W. R. Dykes, Esq., Charterhouse, Godalming.

THE DOUBLE-FLOWERED DAISY ALICE.

ALTHOUGH Daisies date back, perhaps, further than most cultivated flowers, they appear to be fast rising in popular favour, which is not surprising, for they have been greatly improved in size and quality of late, and we now have Daisies with stems 6 inches and more in length, and with blossoms as large and full as those of a small Aster. In Gerard's catalogue, published more than 300 years ago, severa kinds are mentioned, and before that time the Hen-and-Chickens variety was in existence. This is still a favourite in cottage gardens, where numbers of it may be seen adorning the borders. The common Daisy, pretty though it is, is very troublesome on lawns, and requires some perseverance to rid turf of its presence. This, however, does not detract from the value of the cultivated varieties, which are indispensable for the decoration of gardens in the spring, as they are among the first things to bloom and continue in full beauty until quite late in the season. They have a pretty effect when used in combination with Forget-me-nots and common Primroses. Besides Forget-me-nots and Primroses there are many other plants that may be used with Daisies, among which some of the best are the blue, white and yellow Tufted Pansies, the Silene and white Arabis as they are dwarf and afford the requisite contrast of colour.

For Daisies to be strong and to have good, well-developed crowns, on which their flowering freely depends, they must be well managed and cared for in summer as every bloom has to be formed during that season. To enable plants to carry out this important part of their work they must have good quarters to grow in, the best situation being where they can enjoy shade during the heat of the day and in a site where water is near. A north border under a wall answers well. Before planting, the ground should be heavily manured and deeply dug. When the plants are divided they may be put in in rows 9 inches apart, when they will immediately start to grow away. In hot, dry districts Daisies suffer considerably from the heat during the summer, as the drought is very trying to these moisture-loving plants, and the difference observable in the same kind of plant growing in close proximity in the same soil, but one exposed to the full rays of the sun and the other shaded, is very remarkable, inasmuch as the fully exposed plants cease flowering and the foliage looks rusty and dying, while those shaded are a mass of flower and luxuriant foliage. Therefore, in selecting summer quarters for plants of this class we should make

IRIS FULVALA. (*About two-thirds natural size.*)

shade from the direct rays of the sun a point of the first importance, for, although such plants do revive on the return of moist weather, it is difficult to understand how they can be benefited by the defoliation to which they are subjected. Daisies, Primroses and similar plants in the South of England are undoubtedly benefited by partial shade during the hottest months of the year, and those who grow them for filling spring flower-beds should bestow on them special care, for the transplanting will have left them in a condition to be easily affected by drought.

No other plants used in connection with spring gardening give such a long season of bloom as Daisies. The ease with which they can be propagated and their free-blooming habit have led to their extensive use. There should be two periods of planting for double Daisies—in October, when they are put out in the spring beds, and at the end of May or early in June. Then the plants should be divided and put out in a cool, shady place to grow into size by the autumn, planting deeply and treading them firmly in the soil. If neglected during the summer the plants soon suffer. The prettiest of all the double Daisies is undoubtedly Alice, the subject of the illustration on page 339, the quilled petals being of an exquisite salmon pink colour. Frequent division is the secret of success, for undivided plants soon die out.

WYNDHAM FITZHERBERT.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

ASPARAGUS BEDS.—Cutting in these will now have ceased for the season, and it is excellent practice to give the plants some attention. It is apparently supposed by some growers that weeds are beneficial when they grow luxuriantly among the Asparagus—at least, so one would judge by the condition of many plantations—but this is, of course, quite an error. Weeds will rob these plants of food just as they will any other crop in the garden, and the man who allows them to grow may rest assured that his legitimate crops will never attain to perfection, for the simple reason that they will not get enough food. Let, then, all weeds be immediately removed, and if it is possible to do so, thoroughly soak the bed first with water and then with liquid manure, or, should not the latter be available, procure a good concentrated fertiliser and apply in accordance with the maker's directions. These simple things will substantially assist the plants to make splendid growth, and if this is permitted to die down naturally and is not cut away until it is yellow in the autumn, the crowns will be greatly strengthened for next year.

SPRING CABBAGE.—This is one of the most important of all the crops in the vegetable garden, and no efforts must be spared to grow a satisfactory bed. About the middle of this month, earlier or later according to the climate of the district, a sowing of seeds should be made on a specially prepared bed the soil of which has had a little refuse manure or leaf-mould mixed with it and has later been made firm and level. Having in view, however, the importance of the crop, the careful cultivator rarely relies upon one sowing, but makes a second under similar conditions about three weeks later, and from one or other it is almost absolutely certain that he will secure excellent plants that will stand through the winter. It is imperative that the seedlings shall be thinned regularly, commencing so early that it is impossible for them to become in the slightest degree drawn. It is also wise occasionally to dust them over when they are damp, either from dew or rain, with a mixture of soot and wood-ashes as well to encourage growth as to check possible trouble with the flea-beetle. Two reliable standard varieties for this purpose are Ellam's Early and Sutton's Flower of Spring.

HARVESTING SHALLOTS.—These should be harvested immediately they are ripe. When they are practically ready to come out they ought to be carefully loosened in their positions, since this will assist them to finish more quickly and ripen better. In a few days they can be removed from the bed, which will probably be urgently required for some other crop, to a dry walk, and very shortly after that they may be placed in the store.

PARSLEY.—The demand for Parsley in all households is incessant, and it is an error not to make real efforts to meet it. In the summer and autumn supplies are, as a rule, abundant; but in some gardens there comes a complete stoppage in the winter. This ought not to be, for seeds sown within the next few days should yield plants that will stand perfectly well and give invaluable pickings. The soil must be properly prepared by deep and thorough digging, and if it is on the poor side, then some rotten manure must be dug into the lower spit. Make the surface soil fine and firm, and distribute the seeds thinly. Commence to thin early, so that all progress is made under the influence of unobstructed light and fresh air.

THE PINK-FLOWERED BROOM OF NEW ZEALAND IN A LANCASHIRE GARDEN.

WINTER GREENS.—As ground falls vacant during the present and next months it must be at once prepared for the reception of the winter greens. With the single exception of Broccoli, which safely to stand the winter must be grown on a firm soil, all sites for these plants must be deeply worked and contain an ample supply of readily available food. The chances are that the land will be dry when the planting has to be done, and, if this is the case, it is most important that it shall be heavily watered the evening before the work is to be put in hand, as it is decidedly prejudicial to success to set the roots in absolutely dry soil. In all instances the roots of the plants must be examined for galls, and if any are found, let them be pinched off and the roots drawn through a puddle of mud and soot. H. J.

TREES AND SHRUBS

THE PINK BROOM OF NEW ZEALAND.

I SEND a photograph to show that Notospartium Carmichaelæ is hardier than is usually thought. This house is geographically in Lancashire, but we are only about two miles from Ambleside. I have a bush of the Notospartium which has lived for many years, sheltered, it is true, by a wall and a Rhododendron bush, which every summer is covered with flower. The plant stood the past very trying winter quite successfully, and will flower soon, but two smaller bushes in the open have been badly damaged.

Ambleside. A. M.

CLEMATIS ALPINA.

APART from C. calycina, the Balearic Island species which blooms in midwinter, this is the earliest Clematis to open its blossoms, and it frequently happens that it is in full bloom by mid-April. It belongs to the group of the genus which produces petals in addition to the showy sepals for which the family is noted, and which have been by some botanists placed in a distinct genus called Atragene. Figures of the plant, in fact, appear in two places in the *Botanical Magazine* under the respective names of Atragene alpina and A. sibirica, tt. 530 and 1951. Under natural conditions it is found in the alpine regions of Central and Northern Europe, Siberia, &c., growing in limestone districts. It forms, when allowed to develop naturally, a tangled mass of rather fine growth clothed with finely lobed leaves. The flowers are large, being 2 inches or so across, the calyx lobes being broad at the base and tapering to an acuminate point at the apex. The colour is pale mauve, but there are forms with white and pinkish flowers. It is of good constitution and thrives in most places, especially if given lime with the soil, which should be of a loamy character. Successful results may be expected from wall culture, but an informal arrangement of the branches over an old bush, low fence or old tree butt turned root upwards is most effective. As a rule seeds are matured, which form a ready means of increase. Pruning is not necessary every year, but when it is required it should be done as soon as the flowers have fallen. A Clematis that flowers as early in the year as C. alpina possesses an unusual charm to many, and for that reason one does not hesitate to recommend its inclusion in those gardens where unusual shrubs are appreciated. W. D.

THE ROSE GARDEN.

THE BOURSAULT ROSES.

THESE are not much in demand now, the various newer ramblers having apparently somewhat eclipsed them. But they are very serviceable, more especially for their early blooming. During early June, as one passes through old-fashioned villages, the walls of cottages may often be seen covered with the variety

Amadis, or *Crimson*.—It is a showy Rose for a wall, and is also a great success as a big bush or pillar. The colour is not specially attractive; it is a sort of purplish crimson, but is, nevertheless, very pretty. A lovely variety is

Morletti, sometimes known as Inermis Morletti, and also on the Continent as Mme. Sancy de Paraleere. Upon the pergola at Miss Willmott's famous garden at Warley Place this beautiful Rose is well worth a journey to see. The lofty, detached arches are planted with all the best ramblers and other subjects, but both the uprights and across the top of one arch are thickly covered with this charming Rose, the long flower-laden branches tossing themselves about in lavish profusion. This Rose is of light rosy pink colour, little more than semi-double. The growths are thornless, as are most of the varieties of this tribe. All are early flowering.

Gracilis is a pretty bright rosy red in colour, not so vigorous as the two last named, yet strong enough for an arch. It has beautiful foliage, as is the case with all the tribe.

The Old Blush Boursault is also often seen upon old houses and arches, but I do not imagine anyone would plant it if they were acquainted with Morletti. There has recently appeared a variety named

Parkfeuer, which has beautiful single flowers of a bright rose colour and fine dark foliage; a sort that is well worthy of being planted. All the Boursaults are descendants of R. alpina, a pretty May-flowering species, and one that I think is worthy of the hybridist's notice. We cannot well have too many early flowering Roses, for the longer the Rose season can be extended the better. The small-flowered double form of R. alpina is a very free-flowering sort, and its reddish foliage makes a pretty show even when the plant has gone out of flower. P.

THE PINK DOUBLE-FLOWERED DAISY ALICE. (*See page* 337.)

CLIMBING ROSE SPORTS.

THE following few notes were suggested by the reply given to "A. C. W." on page 272. All that is said there in favour of Generals Gallieni and Schablikine, also Capitaine Millet, I can thoroughly endorse. They have been a trio of my favourites since their introduction, and no one who likes an artistically decorative Rose should miss them. I have also found the true Mme. Marie Finger more distinct from Mlle. Eugenie Verdier than many that are not bracketed by the National Rose Society.

But what I am more particularly interested about in this note is the climbing sports from some well-known varieties. I am quite certain that if we select buds from an extra strong growth of Frau Karl Druschki we should get correspondingly strong growths as the result. We find this more or less proved with the sports from Caroline Testout, La France and Mrs. W. J. Grant. These are three of the best pillar Roses grown when the climbing form is secured; but I think most growers of any quantity will endorse what I say, that when taken without careful selection we frequently get plants that revert to the normal type. It is the same with the two Teas Climbing Niphetos and Climbing Mme. de Watteville. Climbing Perle des Jardins is yet another that reverts unless the buds are carefully selected, and the same may be said of Climbing Kaiserin Augusta Victoria, and will doubtless be the case with the new Rose Climbing Lady Ashtown. This is a hint I think readers might well bear in mind when budding-time comes again.

There is one more point I would like to know if others have noticed. To my mind a good and fairly representative flower of the variety appears to come larger upon the climbers than upon the plants of normal growth. It may be only fancy on my part, but I have noticed this more particularly with the climbing form of Kaiserin A. Victoria, and attribute it to the stronger growth.

ROSES IN TOWNS.

THE schedule of prizes offered by the National Rose Society this year contains a new class for blooms grown within ten miles of Charing Cross. In the past there was a class for Roses grown within eight miles of the same centre, and some very creditable exhibits were staged. A considerable number of successful boxes came from the suburbs last year, and often Sydenham, Highgate, Finchley, Lewisham, Croydon, Norwood and other districts, that must now be styled towns, have produced winning boxes. Then there is a suburban champion class for six blooms, in which a challenge cup is offered. Now, it is perfectly obvious that if Roses fit to win prizes at the National Rose Society's exhibitions can be grown within eight miles of Charing Cross, some of the hardier garden varieties can be cultivated with even greater prospects of success, and it is a few words upon such that I wish to pen.

The first point is to secure as suitable a compost as possible. Dig over the soil to a depth of 3 feet or so and find out what it is composed of. It is surprising how suburban gardens vary and what a mixture of builder's refuse and other material is frequently discovered. Fresh loam, not necessarily turf, from the country is not expensive, and the top spit from building land not difficult to procure.

Too much attention cannot be directed towards careful selection of varieties. Those that are tender and of weakly growth, like Cleopatra, Ma Capucine and many more, are not suited for our purpose. Rather choose from those with the freedom and habit of growth found in Zepherin Drouhin, Trier, Captain Christy (a good town Rose), the Rugosas or Japanese Roses, Grüss an Teplitz, Frau Karl Druschki, Ulrich Brunner, J. B. Clark, Killarney, Mme. Lambard and the strong climbers like Crimson Rambler and Dorothy Perkins. The last are almost certain to flower well if we can grow shoots of more than 3 feet in length, as the flower-trusses are stored in all ripened eyes of the previous season.

Of course, the more light we can give the plants the better they will thrive; a damp and dark back-yard cannot produce Roses in any form. Use the syringe more freely than would be needed in the open country, as there will be a heavier deposit of dust and other impurities. Look around you and note if any special Rose is doing well in the district, and confine yourself to others of the same class. Although Roses are commonly reputed to need pure country air more than other subjects, I am convinced from the flowers I have seen they might be grown far more frequently than is the case in and near to large towns.

TWO PERPETUAL-FLOWERING CLIMBERS.

THE crimson and the white Rambler Roses are well known and much appreciated, but we now have forms of these that flower during the autumn, and this makes them more useful still. Flower of Fairfield is a perpetual-blooming sport from Crimson Rambler, and flowers upon the shorter growths made during early summer. The normal type only blooms well upon the long rods of the previous season; but the sport throws an autumn crop in addition to those from its stronger growths. Perpetual Thalia grows and flowers in the same way.

There is one point about these two sports that I fear is not sufficiently known. Neither of them grows quite so rampantly as the normal types, and so do not cover an arch or pergola so quickly. Still, they are far from being dwarf growers, and soon make a permanent climber that does not require such hard summer pruning as the types they sported from; and both are very useful because of their late flowering, which is not the case with the majority of climbers.

By planting these two Roses we prolong the season during which ramblers are flowering very considerably, and on this point alone they demand a place in our gardens. A. P.

GARDENING FOR BEGINNERS.

HOW TO PROPAGATE HYDRANGEAS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—The vegetable cultivator often finds it a very difficult matter to obtain really fine Cauliflowers at this season, especially so if the soil is shallow and of poor quality. Cultivators who are so placed should give the plants liberal supplies of manure-water frequently as well as clear water ; in fact, the soil

1.—A HYDRANGEA CUTTING PROPERLY PREPARED AND READY FOR PLANTING.

must never be allowed to get dry, and if there is any suitable material at hand, put it on as a top-dressing. Grass mown from the lawn will do, also old spent soil, but half-rotted manure mixed with leaves is the best of all. Ridge Cucumbers should be more extensively grown than they are. Very fine crops may be had from half-a-dozen plants, and the trouble in growing them is not greater than that necessary for the growth of Vegetable Marrows. At the present time the young fruits will be forming, and insects fertilise the blossoms of Ridge varieties more than those in frames, simply because thay can gain access to them more easily. It is owing to this general fertilisation that so many fruits are ill-shaped, so thick at the ends. By simply tying up the flowers directly they are open the insects cannot get inside them, and another thing that should be done is to remove all the male flowers before they open. Cucumbers growing in frames must be top-dressed at once, so as to keep up the strength of the plants. Fibrous lumpy loam should be soaked thoroughly with strong liquid manure for several hours, then partially dried and put on the bed 2 inches thick. Some well-rotted manure and a small quantity of sweet leaf-soil may be added to the loam.

Flower Garden.—It does not matter how carefully one may put out the bedding plants, some of them will fail to grow satisfactorily. Those that are failing will be readily seen at the present time, and steps must be taken to make good any gaps in consequence. The real value of a few spare plants being taken care of will now be apparent, as they can be used for filling up the gaps. Where there are no surplus plants, a judicious lifting and replanting of several specimens near the one or two that have failed would be advisable, as in this way a gap may be made up. Hollyhocks and other tall-growing subjects will require stout stakes for their support ; the flowers of the former will be open in the course of a few days, and all needful staking should be done before they develop. The Hollyhock disease works sad havoc in many gardens. Quick growth, good culture and the frequent renewal of the plants tend to preserve them from the dreaded disease to a great extent. Lower leaves that are spotted with rust must be removed and burned forthwith ; then give the plants a thorough soaking with liquid manure and put on a heavy mulch of the richest organic manure from cattle sheds that can be obtained. The first flower-spikes of Delphiniums that formed must be removed directly the flowers on them have faded ; then more spikes will grow from the base and blossom later. Though smaller than the first-formed spikes, the later ones will prove very acceptable.

Fruit Garden.—The earliest Figs to ripen will be those of the varieties Brown Turkey and White Marseilles growing on walls in sheltered positions. Birds are very fond of Figs, especially starlings, and they spoil the fruits directly one part of each commences to ripen, and the wasps complete the work of destruction. Before the birds have found out where these fruits are, cover the trees with nets, and later on, as the Figs ripen, put pieces of muslin of open mesh over each one as a guard against attacks by wasps. The fruits of the Japanese Wineberry are detached from the stalks sooner than those of any other kinds that are cultivated, and so care must be taken to make all fruit-bearing branches quite secure against strong winds.

Greenhouse and Frames.—Plants of Tree Carnations flowering in greenhouses at the present time must be protected from strong sunshine. Whiting and water with a small quantity of boiled linseed oil in it syringed on the glass will give the necessary shade. The oil prevents the colouring matter being washed off by rains. The plants will require constant feeding. Young plants growing in 3½-inch pots must be transferred to 6-inch and 7-inch pots. Fibrous loam, with some dried cow-manure and bone-meal added, forms the best material for these plants to grow in. To a bushel of the loam a 7-inch potful of sand and a 6-inch potful of old mortar rubble must be used. All these young plants should be grown in well-ventilated frames. A. A.

INCREASING THE HYDRANGEAS.

THE Hydrangeas are represented by both greenhouse and hardy flowering shrubby plants, and are much appreciated for their decorative value under glass and in the hardy flower garden. Hydrangea Hortensia and H. paniculata are the two principal species, and it is to these that the subjoined remarks more especially apply. Both species are grown in pots, H. Hortensia delighting in a compost made up of two parts good loam, one part well-rotted manure and the free admixture of coarse sand.

Generally speaking, the repotting of old plants or the potting up of young specimens from their smaller pots should be carried out in the spring, say, during February and March. In the resting period, say, from October to March, little water will be needed ; the soil should be kept just moist. In the warmer weather and as growth progresses rapidly—and this embraces a period covered from March until October—water very freely, as the vigorous roots absorb much moisture during this period. Pruning is usually done in August or September. There are several varieties of H. Hortensia, and they are mostly superior to the type. Although H. Hortensia is usually grown in greenhouses, the plant is often met with in the South of England growing in the open air in protected and warm situations, where it appears to luxuriate. In such positions it is very necessary that the soil should be well drained. The pruning consists in cutting away the shoots that have borne flowers in the past season, and when the leaves have fallen in the winter the roots should be top-dressed with some well-rotted manure.

The pot culture of H. paniculata is very similar to that prescribed for H. Hortensia, soil, position and watering during growth being almost identical. From October to March the soil should be kept almost dry. As soon as the flowering season has concluded, stand the plants outdoors, selecting a sunny position, and leave them there until November, after which remove indoors to a cool glass structure. When the plants begin to develop their flowers, liquid manure should be applied in a weak state and at frequeut intervals. The pruning of H. paniculata in pots should be done in January or February, and this is carried into effect by cutting back the shoots of the previous year to within 1 inch of their base.

To grow H. paniculata satisfactorily outdoors, a partially shaded position should, if possible, be secured. Here the quarters must be well drained, and the most suitable soil in which to plant this

2.—THE CUTTING INSERTED IN A SMALL POT CONTAINING SANDY SOIL.

species is two parts good loam, one part well-decayed cow-manure, and sufficient coarse sand or clean road grit added to keep the compost open. Plant outdoors in the autumn or spring, *i.e.*, October and November and in March. Old plants should be top-dressed in the early spring and pruning carried out in March, cutting back in the same manner as advised for plants grown in pots. Manure-water applied to the roots as soon as the flower-buds are visible is highly beneficial to the plants subsequently.

The blue colouring of the flowers of H. Hortensia is usually brought about by mixing a quarter of an ounce of sulphate of iron in a gallon of water and watering the plants in pots with this. Plants growing outdoors are sometimes watered with a solution of alum and water, a tablespoonful dissolved in a gallon of water and the soil occasionally watered with this being sufficient to cause a change in the colour of the flowers.

The propagation of these two species of Hydrangea is not in the least difficult for the beginner to understand, and he may, with ordinary care, raise a batch of plants quite successfully. The first essential is to obtain cuttings of a desirable kind, and most plants that have gone out of flower should provide the necessary shoots for this purpose. July and August are months in which the propagation should be done, and in ordinary circumstances the cuttings will root and grow away and flower next spring. Cuttings are made from young growing shoots some 4 inches or rather more in length. The growths should be stout and well or partially ripened.

3.—HYDRANGEA CUTTINGS MAY BE INSERTED IN ROWS IN FRAMES, OR, IF MORE CONVENIENT, IN SMALL COLONIES, AND THESE COVERED BY A BELL-GLASS OR HAND-LIGHT. ON THE LEFT THE CUTTINGS ARE DEPICTED TO BE COVERED, UNTIL WELL ROOTED, BY THE BELL-GLASS ON THE RIGHT.

The preparation of the cuttings is not difficult to understand. All that is necessary in this preparatory work is to trim off the lower leaves, leaving either one or two joints exposed, and then to cut through the stem of each cutting immediately below a joint. A prepared cutting is shown in Fig. 1. Sometimes it is possible to detach cuttings with a slight heel attached; when this is so, the chances of a successful issue are more promising.

There are several methods of raising plants of the Hydrangea from cuttings, but the better and more satisfactory way is that of inserting the cuttings in pots individually, using a compost of two parts loam, one part well-decayed manure and the free use of coarse silver sand, all well mixed together. Pots 2 inches in diameter answer the purpose admirably; these should be carefully crocked and filled with the prepared compost. Embed the cutting in the soil in the middle of the pot so that the joints are below the surface soil, and press the latter firmly at the base of each cutting. Water in lightly by the aid of a fine-rosed can, and later on transfer to the cold frame until rooted. Fig. 2 depicts a cutting duly inserted in a small pot ready for transference to the cold frame as advised. During the rooting process the soil should be kept moist and the frame-light shaded from the sun. A cold, shaded frame is an ideal position for propagating purposes.

Sandy soil placed in a cold frame will answer the purpose equally well where the demand for these plants is larger than in most establishments. Here the cuttings should be inserted in rows, and quite a large number of plants may be raised in this way. There may be other growers, however, whose requirements are met by a dozen plants, more or less. By the use of a hand-light or bell-glass this number of plants may be raised with ease. Soil prepared as already described, and the required number of cuttings dibbled in, will enable one to raise a batch of plants in a little while. Fig. 3 shows a few cuttings inserted in this fashion, with the bell-glass at hand ready to cover them.

D. B. CRANE.

GRAPES.

TREATMENT WHEN BERRIES ARE COLOURING.

VINES started into growth at first with the help of a little artificial heat each night and on cold, sunless days have now so far advanced that the berries are commencing to colour. From this stage onward different treatment must be given to the Vines. They require plenty of heat, preferably sun-heat, and also plenty of air free from draughts. The top ventilators should be partially closed at night, but not quite; also in mild weather the front ventilators must be left open about 1 inch wide. Early in the morning, before the sun-rays shine at all strongly on the house, the ventilators should be opened a little more, and if the day gradually becomes a hot, ideal summer one, pretty full ventilation must be the rule before ten o'clock in the morning. At this stage the border must be maintained in a very even state as regards moisture, though the atmospheric moisture should be reduced; the freer ventilation will ensure this. A dressing or two of some approved artificial manures may be given and watered in, also weak doses of liquid manure, once weekly—if the borders are well drained—until the berries are nearly coloured.

BENDING DOWN ONIONS.

MANY cultivators of Onions have much faith in the bending down of the tops of the bulbs, as they feel sure that such action hastens the swelling of them. If the bending down is done at the right time, no doubt the bulbs swell more rapidly afterwards; but then comes the question, What stage of the plant's growth is the best? Many bulbs are required for exhibition at the August shows, and in the majority of instances premature depression of the tops would spoil the bulbs. If the necks are thick, upright and very stiff, any attempt to bend them would be disastrous, because the scales or sheaths of the stems, being so succulent, would break off—mostly inside—and so new growth would again commence there and thicken still more an already thick stem or neck, and, furthermore, delay the natural ripening of the bulbs; so I think beginners would act wisely if they refrained from violently bending such specimens. The bulbs that ripen at the end of August and during September may be vastly improved by the bending down of the tops when active growth is waning. If tough enough, the necks will bend without bruising.

SHAMROCK.

HINTS ON GROWING TURNIPS.

A WELL-GROWN Turnip does not occupy more space than a badly grown specimen; indeed, the top growth of the latter is generally much larger than that of the former, and so spreads over more soil. Much, of course, depends upon a good strain; but when seeds are sown in very light soil and if it is not made at all firm, the resultant roots are inclined to be small, Parsnip-rooted and coarse. Such soils must be well firmed prior to the sowing of the seeds and while it is in a medium state as regards moisture. The resultant plants must in all cases be sufficiently thinned out in due course. Where heavy soils obtain, there is no need to firm them by treading and rolling. Deep digging is essential, and the soil must be broken up and powdered as much as possible while it is just moist after a light shower of rain. The seeds should be sown then without delay and the surface raked over to prevent it becoming caked; germination of the seeds will then be quick and even. If a few heavy showers of rain come during the first month after the seeds are sown, the soil will become very firm and the Turnips will be of good form and possess small, clean tap roots.

B.

THE TOWN GARDEN.

AFTER HEAVY RAINS.—Gardeners are apt to express themselves from time to time somewhat in these terms, viz., that "a nice warm shower would do a deal of good," or that "a good soaking rain" would have a similar effect on vegetation generally. Now, frequent rains during a hot and dry summer have a most beneficent effect on garden crops generally, though not all the good possible is realised because of neglect of subsequent action on the part of man. In the flower garden, for example, and in those localities where the soil is much inclined to bake on the surface—the latter becoming impervious to some extent to the equally beneficent results of sun warmth and aeration—a light stirring of the surface soil is of the utmost importance, and the neglect of this is often enough responsible for the little progress made by the plants. It is of the greatest possible moment, of course, following heavy rains, and these having beaten down the surface of the soil exclude both air and warmth, to the detriment of the crop, whatever it may happen to be.

HIGHLY ARRANGED FLOWER-BEDS.—While it may appear late in the day, now that all the flower-beds are filled with their summer occupants, to say anything having reference to the form a bed may take, I do so advisedly at this time, because the ill resulting from bad work—or shall I say a wrong appreciation of things?—will now be more apparent than at other times. A pet design of the amateur gardener in the early years of his experience is to arrange his flower-beds with highly mounded centres, and these are often seen some 18 inches higher than the turf. The operator does not stop to consider the harmfulness of this piling up of things while the work is proceeding; but later on, when giving water to his favourite plants and he sees it streaming away from those

in higher places in countless streamlets, he will after this reminder see that something is wrong. Nor is the plum-pudding-shaped bed good in effect, simply because from no one point of view can the plants be seen. To take a lesson from the flower-beds in our public parks and gardens, the arrangement is of a very different kind, the surface of each bed being nearly flat; and not only are the occupants decidedly more effective from the spectacular point of view, but in the circumstances a watering stands for a watering.

LIFTING BULBS.—All spring-flowering plants of a bulbous nature, Tulips and Daffodils in particular, should now be lifted from the soil. For the Tulips the lifting and drying off is a matter of annual importance, and because of the long-continued rootlessness of the bulbs a protracted season of rest should be given them. I cannot too strongly urge upon my readers the desirability of according such things when lifted a rational treatment. To lift bulbous plants from the soil and immediately expose them to the scorching rays of sun on a hot summer's day is quite wrong—it is both unnatural and irrational, and my readers will see this at a glance. The now fully matured bulbs of Tulips will be quite safe if arranged on the floor of an outhouse or airy shed or cellar, where the drying process will be gradual and complete. Later on, when the bulbs have been divested of their old—or, shall I say, soiled—clothes, they may be placed in boxes, always, however, in circumstances where there is a free access of air.

DAFFODILS.—For these bulbs annual lifting is not essential; indeed, in some soils the bulbs may remain for years without disturbance, doing quite well provided there is abundant room for development. In certain other instances, and where the bulbs have become crowded and deterioration is thereby threatened, the lifting should not be longer delayed. This is simple enough when the bulbs occupy beds to themselves, but it is less easy when they are grown in the mixed border. In these latter circumstances it is important that the lifting be done while the evidence of leaf-growth remains, as it not infrequently happens that little or no labelling is done to indicate the whereabouts of the clumps. E. H. JENKINS.

THE GREENHOUSE.

POTTING SHOW AND FANCY PELARGONIUMS.

PLANTS that have been rested and pruned have now made some short, sturdy shoots, and no time must be lost in getting the plants repotted. It will be necessary to reduce the old ball of soil considerably so as to facilitate the work of repotting in much smaller pots, and not into larger ones at the present time. Of course, the old soil does not now contain much plant nourishment, and if the roots were retained in it the plants would need constant feeding. Where roots are very plentiful on old specimens, some of them may be cut off, but not in sufficient quantity to cripple the plants.

If half-rotted, sweet leaf-soil, made from the leaves themselves, can be procured, a little may be mixed with the compost; but if there are bark, bits of sticks and other foreign matter in it, do not use leaf-soil at all, because there would be a danger of fungus growing, and this growth is deadly to Pelargoniums. Fibrous loam must form the principal part of the compost; to a bushel add a 7-inch potful of old mortar rubble, a similar quantity of dried cow-manure, a 3½-inch potful of bone-meal and a 6-inch potful of coarse sand. Mix the ingredients thoroughly. Place some of the roughest portion of the compost on the drainage material, and then scatter a dessertspoonful of soot on the rough soil. Make the soil very firm. Use as small pots as possible, so as to contain the roots and sufficient new soil to support the plants for about six weeks, as one or two more repottings will be necessary in due course.

Immediately the plants are potted place them in a cool frame and keep the latter close and shaded for a week or so. Very careful watering is necessary; in fact, after the first application more water will not be needed for several days, but a light spraying of the foliage daily for a time will be beneficial and induce a free growth. Then admit air freely and grow the plants as sturdily as possible. They should be placed in the greenhouse in light, airy positions about the middle of September. AVON.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

TREES AND SHRUBS.

Cratægus Pyracantha bare at base (*Miss M. L. W.*).—The lower portion of your Cratægus Pyracantha is undoubtedly choked up with so much breast-wood that it does not flower, and consequently no berries are produced. We should advise you to thin out the shoots where they are so crowded, tying in a few of the best where necessary in order to prevent the plant being too bare. A lot of the minor shoots can be cut out entirely, the object being to encourage good vigorous, well-ripened ones that can be depended upon to flower. Pruning may be carried out at once, as in so doing you can easily avoid cutting off any flowers which are likely to produce berries later on. Of course, next winter's display of berries will be limited to the present flowers; but if this above-recommended pruning is carried out, you will in all probability have a much finer show another year.

Treatment of old Yew trees (*Mrs. E. S. M.*).—There is little doubt that the poor state into which your Yew trees have fallen is principally owing to lack of nourishment. We should advise you to cut out the dead branches and give the trees a good mulching as soon as possible. The ground underneath the trees should be cleared of grass and weeds, if there are any, and be lightly forked over. Then give a 4-inch to 6-inch top-dressing of decayed manure and loam, letting it extend as far as the spread of the branches. It is more than probable that the ground is very dry; if so, the trees will be greatly benefited by a thorough soaking of water occasionally during the summer months. Even if pressure of work at this season delays the top-dressing till the winter, we should advise you to give an occasional watering this summer. The suckers referred to by you are, we presume, young shoots that the trees are pushing out in the attempt to recover from their weakness. If so, we should certainly not advise you to cut them off, as they will grow and serve to furnish the bare portions of the trees.

Ceanothus veitchianus dying (*E. T.*).—It is difficult to advise you about your plant of Ceanothus veitchianus without knowing more about the conditions under which it is growing. As a rule, it is not advisable to cut this shrub back into hard wood; but from what we can see of the plant from the photograph sent, you could not do much harm by cutting the branches halfway back, and would probably do good. The work ought to be done as soon as the flowers fade. We would also advise you to remove some of the plants which are close to the stem, and fork a little well-rotted manure lightly into the surface soil. It is probable that your plant has deteriorated by having other plants inserted close to it. If you root a few cuttings during summer, you will be able to replace the plant if it does not recover. All the annual pruning that is required is the shortening of the longer shoots to keep the bottom furnished with branches and the removal of dead wood. The work may be done as soon as the flowers have faded.

Pruning Prunus triloba (*M. R.*).—If you allow the young shoots of your Prunus to grow unchecked, the head of the plant will become of a loose, straggling character. In order to keep it in a neat bush-like form, the sh ots that have flowered should be at once cut back to within three or four eyes of the base consistent with preserving the symmetrical character of the specimen, and at the same time any old or exhausted shoots must be removed.

Early-flowering Chestnut (*F. W. Pearce*).—There is no distinctive name for an early-flowering Horse Chestnut. It is by no means an uncommon occurrence for some trees to open both their leaves and flowers from two to three weeks in advance of other trees which are apparently growing under exactly the same conditions. When a number of trees are grown on an estate, it frequently happens that one or two are in advance of the rest every year.

Flowers of Skimmia japonica (*Ursula*).—Male and female flowers of Skimmia japonica may be easily distinguished from each other. In the former case the yellow pollen of the stamens is conspicuous, while in the latter perfect stamens are absent, but the ovary is well developed. Try hand pollination to make the fruits set. The nurseryman you refer to does not stock shrubs; but most of the larger general nurserymen could supply plants of Skimmia. A reference to the advertisements in THE GARDEN will suggest a number of firms to you.

THE GREENHOUSE.

Growing the Eucharis (*Eucharis*).—Plants of Eucharis should be repotted as seldom as possible; therefore, if the roots of yours are in good condition, do not disturb them in any way. As they are just now making their growth, an occasional watering with liquid manure or an application of one of the many plant foods now on the market will be very beneficial. The Eucharis may be successfully grown with very little fire-heat at this season of the year, but, being essentially a stove plant, the thermometer should not at night be allowed to fall below 60°. In the winter the lowest night temperature that can be safely allowed is 55°. The plants should be shaded from bright sunshine, but at the same time the shading must not be carried to excess. Syringing two or three times a day is very beneficial; indeed, if the plants are freely syringed during the summer months they may not require much water at the roots. This will, of course, depend upon the structure and its situation, but, still, over-watering must be rigidly guarded against, for we are fully convinced that an excess of moisture at the roots is often the cause of Eucharis falling into ill-health, for which the mite is so often blamed. After the Eucharises have flowered it is a very good plan to keep them somewhat drier at the roots for about a month in order to give them a little rest; but it must be borne in mind that the plant is essentially an evergreen, and must on no account be dried off at any

time. By some cultivators bottom-heat is considered absolutely necessary for the successful culture of Eucharis, but such is by no means the case; indeed, we think it a disadvantage rather than otherwise, as aeration of the soil cannot take place to the same extent as if the pots are stood on a stage. This aeration undoubtedly plays an important part in the case of plants that stand for a long time without having their roots disturbed. Your plants of Eucharis with large leaves are in all probability E. grandiflora or E. amazonica, as it is also called, and the smaller one is E. candida.

Information about Malmaison Carnations (*J. W. B.*).—Judging by the piece sent, your plants of Malmaison Carnations are so badly diseased that it will be useless to expect any good results from them, and the best thing you can do is to burn them. There is a little difference of opinion as to the cause of Malmaison blooms coming with a green centre, but there is no question that the more the plants are fed the more trouble do they give. At the same time, old plants are more liable to be affected in this way than young ones. If the green portion does not take up too much of the flower, quite a presentable bloom may often be made if, directly the green knob is formed, it is grasped between the finger and thumb and removed with a combination of a twist and a pull. When this is done in an early stage, the curving petals often hide the faulty spot. They may also be assisted in this respect by a little delicate manipulation.

ROSE GARDEN.

Rose foliage curling (*M. F. Sanders*).—The curious cylindrical rolling of the Rose foliage you send is supposed to be caused by the larvæ of a sawfly. In some seasons this troublesome pest is more rife than in others. So far we have noticed little of it this year. The sawfly appears in May and June and the eggs are laid in the leaf. Spraying with nicotine wash has been found to kill the larvæ, but the best plan is to hand-pick the folded leaves when first seen and burn them. The pest in the cocoon form is often introduced to gardens on the roots of Briars. It is therefore a good plan to wash the roots of any new plants you obtain. Burning the surface soil from around infected plants in the late autumn would doubtless destroy many of the cocoons.

Roses from cuttings (*A. C. W.*).—We are pleased to know that the information we gave you has proved so helpful. We are always ready to impart the knowledge we possess to all our readers. We thank you for your notes, and shall welcome any you can send as the season advances. As to striking Rose cuttings in a frame, we may briefly describe the plan. For a cold frame you can insert the cuttings of Tea and Hybrid Tea Roses best in August and September, using ripened growths about 6 inches or 8 inches long of the current season's production. Prepare the soil about 12 inches deep and add quite two-thirds gritty material, such as sand from gravel roads. Cut out a trench about 6 inches deep and put in the bottom 1 inch of sand or old Cocoanut fibre. Stand the cuttings on this; then dig up the soil until only 1 inch of the cutting protrudes from the soil. Tread the soil very firmly about the base and give a good watering. Put on lights and keep close for a week or two, and shade if very hot. The cuttings will soon callus at the base, and may then be put into single pots in your warm greenhouse; but it would be best to defer this until March, and then either pot them up or allow them to grow on in the frame until October; then transplant. The rows of cuttings should be about 1 foot apart. For a heated frame or manure-bed the bottom temperature should be about 60° to 65°, and the cuttings inserted in 3-inch pots, using a compost of sandy soil, and plunge the pots in Cocoanut fibre or sand. Cuttings must be taken in February or March from growing plants under glass, plants that have just bloomed being utilised to give the cuttings. Cut the shoots up into lengths of two eyes each, leaving the leaf-stalk and leaves by the top eye and cutting the shoot level just beneath the bottom eye. Dibble these into the soil, making them firm, and water well. Shade with newspaper during sunshine. When rooted pot off into 3-inch pots, using a sandy compost, and grow the plants on in a warm temperature; afterwards plant out in June. The plan of making an abrasion near the part where budded is a very good one for budded Tea Roses, and this induces roots, which very often quite surpass those of the stock.

FRUIT GARDEN.

Damaged Strawberries (*W. Laker*).—The destruction we think has been caused by mildew, and probably also by an attack of red spider. Nothing can be done to save the crop. We would advise you to chop up the plants as early as possible and burn every leaf, cropping the ground with some winter green crop for a change, and planting a new plantation of Strawberries some distance away, trenching and heavily manuring the ground beforehand. If strong runners are planted early in August they will give you a splendid crop next year. You will do well to procure a clean stock from a distance to plant with.

Vine leaves with brown marks (*Constant Reader*).—There are no traces of red spider on the leaves sent, the brown marks being without doubt caused by the sun shining on the leaves while they were still wet. A little air given early in the morning to dry the foliage will obviate this trouble. Furthermore, some of the marks being in parallel lines would suggest that the leaves had been in contact with galvanised wire or wire on which moisture was hanging when the sun was bright.

Damage to Black Hamburgh Vine foliage (*Anxious Enquirer*).—The shoot you sent is infested with red spider, and it is this, we think, which has caused the damage, coupled probably with inadequate ventilation during the recent spell of very hot weather. The best thing for you to do will be to cut off the top part of the injured shoots and to apply sulphur (mixed with water to the consistency of paint) to the hot-water pipes after making them as hot as you possibly can. The fumes from this will kill the spider after two applications on succeeding evenings. All the ventilators and every hole and cranny through which it is possible for the fumes to escape must be stopped up before applying the sulphur. The plant you send is Coronilla Emerus.

MISCELLANEOUS.

Carnation diseased (*T. C. H.*).—There is a little mycelium in the stem at the extreme base of the part sent, but we think the seat of the disease lies lower down than we are able to see in the specimen. It would be well to remove all the affected parts and burn them, and if the trouble increases send us a complete plant.

Names of plants.—*Camphire.*—1, Heuchera brizoides; 2, Gazania splendens.——*C. E. T.*—1, Staphylea pinnata; 2, Fraxinus Ornus; 3, Rhamnus catharticus; 4, Philadelphus coronarius.——*C. C. F.*—1, Veronica longifolia; 2, V. Teucrium dubia; 3, Saxifraga taygetea; 4, S. Geum; 5, S. hypnoides; 6, Campanula rhomboidalis; 7, too scrappy to name.——*J. Higgs.*—1, Abutilon Thompsonii; 2, A. sellowianum marmoratum; 3 and 4, Campanula persicifolia alba; 5, Veronica Teucrium dubia. ——*J. F., Dumbartonshire.*—1, Vallota purpurea major; 2, 3, 4 and 5, garden varieties of Codiæum (Croton); 6, send in flower; 7, Nepeta Glechoma variegata; 8, Abutilon Thompsonii; 9, Phyllanthus nivosus.——*F. S.*—Iris orientalis.——*Carnation.*—Aster alpinus.——*F. A. Sturge.*—1, Polemonium cæruleum alba; 2, Iris amœna variety; 3, Polemonium cæruleum; 4, Iris versicolor.——*Questor.*—1, Stenotaphrum glabrum variegatum; 2, Geranium pratense album; 3, Helxine Solierolii; 4, Veronica longifolia variety.——*E. M. L.*—Iris versicolor and Rubus deliciosus.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to the Editor, 20, Tavistock Street, Covent Garden, London, W.C.

BEAUTIFUL DELPHINIUMS FROM MAIDSTONE.

A charming collection of Delphiniums has come from Messrs. George Bunyard and Co. of Maidstone, the spikes strong, leafy and bearing flowers of exceptionally beautiful colouring. One of the most striking is called Rev. E. Lascelles, a flower of great size, with no trace of coarseness, double, and intense violet and clear blue, two shades that are in perfect harmony, finished with a white centre. A group of this must be a perfect colour picture. Kaiserin Augusta Victoria is blue and rosy mauve; Mrs. Bruton, single, deep sky blue; Darius, double, pale primrose, an exceptionally fine variety; Orchioides, single, soft primrose, with a double chocolate centre, reminding one of an Orchid—a flower of exceptional beauty; Lorenzo, single, a rich Oxford blue; Garibaldi, also single, sky blue, shaded with purple; Life Guardsman, a glorious flower of the colour of the Anchusa; Ayres, cream or pale primrose, an exceptionally fine spike; Nerisse, shades of blue, double; Cymbeline, semi-double, bright blue; Mrs. Creighton, also semi-double, deep gentian colour; Shylock, single, rich blue, white centre; Medea, semi-double, deep purple; and Pharaoh, lovely shades of blue. Several promising seedlings were also included.

PÆONIES FROM LANGPORT.

The advance which has been made during recent years among herbaceous Pæonies is wonderful indeed, and foremost among those responsible for this advancement is the firm of Messrs. J. Kelway and Son, Langport, Somerset. Recently Messrs. Kelway sent us a few of the choicest of their double-flowered varieties, which, in addition to their exquisite colour tints, possessed a fragrance not unlike that of the Rose itself. There must be many gardens with shaded borders where Pæonies would thrive splendidly, and certainly their many good points warrant their inclusion in all good gardens. We select the following from those sent as appealing most strongly to us: Countess of Chesterfield, pure white outer petals and pale blush centre; Pageant, rosy purple; Mrs. F. Davidson, large outer petals rose blush, centre creamy white; Duke of Devonshire, very large, with outer petals deep rose colour and smaller centre of the same hue; Dr. Bonavia, pretty shade of pink, this becoming paler towards the edges of the petals; and Prince of Wales, large rosy mauve.

RARE FLOWERS FROM LEONARDSLEE.

Mr. W. A. Cook, The Gardens, Leonardslee, Horsham, sends us another contribution of rare flowers, chiefly those of shrubs. Mr. Cook writes: "Among the finest wall plants is Fremontia californica, which is semi-evergreen here. It bears bright yellow, cup-shaped flowers, each nearly 3 inches in diameter. Our largest plant is nearly 20 feet high, flowers with great freedom, and stands the winter well. It requires a rather dry and elevated position, and should have its roots well covered with protecting material during cold weather. Grevillea sulphurea, G. rosmarinifolia, G. alpina and G. forestianum are all very beautiful and are easily grown. They all last in flower for a long time, grow freely when in suitable positions, are evergreen, and as such are unusually attractive. Plant in very light soil and occasionally top-dress. Fabiana imbricata is a beautiful Erica-like evergreen shrub, and bears a profusion of tubular flowers which cover the whole plant. Specimens that were protected last and the previous winter fared worse than those that were not covered. Light loam and leaf-soil and a high position suit these plants admirably. Abutilon vexillarium is a beautiful wall plant, and flowers with great profusion from early summer till quite late in autumn. Plants 10 feet high make remarkable features upon a wall. The flowers are pendulous, with crimson sepals, yellow petals and purple or brown stamens. It is a very easy plant to grow, and one that will give much pleasure. A. vitifolium is a gem against a wall, flowers with the greatest freedom and is perfectly hardy in the

shrubbery, but in such position it flowers much later. We have one fine plant, nearly 20 feet high, which has been a mass of lavender flowers, with creamy stamens. Ozothamnus rosmarinifolius is an evergreen well adapted for shrubberies or for use as dot plants in the alpine rock garden. It bears myriads of small white flowers, and grows well under the same conditions as Fabiana imbricata. Solanum crispum and S. jasminoides are two very beautiful plants, and both are hardy, the former bearing large clusters of lavender, yellow-centred flowers. Our plants are upwards of 20 feet high, covered with blooms, and make an unusually attractive picture. S. jasminoides requires a wall, where it grows rapidly and produces quantities of white flowers all through the summer and autumn. Rynchospermum (Trachylospermum) jasminoides does remarkably well outside, and in a warm corner is a great beauty. Its charming white, highly scented flowers are very startling and at once attractive. Rhododendron hirsutum and R. h. album are evergreen, flower with great freedom, and are fine subjects as dot plants in high positions. Styrax japonicum is now a rare sight. The flowers are thickly studded on the under sides of the branches and are pure white. It is quite hardy and has formed a large tree 15 feet by 15 feet. Styrax Obassia flowers later, the blossoms being borne in long racemes. The foliage is much larger, else the tree flourishes under the same conditions as S. japonica."

SOCIETIES.

RICHMOND HORTICULTURAL SOCIETY.

THE thirty-sixth annual exhibition arranged by this society was held in the Old Deer Park, Richmond, on the 29th ult., when a wonderful display of flowers was to be seen. The Rose classes were exceptionally well filled, and vegetables also were largely shown. Fruit was not quite up to the average. This society owes much of its success to the untiring energy of the hon. secretary, Mr. W. J. Cook, who is well supported by the committee.

COMPETITIVE CLASSES.

Pot Plants (*Open to All*).—In Class 1, for a group of plants in or out of flower, first prize went to Lady Waechter, Terrace House, Richmond Hill (gardener, Mr. H. Burfoot). This was composed of Crotons, Campanula persicifolia, Coleus, Lilies, Caladiums and Begonias, the arrangement, however, being rather crowded. This appeared to be the only entry in this class.

For a semi-circular group of plants, W. S. Bailey, Esq., J.P., Poulett Lodge, Twickenham (gardener, Mr. H. A. Stiles), was first, Lilies, Carnations and Gloxinias being well shown here. C. M. Bartlett, Esq., East Sheen (gardener, Mr. H. Hicks), was second; Mrs. Fitzwygram, Hampton Hill (gardener, Mr. W. Redwood), third.

For six Palms, W. S. Bailey, Esq., was first with well-grown specimens, Lady Waechter being second.

Mrs. Cooper Coles, Twickenham (gardener, Mr. W. H. Keary), was first for six Fuchsias, distinct, with splendidly flowered pyramid plants; Mrs. Vaughan Arbuckle, Richmond (gardener, Mr. H. Lawrence), was second, the plants here also being very good indeed; Mrs. Fitzwygram was third.

For six Coleus there were two entries, C. M. Bartlett, Esq., winning first prize with large, well-coloured plants of high quality. Second honours went to Lionel Warde, Esq., Petersham (gardener, Mr. A. Allum), the plants here also being of high quality.

In a similar class for Caladiums there were three entries, Mrs. Vaughan Arbuckle winning the premier prize with remarkably good specimens, Cardinale calling for special mention. Second and third prizes went respectively to C. M. Bartlett, Esq., and Lionel Warde, Esq.

For nine Streptocarpi the competition was good, G. Atkins, Esq., East Sheen (gardener, Mr. W. J. Hill), winning first prize with very good and well-coloured specimens. A. Burton, Esq., East Sheen (gardener, Mr. T. Quarterman), was second; and Lady Waechter third.

Mrs. Cowper Coles was first in a similar class for Gloxinias, the crimson-flowered plant shown here being very good indeed. A. Burton, Esq., was second.

G. Atkins, Esq., was first for six tuberous Begonias, W. S. Edwardson, Esq., Sidcup, being second.

Roses (*Open Classes*).—The Gunnersbury Challenge Cup, offered for forty-eight Roses, distinct, three blooms of each, was won by Messrs. D. Prior and Sons of Colchester with a remarkable display of large and well-coloured flowers. Duke of Teck, Lady Ashtown, Comte de Raimbaud and Mrs. Theodore Roosevelt were varieties that called for special mention. Second prize went to Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, whose flowers were exceptionally well coloured but rather smaller than those of Messrs. Prior. General Jacqueminot, George C. Waud, Harry Kirk, J. B. Clark and Mrs. R. G. Sharman Crawford were all of special merit. Messrs. B. R. Cant and Sons of Colchester were a good third, the flowers here also being exceptionally well coloured.

The class for twenty-four Roses, distinct, three blooms of each, was well filled, Messrs. Frank Cant and Co. securing first prize with grand flowers. Lyon, Mrs. Theodore Roosevelt, Dean Hole, Marie Baumann and Lady Ashtown were a few of the best. Messrs. D. Prior and Sons were second, Comte de Raimbaud and Mme. Jules Gravereaux being exceptionally good among their flowers. Third prize was well won by Mr. George Prince, Longworth, Faringdon, who put up exceedingly well-coloured flowers, Lyon being remarkably good.

For twelve Roses of one variety, Hybrid Perpetual or Hybrid Tea, the entries were very numerous, first prize going to Messrs. R. Harkness and Co., Hitchin, for a wonderful box of Mrs. J. Laing. Messrs. D. Prior and Sons were second with very fine blooms of Lady Ashtown; and Mr. G. Prince, Longworth, was third with rich-coloured flowers of Lyon.

In a similar class for Tea Roses, Messrs. D. Prior and Sons were first with Mme. J. Gravereaux; Messrs. B. R. Cant and Sons second with the same variety; and Mr. H. Drew, Longworth, third with Comtesse de Nadaillac.

For twelve trebles, Mr. Charles Turner, Slough, was a good first, his flowers of Sultan of Zanzibar, Mrs. T. Roosevelt and Lady Ashtown being exceptionally good. Mr. H. Drew was second.

Roses (*Amateurs only*).—For twenty-four Roses, distinct, single blooms, Mr. E. J. Holland, Sutton, won first prize with remarkably large and clean blooms, Mrs. Theodore Roosevelt, Frau Karl Druschki and Mildred Grant being extra good. Mr. W. R. Hammond, Grovelands, Burgess Hill, was second; and Mr. W. C. Romaine, The Priory, Old Windsor, third

In the Rose classes limited to exhibitors residing in the district, A. Elsee, Esq., Burlington House, Hampton Hill (gardener, Mr. B. Mason), was first for twelve blooms, distinct; G. J. Favel, Esq., High Street, Hampton Hill, first in a similar class; and H. C. Duckworth, Esq., Elmstead, Twickenham, first for six blooms.

Herbaceous Flowers.—For twenty-four bunches of cut herbaceous flowers there were two entries, first prize being won by Lionel Warde, Esq., Petersham House, Petersham (gardener, Mr. A. Allum), Gladioli, Lilies and Alstrœmerias being good. The Rev. W. H. Oxley, M.A., The Vicarage, Petersham (gardener, Mr. F. Gower), was second.

Sweet Peas.—For six distinct varieties of Sweet Peas, twenty-four spikes of each, there were eleven entries, first prize being well won by A. W. Perkin, Esq., J.P., Greenford Green, Harrow (gardener, Mr. G. Baldwin). Evelyn Hemus, Constance Oliver and Maroon Paradise were very good indeed. Second prize went to W. Mowsley, Esq., West View, Ashford, Middlesex, Constance Oliver and Nora Unwin being the best varieties. E. R. W. Bennett, Esq., Sunbury (gardener, Mr. Chart), was third.

For nine distinct varieties of Sweet Peas, twenty spikes of each, there were five entries, first prize going to A. W. Perkin, Esq. Paradise Red Flake, Frank Dolby, Mrs. A. Ireland and Elsie Herbert were very fine. The Earl of Devon was second, The Marquis and Clara Curtis being good. Third prize went to W. Mowsley, Esq.

For nine distinct varieties (prizes offered by Mr. H. Eckford), first prize was won by G. T. Biddulph, Esq., the flowers here being well coloured. Mr. W. Cook, Richmond, was second.

For eight bunches of Sweet Peas (prizes offered by Messrs. E. Webb and Sons), the Earl of Devon was first with splendid flowers; Miss Langworthy, Holyport, was second.

Fruit (*Open Classes*).—For three bunches of black Grapes, distinct, there were three entries, Sir Walpole Greenwell, Bart., Marden Park, Woldington, winning first prize with excellent bunches of Prince of Wales; Messrs. W. and E. Wells, Hattonhurst, Hounslow, were second with Black Hamburgh; and W. S. Bailey, Esq., Twickenham, third. Two exhibits only were staged for white Grapes, Sir Walpole Greenwell, Bart., winning first prize with good bunches of Foster's Seedling; W. S. Bailey, Esq., was second.

In the fruit classes limited to residents in the district, first prize for two dishes of Strawberries, distinct, was won by Messrs. W. and E. Wells for grand fruits of Leader and Bedford Champion. G. T. Biddulph, Esq., Douglas House, Petersham (gardener, Mr. C. Howe), was second with Royal Sovereign and Leader, and Mr. Owston, Langley Lodge, Langley, third with Countess and Royal Sovereign.

G. T. Biddulph, Esq., was first for one Melon; A. Burton, Esq., East Sheen (gardener, Mr. T. Quarterman), second, and Mr. Owston third.

Three dishes of Peaches were staged in the class for these, Messrs. W. and E. Wells winning first prize with Condor. Mr. Owston was second, and W. S. Bailey, Esq., third.

Vegetables (*Open Classes*).—Two exhibits were staged in Class 21 for a collection of twelve distinct kinds of vegetables, first prize being won by Miss Langworthy, Gay's House, Holyport, Berks (gardener, Mr. T. J. Brown). The Carrots, Peas and Beetroots were very good here. Colonel Biddulph, Grey Court, Ham (gardener, Mr. Montague), was second, and Mr. H. Keene, Richmond, third.

For nine dishes of vegetables, distinct, E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson), was first with a very fine display, Peas, Potatoes and Carrots being extra good. Miss Langworthy was a good second, and G. T. Biddulph, Esq., third.

For Messrs. J. Veitch and Sons' prizes Miss Langworthy was first, and Sir Walpole Greenwell, Bart., second.

The Earl of Devon, Powderham Castle, Exeter (garden Mr. T. H. Bolton), was first in the class for Messrs. E. We and Sons' prizes, Carrot Defiance being extra good. M Langworthy was second, and Mr. H. Keene third.

The classes for table decorations and bouquets, as w as the cottagers' classes for vegetables, were well contest but owing to the demand made on our space by the repo of other shows we cannot give details of these.

NON-COMPETITIVE GROUPS.

Messrs. William Cutbush and Sons, Highgate, N., p up a pretty display of Carnations, border, perpetu flowering and Malmaison varieties all being includ Countess of Onslow, a charming puce-coloured flower, w in fine form, and Prince Arthur (scarlet) and Sault (salm scarlet Malmaison) were also noticeable.

The Delphiniums from Messrs. J. Kelway and So Langport, were, as usual, very fine indeed, huge spikes many exquisite varieties being shown. A few of t more notable were Norman Hurst, semi-double, rich bl and purple; Maid of Honour, sky blue, shaded ro mauve; Beauty of Langport, primrose; and Kelway Lovely, clear sky blue and bright rose mauve, double.

Messrs. Bakers' of Wolverhampton staged a fine ba of herbaceous flowers, among which were excellent examp of Iris, Delphiniums, Gaillardias, Pyrethrums and Viol

The Roses from Mr. F. M. Bradley, Peterborou were a good lot, and were most tastefully arranged. Clim ing Lady Ashtown, Pauline Bersez (cream, shaded yellow Richmond, Liberty, Frau Karl Druschki and other notab sorts were all shown in first-class condition.

Messrs. T. S. Ware, Limited, Feltham, had a beauti display of herbaceous flowers, Salvia Sclarea, Isatis glauc Inula glandulosa, Delphiniums and many other kin being well shown. In front of the group Messrs. Wa had a glorious display of their famous tuberous Begoni

Sweet Peas from Mr. Henry Eckford, Wem, Shropshi were a beautiful lot, the blossoms being large and t varieties embracing many of the newer sorts. Paradi Ivory, Othello Waved, Lady Althorpe (very faint blu flower), Mrs. E. Gilman (beautiful blush grandiflora) a Dorothy Tennant Spencer called for special mention.

Mr. C. F. Waters, Balcombe, Sussex, had a fine displ of Carnations, border varieties being largely shown well as perpetual and Malmaison types. Among t borders the Hon. Mrs. C. Bathurst was particularly noti able on account of its dull brick red colour.

Mr. W. J. Unwin, Histon, Cambridge, had a very fi display of Sweet Peas, among which were a number new varieties of much excellence. Of these we specia noticed the beautiful orange flaked variety Mrs. W. Unwin, Eric Harvey (a delightful pink and white flowe Mrs. R. Hallam (salmon pink on cream base), Freda Unw (beautiful clear lavender) and Nettie Jenkins (lavend with rose mauve standard.

Messrs. George Jackman and Sons of Woking staged good group of Roses, and also herbaceous plants, amo the latter being a fine lot of Iris Kæmpferi seedlings, t colours of which were exceedingly good.

The Roses from Messrs. W. and J. Brown, Peterborou were a very good lot indeed, the flowers being well arrang and including most of the leading sorts.

Messrs. J. Veitch and Sons, Limited, Chelsea, arrang a beautiful group of pot plants on the floor, Roses, Clema and Hydrangeas being the principal kinds shown.

Mr. L. R. Russell, Richmond, also had a wonder display of pot plants, stove foliage subjects and Fuchs predominating.

The Gloxinias from Mr. H. E. Fordham, Twickenha were a very good lot indeed, purple shades of colour bei mostly shown. The plants were well grown and the flow large.

Mr. K. Therkildsen, Old Southgate, staged a nice gro of cut Roses, Lyon, General MacArthur and Betty bei very pretty.

Messrs. Stuart Low and Co., Bush Hill Park, Enfie had a delightful exhibit of Carnations and Roses, t flowers being particularly rich in colour and of large si The Malmaison Carnations were particularly good. Amo the Roses the beautiful flowers of Lyon, Joseph Lov Elizabeth Barnes, Mme. Segond Weber, General MacArth and White Killarney called for special mention.

Mr. William Thompson, Sheen Nurseries, had a lar group of pot plants on the floor, the Hydrangeas bei particularly good.

Carnations and Lilies from Mr. W. H. Page, Hampto were exceptionally good, the flowers being large and ri in colour. The background of Rambler Roses was mo effective, Hiawatha being particularly pretty.

The large group of vegetables and flowers staged Messrs. E. Webb and Sons, Wordsley, Stourbridge, w a very fine one in every respect, and reflected great cre on the firm. Melons were exceedingly fine, and Cucumbe Tomatoes, Peas, Beans, Beetroots and Potatoes were al well shown. The flowers embraced a particularly go strain of Gloxinias, Sweet Peas in all the leading sor Hydrangeas and Spiræas.

Messrs. William Paul and Sons, Waltham Cross, had large box of the beautiful new Rose Juliet, which attract much attention.

AWARDS OF MEDALS.

Large gold medals to Mr. W. J. Unwin, Mr. L. R. Russ and Mr. C. F. Waters. *Gold medals* to Mr. W. H. Pag Messrs. H. B. May and Sons, Messrs. Kelway and So Messrs. W. and J. Brown and Messrs. E. Webb and So *Silver-gilt medals* to Mr. Henry Eckford, Messrs. T. Ware, Limited, Messrs. William Cutbush and Sons and M W. Thompson. *Silver medals* to Messrs. J. Veitch Sons, Limited, Mr. F. M. Bradley, Messrs. Bakers, Mess G. Jackman and Sons, Mr. Karl Therkildsen, Mess Jarman and Co. and Mr. C. Engelmann.

THE GARDEN.

No. 2017.—Vol. LXXIV. July 16, 1910.

CONTENTS.

Uncommon Rhododendrons 345
Notes of the Week
Forthcoming events 346
Correspondence
In the Blue Mountains, Jamaica .. 347
Primula pulverulenta 347
A beautiful bedding Rose 347
Petunias 347
Gardening of the Week
For the South and South Midlands .. 347
For the North and North Midlands .. 347
Greenhouse
Notes on Orchids .. 348
Pretty plants for greenhouse shelves 348
Some good and interesting new hardy plants 348
Kitchen Garden
The Coleworts and their culture .. 349
Rose Garden
Hybrid Tea Roses for beds 349
Flower Garden
A pretty rock garden 350
Iris tingitana 350
Sweet Pea chat .. 351
Coloured Plate
Three good Delphiniums 351
A beautiful Escallonia 351
Gardening for Beginners
Garden work week by week 352
The layering of Roses and Clematises .. 352
Rose Harry Kirk .. 353
Rose fruits or heps 353
Preparing beds for Strawberries .. 353
Feeding Chrysanthemums 353
The Town Garden .. 353
Editor's Table 354
New plants 354
Answers to Correspondents
Flower garden .. 354
Trees and shrubs .. 355
Miscellaneous 355
Societies 355

ILLUSTRATIONS.

Iris tingitana growing outdoors in South Devon .. 349
A simple rock garden in Scotland 350
Three good Delphiniums .. .. .. Coloured plate
A hybrid Escallonia in Messrs. Veitch's nursery .. 351
How to layer Roses and Clematises 352, 353

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

UNCOMMON RHODODENDRONS.

In praising the numerous garden Rhododendrons which have originated through the intercrossing of such species as R. catawbiense, R. ponticum, R. caucasicum, R. arboreum and one or two other species, we are apt to overlook the merits of a large number of species and varieties which, though of humbler proportions, possess a beauty and subtle charm which warrant them an equal share of favour with their more gorgeous relatives. Some of these kinds rarely rise more than 1 inch or 2 inches above the ground, and are at home in marshy or boggy ground, yet showy flowers are borne which make them conspicuous objects when in good condition. A representative of this class is noticeable in the Northern Asiatic R. kamtchaticum. Then we find other kinds growing on hillsides, which form dense, twiggy bushes which bear large quantities of bright-coloured blossoms; and, again, we may meet with rare kinds growing to 12 feet in height, which deserve more general attention than is bestowed on them at present.

A collection of these rarer Rhododendrons would form a valuable asset in any garden where Rhododendrons thrive, for their flowering season extends over a considerable period, and a great diversity in habit, foliage, form and colour of the flowers is observed. An appropriate manner of growing these kinds is to form them into a large informal group or series of beds, so that a comparison may be easily made between the various kinds. With a few exceptions, no more difficulty is experienced in their culture than in that of the better-known kinds, while a number of the smaller-growing sorts may be more easily propagated, as half-ripened shoots inserted in pots of sandy peat in a warm, close case root readily.

In passing in review some of the members of this group, two kinds are specially noticeable at the end of May, namely, the yellow-flowered R. Broughtonii aureum and R. Smithii aureum. Those who are familiar with these will remember the glaucous leaves of the latter and the dull green leaves of the former, which constitute the principal distinguishing points; but the casual observer might think the two kinds alike, as the flowers are very similar. Where one kind only is wanted, the former will be found the better plant. Both plants are very interesting, for they originated as hybrids between a large-flowered evergreen Rhododendron and R. sinensis, perhaps better known to some as Azalea mollis, and are members of a small group which was at one time distinguished by the name of Azaleodendron.

Turning from this, we find a very distinct species in the small-growing, purple-flowered R. lepidotum, a native of the Temperate and Alpine Himalaya. In this the flowers are flat and about 1 inch across. Although its normal flowering-time is May, it not uncommonly bears a few blossoms at irregular intervals during summer. R. indicum possesses a number of floriferous forms, which stand out of doors in the southern parts of the country. The most familiar of these is the old, well-known pot plant, amœnum; but the variety splendens is richer coloured and altogether better for outdoor planting. Then we have the form which Professor Sargent introduced from the mountains of Japan under the varietal name of Kæmpferi, which is exceedingly showy when in bloom in May. The little double red variety of indicum, known as balsaminæflorum, is also very pretty, and makes an excellen plant for a group in the front of a bed.

The division of the genus to which we have been used to apply the term Azalea gives us several other species in addition to the last-mentioned. One of great beauty is found in the white-flowered, hairy-leaved R. ledifolium, which in many respects resembles a single-flowered white form of R. indicum. A variety of it may also be obtained which is quite different as regards the flowers, for they are pinkish in colour and double. It is known by the name of narcissiflorum. A curious Japanese plant is found in R. linearifolium, a species with narrow, hairy leaves and pinkish flowers with narrow petals. A rare plant, not easily obtainable, is R. quinquefolium. The leaves are arranged in fives and surround the stem. They are exceedingly beautiful when they first appear, for they are richly marbled with green and brown. It is a deciduous plant and bears reddish flowers. Plants may be imported from Japanese nurseries. Two other deciduous kinds which are worth attention are Albrechti and dilatatum, both of which bear rosy purple flowers. The North American R. Rhodora is a floriferous species well worth planting; while Japan presents us with a pretty little plant

in R. serpyllifolium, a species with tiny leaves and purplish flowers. Referring again to R. kamtchaticum, we find it an excellent plant for boggy ground in the rock garden, while, if a little attention is paid to keeping it moist, good patches may be grown with the other kinds. It has the habit of suckering freely and quickly spreading about into a good-sized mass. A position exposed to drying winds would be most unsuitable.

The bright red flowers of the two species ferrugineum and hirsutum render them so conspicuous in the alpine regions of Europe that they have been given the name of Rose des Alpes. Several forms of the former are known, the most distinct being album, with white flowers. The charming little R. racemosum, with white flowers deeply tinged with rose, is an exceptionally useful plant. Its chief peculiarity lies in its flowers, which are borne from axillary and terminal buds in such a manner as to represent a raceme of flowers. The Himalayan R. glaucum is hardier than some people imagine and is well worth attention, while few more beautiful sights can be witnessed than a well-flowered bush of R. cinnabarinum, sometimes called R. Roylei. In addition to these there are many others which space will not allow of being mentioned other than by name. A few of them are compactum multiflorum, Wilsoni, Anthopogon, afghanicum, Hammondii, Keysii, myrtifolium, yunnanese, rubiginosum and punctatum. W. L.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

July 16.—Wood Green Horticultural Society's Show.

July 19.—Royal Horticultural Society. Exhibition of flowers, fruits, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. Fred Enoch, F.L.S., F.E.S., on "Insects Affecting Our Crops." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

July 20.—Cardiff Horticultural Society's Show (two days). Liverpool Horticultural Society's Show (two days). Newcastle Summer Show (two days).

July 21.—Truro Horticultural Society's Show.

Exhibition of forced flower and foliage shrubs at Boskoop.—On the occasion of the fiftieth yearly anniversary of the Pomological Society of Boskoop (Holland), the members of which formerly occupied themselves principally with the cultivation of fruit trees, but have now for years applied themselves almost exclusively to the growing of all sorts of flower, foliage and forcing shrubs and conifers, an exhibition of forced flower and foliage shrubs will be held during the first half of the month of April, 1911. The exhibition building will occupy a surface of 2,600 square metres.

Hanley Flower Show.—This important annual exhibition was held in Hanley Park, Staffordshire, on the 5th and 6th inst., and, notwithstanding bad weather, proved a great success. Roses, pot plants, Sweet Peas, fruits and floral decorations were all well and freely shown, and the arrangement of the whole display reflected great credit on the secretary and committee. Owing to the demand on our space caused by the reports of other shows, we are compelled to hold over our description of the Hanley exhibition until next week.

Royal Scottish Arboricultural Society.—The annual excursion of this society was held recently, when about seventy members took part. On Monday, June 27, the party left Edinburgh and Glasgow for Banavie, where they arrived after a pleasant journey. On the first morning—that of Tuesday, June 28—the company went by special train from their headquarters at Banavie to Corrour to see the extensive afforestation work being carried on by Sir John Stirling Maxwell. Much interest was taken in the results of the adoption of the Belgian method of planting instead of the ordinary notching. The general opinion seemed to be favourable to the former. On the morning of June 29 the company went by steam-launch up the Caledonian Canal to Lochs Lochy and Oich. The route enabled the members to inspect the woods of Invergloy and Letterfinlay, composed mainly of Larch and Scots Pine. Thence they proceeded to Laggan Bridge, where they were joined by Captain Elice of Invergarry, who showed them his famous woods of Craiglea, where, although the greater part of the Larch planted a number of years ago was cut, some fine specimens had been preserved. Thence the party went to the Fall of Garry, the way leading through fine woods of Oak, Larch, Scots Pine, Spruce and natural woods of Birch. The following morning they again left Banavie, proceeding by train to Tulloch, where they were met by their president, Sir John Stirling Maxwell, and then drove to Ardverikie, where they witnessed the great development of forestry which has taken place on the estate of Sir John Ramsden. In about forty years no fewer than 10,400 acres of rough land have been planted, with splendid results. The party here had the advantage of the guidance of Mr. Grant Thomson, who has been Sir John's counsellor in this great planting scheme. On Friday the party visited Lochiel and inspected, among other arboricultural features, what is said to be the finest old natural Scots Pine forest in Scotland, Lochiel Old Forest, as well as young woods of great promise. In the evening the annual dinner of the society was held at Banavie, when Sir J. Stirling Maxwell, presided.

Plane trees as a danger to health.—We have received a cutting from an Italian newspaper drawing attention to Lord Walsingham's eminent services to entomology and botany, and especially to his microscopical study of the fruit of the Plane. Quoting from a letter of Lord Walsingham's to *The Times* of May 7, it gives the following particulars and suggestions: "The Plane is a tree so good for shade, so easy to cultivate and of such rapid growth, that it has come much into favour for planting in the streets and roads of town and country. But Lord Walsingham raises the question whether the many cases of lung and throat trouble observed in persons who have frequented some Plane-planted road in windy weather may not be ascribed to the *spiculæ* (minute pointed darts) which are thrown off by the spherical fruits and launched into the air in all directions. Dr. Henry of Cambridge, being consulted, answered that it was now considered that Plane trees were prejudicial to health; that a special law in Alsace-Lorraine prohibits the planting of Planes near schools, and that Galen and Dioscorides, scientists of ancient Greece, were already aware of their irritating quality. For some time it was supposed that the irritation was caused by minute hairs given off by the pubescent leaves in spring; but cases occurring in the North of Italy after the leaves had fallen directed investigation to the fruit. Recent experiments conducted by Dr. Henry by means of gelatine-coated glasses revealed an enormous number of these minute *spiculæ*, and it became clear that they must float in millions in the air of streets planted with Planes. Such *spiculæ* cause irritation of the throat, the bronchial tubes, the lungs and the eyes, and the question has arisen among medical men whether the Plane should not be entirely banished from towns and places of health resort. Lord Walsingham, making a rapid calulation of the approximate number of *spiculæ* in a single fruit, found that a fruit gathered from a young tree contained thirty to forty sections or groups of about thirty seeds; that each seed is composed of about two hundred and sixty separate cells; and that each cell is formed of twenty to thirty articulations or *spiculæ*. Hence it is calculated that each fruit contains from five to six millions of *spiculæ* capable of producing irritation when in contact with the mucous membrane of the throat or eyes, or when they have penetrated to the lungs.

Outing at East Burnham Park.—Some thirty members of the Royal Horticultural Society, with friends, were, in spite of the dull weather and the labours of the Holland Park Show, enabled to accept the most kind and generous invitation of Mr. and Mrs. H. J. Veitch to their hospitality at their beautiful country home, East Burnham Park, Bucks, on Thursday of last week. But for the exhibition, many others would have been present, as this now "annual," and it is hoped a very persistent annual, outing is always one of great enjoyment. The skies were unusually leaden for July 7, but, happily, no rain fell to mar the visitors' enjoyment. Mr. Veitch met his guests at Slough Station at 11.15 a.m., and having brakes ready, the party were soon transferred to the park, travelling in so doing through some of the most fertile country in the kingdom. The gardens, which were first visited, were in delightful condition, the Roses, so abundant, being full of beauty. Truly a visit to East Burnham Park is a time of enjoyment, especially in July.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Awards at the Holland Park Show.—Kindly include the following in your official list of Royal Horticultural Society's awards made at the society's summer show recently held at Holland Park, Kensington. I find that these were accidentally omitted, and should follow after the silver-gilt Knightian award. Silver-gilt Banksian medals to Messrs. R. H. Bath, Limited, Wisbech, for Carnations, Roses and hardy plants; Mr. Bertie E. Bell, Guernsey, for Carnations; Mr. Charles Blick, Hayes, Kent, for Carnations; Messrs. Kelway and Son, Langport, for Delphiniums, Sweet Peas, &c.; The King's Acre Nurseries, Limited, Hereford, for fruit trees in pots; Mr. R. C. Notcutt, Woodbridge, for Roses, shrubs and hardy plants; Mr. W. H. Page, Hampton, Middlesex, for Carnations, Roses and Geraniums; Mr. G. Prince, Longworth, Berks, for Roses; Mr. G. Reuthe, Keston, Kent, for alpines and hardy flowers; Mr. C. Turner, Slough, for Roses and Carnations; and to Mr. Carlton White, 35, New Bond Street, W., for topiary work.—W. WILKS, *Secretary.*

The Royal Horticultural Society.—Your readers, and especially those who are Fellows of the Royal Horticultural Society, will learn with

much pleasure that Their Imperial Majesties the King and Queen have consented to become patrons of this society.—W. WILKS, *Secretary*.

The Musk.—The old scented Musk grows freely in my Rose garden, sowing itself from year to year.—R. M. STAVELEY, *Old Sleningford Hall, Ripon.*

In the Blue Mountains, Jamaica.—The miracle of Zephyranthes, pink and white, rising from the ground and flowering within four days has just been performed—the result of 5 inches of rain in a thunder-storm after a prolonged period of dry. It always happens, and always in this same number of days.—W. J.

Primula pulverulenta. — Last year the Royal Horticultural Society sent me a seedling Primula pulverulenta, which has now bloomed. The length of the flower-stem from the base to the tip measured 2 feet 11¼ inches, and there were six whorls of flowers of a vivid crimson hue, with a well-marked brown eye, each 1 inch or more in diameter. The number of flowers on the first (lowest) whorl was eight; on the second, ten; on the third, ten; on the fourth, eight; on the fifth, seven; and on the sixth, six. I do not know if these particulars are of any interest, but it seems to me that if this is a normal flower, the plant is a great improvement upon P. japonica.—JAMES BINNING, *Ely House, Chester.*

A beautiful bedding Rose.—Out of the many hundreds of dwarf Roses planted on each side of the chief entrance to Wisley Gardens, none just now can for a moment compare with Zephyrine Drouhin, a Hybrid Tea, of which there are some eight or ten plants, and which, as presented there, is emphatically one of the very best and most beautiful of all bedders. I noted it last year when it was so charming. This year again it is full of vigour, has ample foliage, and produces in abundance very perfectly formed double blooms of a bright cherry rose colour. The plants are about 18 inches in height. Could it more often be seen as growing on the Wisley sand, it would be ordered by thousands, I am sure. Would that we had more bedding Roses like it. But so many so-called bedders are of thin growth and give a poor effect. Near the Rose named is Mildred Grant, a grand exhibition Rose, but at Wisley. as a bedder, not in the same street. Mrs. J. Laing is very good there. In a Hampshire Rose garden the other day by far the finest bedder, out of scores so planted, was Frau Karl Druschki.—A. D.

Petunias.—After being somewhat under a cloud for several years, these flowers are evidently becoming very popular, and every year many new varieties are introduced, some, no doubt, distinct and improvements on existing sorts, others hardly worth specialising. The very large-flowered types make excellent plants for hanging baskets, vases and window-boxes, but they are not very good for beds. In the other positions a few twigs and long pegs keep them in just about the right natural order. A mixed strain is best for this planting, and the colours should be on the light rather than the dark side. A very fine sort for the purpose that came from seed was propagated for several seasons and then lost. The greater part of the flower was a very dark crimson, with sufficient bands of white between to form a striking contrast. Flowers like this with rich, pronounced colours are much more acceptable than those with a heavily veined, uncertain groundwork. The small-flowered section with flowers reminding one somewhat of Convolvulus minor are very useful for bedding. A sort with alternate bands of purple and white, that was very popular twenty years ago, is still one of the best. A newer variety known as Rosy Morn is very pleasing and an uncommon shade.—A. G. B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

SUMMER BEDDING.—All beds must be attended to occasionally, picking off dead flowers, staking and tying where necessary, and hoeing to keep the beds in trim order. Plants in carpet-beds should not be allowed to grow out of position; they must be pinched back to maintain a bold outline to the design.

Border Carnations.—To obtain good plants for next season early layering is essential, and as soon as the flowers are over the work should be commenced. The soil must be prepared first, and ought to consist of one-third loam, one-third leaf-soil and one-third sand, thoroughly mixed. The plants should be cleaned and surplus growths and flower-stems cut out, leaving only those growths that can easily be laid in. The ground round the plants should be slightly broken with a hand-fork before placing fresh soil on it. When the layering is finished, the plants must be watered daily late in the afternoon. Carnations layered in July root faster than those done in August, and if they are planted out early to get thoroughly established before late autumn, there is no reason whatever for potting and wintering the layers in frames.

Spring Bedding Plants.—If Wallflowers have been treated as advised in a former calendar, they will now require more room, and should be planted out where they are to remain till bedding-time comes again. The fact must be borne in mind that these require a rich soil. Also plant out Myosotis, Silene, Pansies, Alyssum, Arabis and all others that are being grown for spring bedding.

HARDY FRUITS.

Strawberries.—Sever the layers from the old plants as soon as possible and remove the pots from the beds. Early potting and planting are advocated, and the work should be commenced as soon as the plants recover themselves, which will be in a few days. The ground that is intended for new beds must be thoroughly prepared, given a good dressing of manure and made very firm before planting. Draw drills 2 feet apart and set out the plants 20 inches asunder. A warm border should also be planted to produce an early supply.

Figs.—The thin, useless growths may be cut out before the foliage becomes too dense, retaining the short-jointed fruiting wood.

KITCHEN GARDEN.

Spring Cabbages.—This is a very important crop, and the first sowing should be made at the beginning of the week. The following varieties are good, and may be relied on: Ellam's Early Dwarf, Flower of Spring, Wheeler's Imperial and Mein's No. 1. It is absolutely necessary to obtain a good strain of whichever sort is to be grown. Large, coarse-growing kinds should be avoided. Every precaution must be taken to guard the seed-bed against birds and other pests. As soon as the seeds are sown, the beds must be covered with fish-netting, and if the weather is hot and dry it is advisable to shade with mats.

Celery.—This will require copious waterings during dry weather, and should be treated liberally to liquid manure. Dusting with soot in the early morning is beneficial, and a small quantity of salt may be dusted along the trench occasionally before watering; it helps to keep down slugs.

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FOR THE NORTH AND NORTH MIDLANDS.

ROSE GARDEN.

BUDDING ROSES.—Any time during the next four or five weeks is a suitable period for this important and interesting work. It would take up too much space here to give details of the process; besides, it is so well explained by thoroughly competent writers in THE GARDEN that there is little advantage in going over it again. The earlier, in reason, the buds are inserted the better in our Northern climate. The main point about the selecting of a proper time for budding is to be sure that the bark is in a workable condition, so that it is easily raised and yet tough enough to ensure that in lifting it it does not get torn seriously.

Mildew.—This often begins to show during this month, and if checked at its first appearance it may be kept from spreading seriously. The old remedy, flowers of sulphur, is as reliable as anything, but its unsightly appearance is against its use in some gardens. If a little is rubbed on the first-noticed spots of the disease, it is very effective, and is less conspicuous than if a liberal quantity is dusted on the bushes.

PLANTS UNDER GLASS.

Primulas.—If sown at the time advised in this column, the plants will now be ready for their flowering pots. The 5-inch size is very suitable for the bulk of the plants, but any extra vigorous specimen may have a 6-inch pot. Be sure the pots and crocks are perfectly clean. Arrange the drainage with special care, as this is a plant that will not stand stagnant water at the roots. Good compost consists of three parts fibrous loam, two parts sweet leaf-mould, half a part wood-ashes or bruised charcoal, half a part spent Mushroom-bed manure, and half a part of sharp sand. The addition of a 6-inch potful of bone-meal and about half that quantity of Thomson's Plant Manure to each barrow-load of soil is a decided improvement. When potting, place the plants well down in the soil, as keeping them high up is the chief reason for damping off. Make moderately firm and stand the pots on a hard ash bottom in a cold frame.

Cinerarias.—These are now ready for potting up. Somewhat similar soil to that recommended for Primulas will answer nicely, but the chemical manure and bone-meal should be omitted. A cold frame with a northern exposure is best for this plant.

FRUITS UNDER GLASS.

Peaches.—The fruits in the earlier houses will now be all picked, and very vigorous measures must be adopted to keep the trees in a clean, healthy state. Thrips and red spider are very apt to gain a footing while the fruit is ripening, so immediately it is all gathered the syringe must be employed daily to rout the enemy. Later houses in which the fruits are maturing must have abundance of air both day and night, as, of course, must the houses denuded of fruit.

Melons.—These grow very rapidly now, and constant stopping and regulating of the shoots are necessary in the later houses. If a late crop has to be taken from the same house in which the earliest one matured, it ought to be thoroughly cleaned before planting takes place, or vermin will be very troublesome.

Vines.—Where ripe Grapes are hanging, considerable care is necessary to keep a pure, buoyant atmosphere. Avoid keeping the house shut close at any time, and while the roots must not suffer from want of water, a constantly damp border (on the surface) is bad for the fruit.

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THE GREENHOUSE.

NOTES ON ORCHIDS.

THE MILTONIAS.

MILTONIA VEXILLARIA. — This is a most beautiful and popular Orchid which produces such a fine display during the months of May and June, while at the Temple Show it may be seen in nearly every group. It is a most variable species, and a typical form may be described as having flat flowers, usually lilac rose to dark rose, with a large two-lobed lip, which is generally darker than other parts of the flower. Among the highly prized varieties are G. D. Owen (a richly coloured Orchid, and one of the best in cultivation), rubella, splendens, chelsiensis, Queen Alexandra and the Westonbirt variety. All are extremely floriferous, and often two spikes are produced from the same pseudo-bulb, each bearing from three to seven large blooms.

Miltonia Roezlii.—In general habit and shape this plant closely resembles the one named above, excepting that the foliage is not quite so wide. The flowers differ in colour, being white, with a purple blotch at the base of each petal, while at the bottom of the lip is a small area of yellow. A variety known as alba is almost pure white. Both are handsome subjects, but are not so largely grown as M. vexillaria.

Miltonia × *bleuana*.—Among hybrids this Miltonia occupies a high position. It was first raised by Alfred Bleu of Paris, and flowered in 1889 and afterwards in various collections in England. The parentage is M. vexillaria and M. Roezlii, and it is fairly intermediate between these two plants. A splendid form was figured in THE GARDEN of June 4, 1910, which gained the Royal Horticultural Society's first-class certificate for Mr. W. P. Burkinshaw of Hessle, and another magnificent variety has been named Stevensii.

CULTURAL NOTES.

As these Miltonias pass out of flower, and for several weeks subsequently, they must be kept slightly drier at the base till the young growth emits fresh roots, when any repotting may be done. M. vexillaria and its allies are more or less surface-rooting subjects, so fairly deep pans should be selected in preference to the ordinary flower-pot, which ought to be filled one-third of their depth with clean potsherds for drainage. A suitable rooting medium is made up of Osmunda fibre, peat, sphagnum moss and partly decayed Oak leaves in equal parts, the whole to be well mixed and broken up sufficiently fine to pass through an inch-mesh sieve, while a 6-inch potful of silver sand or crushed crocks may be added to every bushel of the compost with advantage. The soil should be pressed moderately firm about the roots, and when the operation is completed the surface should be on a level with the rim of the receptacle.

If any plants are sickly, all the decayed roots and soil must be removed, also the old pseudo-bulbs, two behind each growing point being ample, while each piece ought to be potted separately and carefully tended till it has recuperated. A healthy specimen does not require much disturbance beyond taking away the drainage and any sour material near the top, after which it is ready to be placed in a pan two sizes larger.

After the repotting is finished they can be arranged upon inverted flower-pots, so as to bring them near the glass, in a shady part of an intermediate house where the night temperature varies from 55° to 60° Fahr., and only given enough direct water to keep the surface moist; but the surroundings should be kept damp by occasionally syringing between the pots. Both top and bottom ventilation must be allowed, providing a strong current of air is not permitted to pass over the plants; but as the roots permeate the new soil, so can the ventilation and water supply be gradually increased.

To be successful with Miltonias as equable a temperature as possible should be the rule, and this is the reason why some growers place them among the Odontoglossums during the summer months and provide a few degrees more warmth in winter than is usual in the structure referred to. A gentle spray overhead when the weather is hot will prove beneficial; but as the dull, short days approach, this practice must be discontinued, although it should be borne in mind that steady progress is being made throughout the winter.

Small yellow thrips are sometimes troublesome, and are responsible for many weak, unhealthy plants, but if they are carefully dipped in such a way so as not to damage the leaves, say, every three weeks or a month, in a weak solution of XL All liquid insecticide, we shall secure that bronzy tint in the foliage which is a healthy sign that Orchid enthusiasts delight to see. After dipping the plants they should be laid on their sides till the solution has drained away, thereby preventing any reaching the roots or accumulating among the delicate leads. It will be noticed at times that the leaves adhere to each other during the process of development and, unless they are separated, become disfigured. This is best accomplished with the handle of a budding-knife. SENTINEL.

PRETTY PLANTS FOR GREENHOUSE SHELVES.

DURING the winter and early spring the shelves in greenhouses are generally well packed with plants of various kinds, because it is necessary to store great numbers for bedding-out purposes in the summer. After the plants are removed to frames, and, finally, to the flower garden, the shelves remain empty, or nearly so, throughout the greater part of the summer and early autumn. This is a pity, because there are so many beautiful plants that can be grown on shelves in the summer, and they help to furnish the structure. Amateurs ought each year to prepare a nice batch of plants to be placed on the shelves directly they are free and have been washed down.

Campanula attica (purple) and C. attica alba (white) are lovely plants for growing in small pans on the shelves. The spreading habit of these plants fits them for the position, as the shoots depend gracefully from both sides of the shelf, and as both varieties are free-flowering, a rich display of blossom will result. These Campanulas are suitable for sunny positions or shaded ones, and are consequently valuable for structures in various situations. Loam and leaf-soil in equal proportions, with a small quantity of rotted manure and sand to ensure porosity, should be used for the potting of the plants if they require it.

Browallia elata (blue) and B. elata alba (white), with B. speciosa major are also suitable for the purpose. The plants flower at midsummer and are exceedingly showy subjects; their habit is dwarf and just right for such narrow spaces as between the shelves and the roof glass. A similar compost to that recommended for Campanulas will answer for these plants also. Mimulus in variety may be grown, too. Mimulus compacta is a grand variety for pot culture. Torenia Fournieri, sky blue flowers, is another pretty plant. Then there are Ivy-leaved Pelargoniums for warm shelves, Fuchsias and Lobelias for cool ones, and Mignonette, suitable for any position almost all the year round. A few pots of Isolepis gracilis mixed with the other plants completes the furnishing of the shelves. AVON.

SOME GOOD AND INTERESTING NEW HARDY PLANTS.

THE ever-increasing interest that is being taken in hardy plants must be regarded as, to some extent, responsible for the introduction of many new species from China, which has been steadily going on for some years past. Occasionally at the Royal Horticultural Society's exhibitions one or more of these new plants is to be seen, when it creates something akin to a sensation, after which it is not perhaps seen again for a year or two, until its fortunate owner has enough stock to put on the market. Even when a new plant is shown in quantity it is difficult to accurately gauge its utility for the garden.

Other business having taken us to the Liverpool district recently, we paid a surprise visit to the Sealand nursery of Bees, Limited, the youthful but energetic firm whose offices are situated at Mill Street, Liverpool. Though a comparatively young firm, Messrs. Bees have already gained a good reputation as the introducers, through their traveller, Mr. Forrest, of several new hardy plants of unusual merit, notable among them being the Primulas littoniana and bulleyana. Those who visited Holland Park Show this year will, no doubt, remember the first-named, the flower-spike of which reminds one more of Orchis pyramidalis than a Primula.

At Sealand, which is situated on the borders of Flintshire and not far from the River Dee, the firm has secured 200 acres of good loamy land in an open position, and although this is not all under nursery cultivation at present, it is available as such whenever required. Naturally, the new Primulas claimed our attention first, and we were much charmed with the way they were growing. In a cleared, open space in a small wood, where the soil is of a clayey nature, large masses of these were planted, and here P. bulleyana was a beautiful sight indeed. Many of the specimens had been in this position for two years, and had formed enormous clumps, one plant that we specially noticed having seven large flower-spikes. The stems of these were nearly 2 feet high, and each stem had four whorls or tiers of the brilliant golden orange flowers fully opened. In the declining rays of the sun, which glinted through the trees, the colour of this Primula was magnificent. P. littoniana, already referred to, was not quite open in the wood, but in another part of the nursery we saw a large batch of it with the curious cone-shaped flower-spikes partly opened, the fully expanded blossoms being lilac coloured and the unopened flowers rich scarlet crimson. Primula beesiana is a new one, so that much has not been heard of it yet, but we think it will prove a welcome as the two named above. It may perhaps best be described as a purple-flowered P. bulleyana having the same robust habit and tiered flower stems as that variety. This, and also the new hybrid P. Unique were growing and flowering splendidly in the wood.

In the nursery proper we saw a vast array of new or rare beautiful hardy plants, and it would require the whole of one issue of THE GARDEN to enumerate them all. The following, however, specially appealed to us, though all are not new. Androsace bulleyana is a new species from China. The flowers, which are rather small and borne in the usual clusters on stems about 9 inches high, are bright scarlet. Anemone demissa is a fibrous-rooted species, with single white flowers and palmate foliage. Codonopsis ovata is a plant not well known, the pale slaty blue, bell-like flower

resembling in shape those of the smaller Campanulas. The interior of the bells is very beautifully marked with orange. It grows rather more than a foot high. Hypericum fragilis is a new dwarf plant with bright yellow flowers, and somewhat resembles H. polyphyllum. It will doubtless prove a useful rock plant. Campanula pulloides reminds us of C. pulla, the plants forming neat tufts some 6 inches high, the foliage being almost obscured by the rich violet blossoms. C. garganica alba, a white form of the well-known plant, was romping away over the soil, creating quite a sheet of white and green. Ajuga omniflorum is a dwarf, very free-flowering member of the Bugloss family, the sturdy growths being freely clothed with rich blue flowers.

The strain of Mimulus which we saw here was an exceedingly good one, and we think Messrs. Bees are fully justified in naming some of the more distinct varieties. Two that we much admired, and which were exceedingly free-flowered, were Major Bee, a Hose-in-hose blossomed plant, the colour being cream, blotched crimson. Alpinus Brilliant may be described as a good crimson-scarlet flower with an inconspicuous yellow throat; one of the most brilliant Monkey-flowers we have ever seen. The strain of that brilliant blue-flowered plant, Anchusa italica Dropmore variety, that Messrs. Bees have at Sealand is an exceptionally good one. At the time of our visit two long rows were creating a picture of rare beauty, the plants being about 4 feet high, much branched, and smothered with the large, brilliant blue flowers. We also noticed good collections of named Pyrethrums and many other first-class hardy plants, all of which were in good condition. In addition to hardy plants, Messrs. Bees have a large collection of the best standard and new varieties of Roses, as well as hardy ornamental-foliaged and flowering trees and shrubs. We were much interested in the way propagation is carried on at these nurseries, large cloches being used for the purpose. The propagating department resembled at first sight a section of an intensive culture garden. Apparently the system answers well, as the newly rooted plants of various kinds that we saw had a very robust and healthy appearance. We presume that visitors interested in rare hardy plants would be welcome at the Sealand nursery. This is reached from Liverpool by taking the ferry-boat to Seacombe, and then entraining on the Wirral Railway, changing at Shotton, by the Deeside, for Saughall Station. This station is also easily reached from Chester, being but four miles away. The nursery is about half-an-hour's walk from the station.

THE KITCHEN GARDEN

THE COLEWORTS AND THEIR CULTURE.

IN these days of wonder, when the vegetable-grower is kept in a continual state of expectancy anent the creation of yet another novelty in vegetable life which shall eclipse in size anything else of that particular variety ever seen before, he is apt to lose sight of some of his old favourites of years ago, with results disastrous in the extreme at a period when reserves are none too plentiful and conditions most unsuitable for the quick remedying of the evil.

Of all the vegetables under cultivation, we find none to which the above remarks apply more forcibly than to the Cabbages. True, we have some really good varieties of recent introduction, but by the time the first three months of the year are upon us the Cabbage patch is too frequently conspicuous by its absence. The spring-sown varieties have all been cut or, as is more often the case with many that remained uncut, they have succumbed to effects of excessive wet, frost and biting winds. The autumn-sown varieties are far from being ready for use, and, hardy as many of these appear to be at the commencement of the winter months, we view with consternation their diminishing ranks, the more so if a reserve of plants is not at hand under the friendly shelter of a south wall or cold frame.

On light soils, where drainage is usually good, vegetable-growers do not suffer so badly from weather conditions as do those of us who have to deal with heavy, badly drained, clayey soils; consequently, they have a greater choice of Cabbages to depend upon when vegetables are scarce. But for those who are not so fortunate as to soil, the choice is more limited, and it is to these growers I would suggest that a trial be given of the various hardy Coleworts that were more generally relied on for winter cutting in years gone by than appears to be the case in these days of "variety" and "size." Their culture is of the easiest, and their smallness enables a great number to be grown in a very small garden.

From a liberal sowing made at the end of June thousands of plants will be ready for putting out as the earlier crops of Potatoes or Peas are removed. No pricking out into nursery quarters is required, the plants being drawn as soon as they are ready to handle and dibbled into rows 1 foot apart and 9 inches apart in the rows as fast as ground becomes available. The largest plants are taken each time, and it will be found that plants are usually available from such a sowing right up to September. The first plantings in August will be ready for cutting about Christmas, and so on right up to April, when other vegetables are becoming available. If found advisable, every other row may be cut and every second head cut from the remaining rows first, or the whole patch may be cleared in rotation. The Coleworts are exceptionally hardy, and I have not seen a winter severe enough to decimate the whole crop, as we sometimes have been unfortunate enough to experience with regard to many other of the Brassicas. The Hardy Green Colewort is the more generally known, while the Rosette Colewort affords a suitable variation

J. C. W.

THE ROSE GARDEN.

HYBRID TEA ROSES FOR BEDS.

AN ideal bedding Rose should be able to display its blooms to the best advantage; that is, they must be borne upon erect stems. It should also be free-flowering and continuous, as far as possible, and then there should be brilliancy of colouring and perfect distinctness. I should like to have added perfection of form of the individual flower and also fragrance, but I am afraid if we insisted upon these two points too rigidly we should ban a large number of beautiful and useful Roses.

I have headed this article "Hybrid Tea Roses for Beds" because I take it that it is generally known how excellent are the Monthly Roses and the dwarf Perpetual Polyanthas for this purpose; but there are many gardens too limited in area to permit of the introduction of these in beds of a kind, to the exclusion of the more superb Hybrid Teas, the tribe that is undoubtedly the favourite one. Even in this now extensive group one hardly knows which to select, so lovely are they all; but I have appended a list of varieties that are all splendid for the purpose of bedding, producing as they do a wealth of blooms, which, in most cases, are also of such a quality as will enable one to cut them for house decoration if so desired. Although I say this I would not counsel the practice. Far better have a number of reserve plants for cutting purposes, locating them in rows in the kitchen garden or in a spare plot of ground where they may be well cared for, and if hard pruned they will furnish the house with abundance of long-stemmed flowers, now so indispensable for our floral decorations.

Where Roses are grown for garden decorative purposes, they should be planted in well-prepared beds in the first instance, as if this is neglected no amount of after-treatment will compensate for the defect. This last autumn I made a large plantation in a garden that possessed anything but a good natural soil for Roses; but on looking round the estate I espied a grand heap of material, the accumulation of some two or three years. This consisted of lawn edgings, leaf-soil and turfy

IRIS TINGITANA GROWING OUTDOORS IN SOUTH DEVON. (*See page* 350.)

loam. There was also a fine heap of well-decayed manure. I had all the old soil, to a depth of 3 feet, wheeled away, the bottom of the beds broken up, and then refilled with a mixture of two parts of the loam and leaf-soil and one part of the manure. This was done early in November, and after allowing it to settle for two weeks the plants were set out. Each received a good shovelful of a mixture of leaf-soil, turf edgings and rotted manure in equal parts, and they were dipped in thick mud and planted, taking care to make them very firm at the roots. About a week after planting the soil was well trodden around each plant and the beds levelled. No manure was given on top, but a slight earthing-up at the bases of the plants was done. In April the bushes were pruned back hard, most of them to within 4 inches or 5 inches of their base; and now, as I write, they are producing most delightful buds and blooms, some quite up to exhibition standard, which many of the beautiful bedding Roses are capable of doing, although they also yield a profusion of buds which are rarely removed, because I find, if the plants are in good soil, disbudding is not only wasteful but quite unnecessary.

Beds of Roses may be considerably improved by planting one or two half-standards of the same variety in the beds, or a good contrasting colour may be planted in half-standard form, say, dwarf plants of the beautiful crimson General Macarthur and half-standards of the golden yellow Mme. Ravary. The following are all really good bedding Hybrid Teas:

Reds and Crimsons.—Ecarlate, Richmond, Liberty, General Macarthur and Marquise de Salisbury.

Rose and Deep Pink.—Lady Battersea, Mme. J. Grolez, Farbenkönigin, Lady Ashtown, Laurent Carle and Camoens.

Pink.—Caroline Testout, La France, Mme. Abel Chatenay, Mrs. E. G. Hill, Killarney, Königin Carola, Mme. Leon Pain, Mme. Segond-Weber, Gustav Grunerwald, Princesse Mertchersky and Irish Glory.

White and Blush.—Prince de Bulgarie, Viscountess Folkestone, Admiral Dewey, Augustine Guinoisseau, K. A. Victoria, La Tosca, Pharisaer, Irish Beauty, Mme. C. de Luze and Mrs. T. Roosevelt.

Cream.—Mme. Pernet-Ducher, Antoine Rivoire and Mme. Jenny Guillemot.

Yellow.—Mme. Ravary, Le Progres, Mme. Melanie Soupert and Rayon d'Or (not yet in commerce, but it will be next season. It will surpass all yellow bedders).

Apricot and Coppery Shades.—Joseph Hill, Edu Meyer, Mrs. Aaron Ward, Mrs. A. R. Waddell and Irish Elegance.

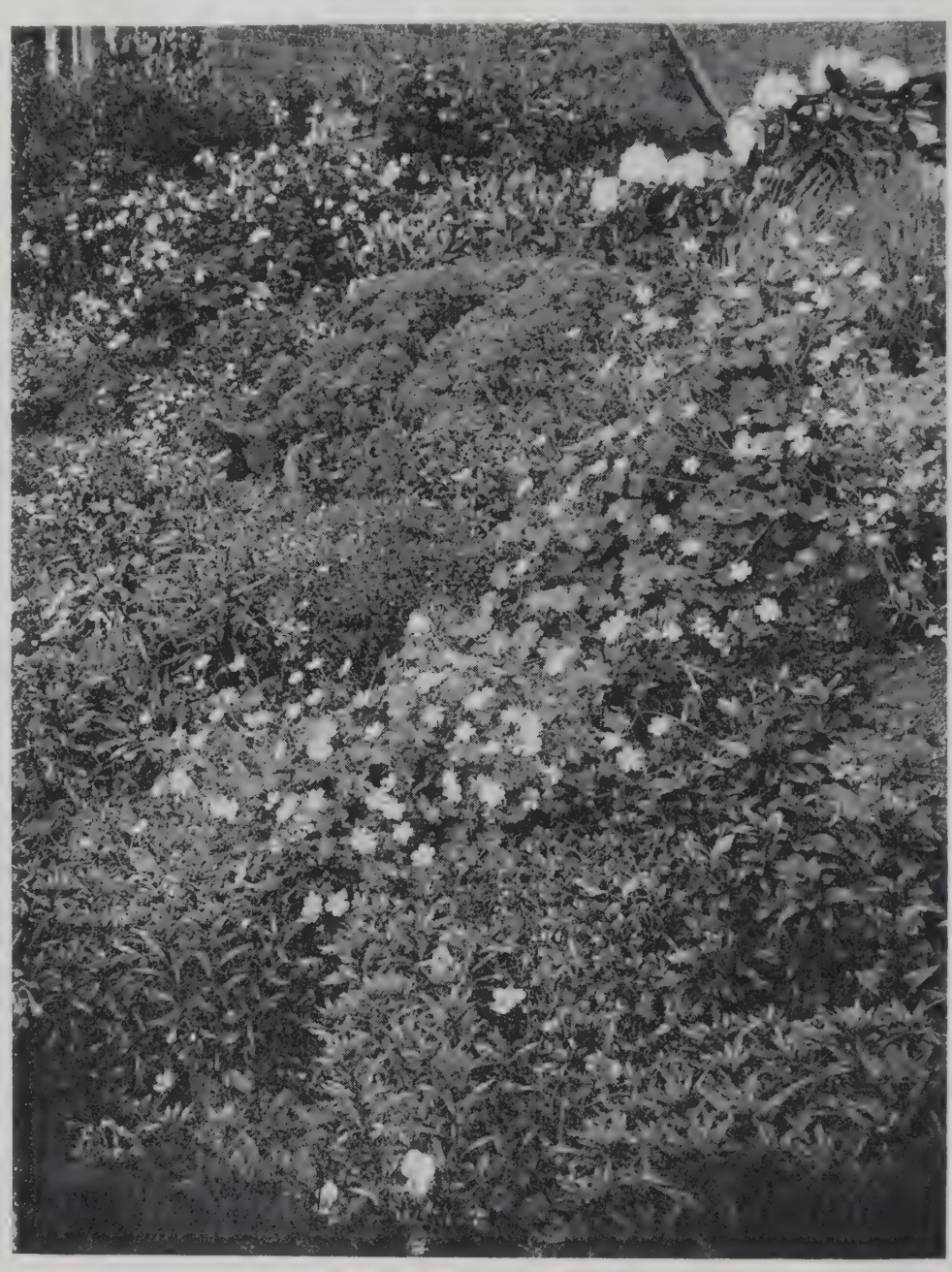
Salmon and Flesh Pink.—Betty, Countess of Derby, Earl of Warwick and Dean Hole.

Several of the newer Roses are undoubtedly good bedders, but one cannot recommend them until they become less expensive. There is undoubtedly a great future before good new Roses of this class, as there is a growing tendency to use them for bedding. P.

THE FLOWER GARDEN.

A PRETTY ROCK GARDEN.

THE accompanying illustration represents a portion of a Scottish rock garden constructed about five years ago and now well covered with plants. The idea of this part of the garden is a little dell with sloping banks on either side and a narrow path between. In its construction advantage was taken of the natural formation of the soil, for the slope of the path and mounds composed of soil from the foundations of the dwelling were thrown up on both sides, the principal object of that on the side which is shown in the illustration being to screen the drying green from the greater part of the garden. It rises at an angle of about 45°, the soil being a good loam, well lightened with stones and some sand. Rough terraces of soil, supported by freestone left from the building of the house, were formed, and in these a number of free-growing and other alpines were planted. Now there is but little of the stone seen save in the winter months, and the slopes are almost entirely covered with verdure and flower.



A SIMPLE ROCK GARDEN IN SCOTLAND.

Among the best plants for such a rock garden are those employed in the part shown. Rhododendrons crown the summit, and a good mass of the graceful, if spreading, Euphorbia Cyparissias is to be seen near the summit. This is pretty with its graceful foliage and its yellow flowers, the foliage passing off almost red in autumn.

The Moss Pinks or dwarf Phloxes, such as those of the setacea section, form fine mounds in spring, and a large plant of Geranium pyrenaicum, seen in the illustration, trails like a fountain down the bank.

Alyssums, Cerastium arvense, Arenaria montana, Violas of various species, Campanulas and other free-flowering plants constitute a great part of the display; but Snowdrops, Scillas, Anemones, such as blanda, apennina and robinsoniana, Narcissi and other bulbous plants are largely employed for other seasons. In late autumn Colchicum speciosum album and other Meadow Saffrons brighten it up, and an almost constant supply of bloom is thus afforded. The portion illustrated faces almost due south, and receives a good deal of sun during the greater portion of the day. S. ARNOTT.

IRIS TINGITANA.

ON January 17, 1903, a photograph was reproduced in THE GARDEN of Iris tingitana flowering in a Cornish garden. Though an exceedingly beautiful species, it is rarely met with in this country, a fact that is doubtless due to the difficulty generally experienced in flowering it. Numerous queries appear from time to time asking for information as to its successful culture, and very rare are the notes recording its blooming in the British Isles. The photograph alluded to was taken at the end of March, but Iris tingitana is very erratic in its season of blooming, for I have had expanded flowers as early as January, while this year the blossoms were not at their best until the third week in April, when, fortunately, they all bloomed simultaneously. The Cornish plants were growing in deep porous soil at the foot of a wall facing east, and there were seventeen flowers showing in a large bed. Mr. E. H. Jenkins, writing later, said, "The illustration of the beautiful Tangier Iris is remarkable," and in reference to my statement that the ground was well manured, remarks, "What is news to me is the apparent fact of this species being almost a gross-feeding plant and, if this has not been given in the past, a valuable lesson in rare plant cultivation has been divulged by the publication of the illustration in question and by the valuable notes accompanying the same."

A few years ago I had a conversation with Mr. Elwes on the cultivation of rare foreign plants, and he expressed the opinion that in this country they required rich soil to make up for the change in temperature, instancing this Iris, which he said around Tangier grew in sand, but that it was useless to grow it in sand in England, where its health and free-blooming qualities could only be maintained by giving it rich food. Having grown Iris tingitana for some years without flowering it, I determined to follow Mr. Elwes's suggestion, and placed a deep layer of manure 8 inches below the surface, while the upper soil was mixed with an equal proportion of old Mushroom-bed manure, so that the ground was exceedingly rich. The next spring the plants flowered well, the following year thirty bulbs produced twenty-nine flower-spikes, and on another

THE NATIONAL ROSE SHOW.

(METROPOLITAN SECTION.)

THIS important exhibition was held in the Royal Botanic Gardens, Regent's Park, London, N.W., on Friday, the 8th inst., when there was a truly marvellous display of blooms, notwithstanding the exceedingly bad weather which had been experienced throughout the country just previously. Teas and Hybrid Teas were in the best condition, Hybrid Perpetuals showing the effects of the weather most. Some good new varieties received recognition from the judges, and these will be found described later. Great praise is due to the hon. secretary, Mr. E. Mawley, and Mr. E. F. Hawes, superintendent of the gardens, for the excellent arrangements.

Nurserymen's Classes.

General Section.—There were six exhibits staged in the nurserymen's championship class for seventy-two blooms, distinct, the champion trophy this year going to Ireland, Messrs. Alex. Dickson and Sons of Newtownards winning it with a wonderful lot of bright, clean flowers. John Stuart Mill, Gustave Piganeau, Marie Baumann, Alex. Hill Gray, S. M. Rodocanachi, John Ruskin, Muriel Grahame, Mrs. Cornwallis West, Ulrich Brunner, Mrs. E. Mawley, Mrs. T. Roosevelt, Mildred Grant, Mrs. W. J. Grant, Bessie Brown, Mrs. David McKee and Ulster all called for special mention in this grand display. Second prize went to Messrs. D. Prior and Son of Colchester, the flowers here also being large and good. Mrs. E. Mawley, Countess of Annesley, Dr. O'Donel Browne, Horace Vernet, Docteur André, Richmond, Bessie Brown, Königin Carola and Mrs. T. Roosevelt were in specially good condition. Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were third, Marie Baumann, Ulrich Brunner and White Maman Cochet being shown in splendid form here. Fourth honours went to Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, whose flowers were also a praiseworthy lot.

For four trebles, distinct, the first prize was well won by Messrs. A. Dickson and Sons, Limited, Newtownards, who had a wonderful lot of clean flowers. Ulrich Brunner, Alfred Colomb, Victor Verdier, John Ruskin, Marie Baumann, Mrs. R. G. Sharman Crawford, Duchesse de Morny, Gustave Piganeau, Mrs. Herbert Taylor (new blush pink), Lyon, Frau Karl Druschki and Marquise Litta were all in first-class form in this exhibit. Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were second, the flowers here also being of very good quality. We specially noticed extra good blooms of Ben Cant, Suzanne Marie Rodocanachi, Helen Keller, G. C. Waud, Lyon and Earl of Dufferin. Messrs. D. Prior and Son of Colchester were third, the flowers here also being of good quality. There were four entries in this class.

For forty-eight blooms, distinct, the Colonial Challenge Cup and first prize were won by Mr. G. Prince, Longworth, Berks, who had large flowers of good colour. Lyon, Dean Hole, J. B. Clark, Captain Hayward, Earl of Warwick and G. C. Waud were varieties that stood pre-eminent. Mr. Hugh Dickson, Belfast, was placed second, the flowers in this group also being large and very clean. Lady Mary Fitzwilliam, Joseph Hill, Mme. Segond - Weber, Mme. Melanie Soupert and Captain Hayward all called for special mention. Mr. H. Drew, Longworth, was a good third. The competition in this class was very keen indeed, no fewer than nine exhibits being staged.

In a similar class for twenty-four blooms, Mr. J. Mattock, Headington, Oxford, was placed first, his flowers being very good throughout. Earl of Warwick, J. B. Clark and C. J. Grahame were three of the best. Second honours went to J. Pigg, Esq., Royston, Herts, who showed Liberty, Mrs. W. J. Grant and Lyon in perfection. Messrs. Perkins and Sons, Coventry, were third. Nine entries were staged in this class.

Eight competitors tried conclusions in the class for sixteen trebles, distinct, Messrs. G. and W. H. Burch, Peterborough, being placed first for a most praiseworthy collection. Ulrich Brunner, J. B. Clark, Mrs. J. Laing and Horace Vernet called for special mention. Second honours went to Mr. G. Prince, Longworth, who had splendid flowers of Marie Baumann; and Mr. W. Leggett, West Bergholt, Colchester, was third.

There were six exhibits in the class for sixteen distinct varieties of Hybrid Teas, to be selected from the society's list. Mr. Hugh Dickson, Belfast, was the champion here, his flowers being rather small and weather-beaten. Laurent Carle and Richmond were the two best. Second prize went to Mr. J. Mattock, Headington; and third to Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester.

Tea and Noisette Section.—For twenty-four blooms, distinct, there were three entries, first prize being won by Mr. George Prince, Oxford, who had a clean lot of flowers. Mrs. E. Mawley, White Maman Cochet, Muriel Grahame, Mme. Jules Gravereaux and Miss E. Brownlow were worthy of special mention. Mr. H. Drew, Longworth, was second, his Mrs. E. Mawley and Mme. Jules Gravereaux being excellent. Third prize went to Messrs. Frank Cant and Co.

In a similar class for twelve blooms there were six entries, Mr. John Mattock, Headington, Oxford, being first. In his box we specially noticed Medea, Mme. Jules Gravereaux and Maman Cochet in splendid form. Messrs. J. Burrell and Co., Cambridge, were a good second, a fine bloom of Mrs. E. Mawley being shown here. J. Pigg, Esq., Royston, Herts, was third, Mrs. E. Mawley and Mme. Jules Gravereaux being conspicuous.

For fourteen trebles, distinct, to be shown in vases, there were four entries, Mr. George Prince being first with a good lot of flowers. His blooms of Molly Sharman Crawford, White Maman Cochet, Mme. J. Gravereaux and Mrs. E. Mawley were exceptionally good. Mr. H. Drew was placed second, his flowers being much smaller. Messrs. Frank Cant and Co. were third.

Exhibition Roses in Vases.—For twelve distinct varieties, seven blooms of each, to include not more than six varieties of Teas or Noisettes, there were four entries staged. Messrs. A. Dickson and Sons, Newtownwards, were a splendid first, their blooms being some of the very best in the show. Mary Countess of Ilchester (a new variety of carmine-crimson colour), A. K. Williams, Horace Vernet, Mildred Grant, Mrs. W. J. Grant and Mrs. Theodore Roosevelt were superb and worthy of the highest praise. Messrs. D. Prior and Son, Colchester, were a good second, the arrangement here being very good indeed. Lady Ashtown, Liberty and Mrs. W. J. Grant were outstanding varieties. Third honours were won by Messrs. J. Jefferies and Son, Limited, Cirencester.

For nine distinct varieties of Teas or Noisettes three competitors tried conclusions, Mr. George Prince coming out on top. His flowers of Mrs. E. Mawley were very large and good, and other notable sorts were Medea, Molly S. Crawford and Bridesmaid. Second and third prizes were won respectively by Mr. J. Mattock and Mr. H. Drew.

Section for Decorative Roses.—For thirty-six distinct varieties, not fewer than three or more than seven sprays of each, competition was very good, Mr. J. Mattock, Headington, being first with a wonderful display. Maharajah (crimson single), Gustave Regis, Hebe's Lip and Mme. Ravary were all in fine form here. Second honours went to Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, whose flowers of Agalia, Fabvier and Mrs. Alfred Tate were of more than usual merit. Mr. G. Prince, Longworth, was third.

In a similar class for eighteen varieties, Mr. C. Turner, Slough, was first with a beautiful lot of flowers, conspicuous among them being Mme. Ravary, Gustave Regis, Le Progres and A. Müller. Second and third prizes here were won respectively by Messrs. W. Spooner and Son, Woking, and Mr. J. Barron, Oadby, Leicester, both showing flowers of excellent quality.

For eighteen distinct varieties of summer-flowering Roses (Hybrid Perpetuals, Hybrid Teas, Teas and Chinas not admissible), the premier award went to Messrs. Frank Cant and Co., Messrs. W. Spooner and Son and Mr. C. Turner following in the order named.

For eleven distinct varieties, not fewer than three sprays of each, there were three entries, Mr. G. Prince, Longworth, being placed first for a splendidly arranged lot, among which the most conspicuous were Mme. Ravary, Comtesse du Cayla, Mme. Abel Chatenay and Trier. Messrs. George Jackman and Sons, Woking, were a good second, the arrangement, however, being not quite so good. Zephyrine Drouhin, Mme. Chedane Guinoisseau and Betty were superb in this group. Third prize went to Messrs. G. Mount and Sons, Canterbury.

For six distinct varieties of new Roses, offered in the British Isles for the first time in the spring of 1906, Mr. G. Prince was first, showing good examples of Marquise de Sinety and Flower of Fairfield. Messrs. Paul and Son, Cheshunt, were second, Rosalina, Goldfinch and Shower of Gold being conspicuous here. Mr. J. Mattock was third, his Marquise de Sinety calling for special mention.

Groups of Roses.—For a representative group of Roses placed on the floor in a given space, plants and cut blooms allowed, Messrs. G. Paul and Son, Cheshunt, won the gold medal with an attractive display, Shower of Gold (yellow rambler), Paul Transon, Coquina, White Dorothy Perkins, Mrs. A. R. Waddell, Mrs. David McKee and Mrs. S. G. Sharman Crawford all being noteworthy varieties in this exhibit. Hobbies, Limited, Dereham, Norfolk, were the only other exhibitors, winning second prize with a beautifully designed group, the ramblers and weeping standards being particularly praiseworthy. The arches, with suspended baskets filled with Roses, attracted a great deal of attention.

In the class for a representative group of cut Roses, to be arranged on staging of a stated size, competition was very good, and the exhibits were generally very attractive. First honours went to

Mr. J. Mattock, Headington, Oxford, for a well-designed and thoroughly representative display. Pillars of the rambler section formed a background, and in front such sorts as Lyon, Mme. Melanie Soupert, Gottfried Keller and the single Lady Curzon were tastefully displayed Second honours went to Messrs. W. and J. Brown, Peterborough, for a similarly arranged group, Mrs. J. Laing, Mrs. W. J. Grant and Mrs. Peter Blair being in good form. Messrs. G. Mount and Sons, Canterbury, were placed equal second with Messrs. Brown in this class, the new Lady Hillingdon, Frau Karl Druschki and Liberty being in splendid condition. An extra prize was awarded to Mr. F. M. Bradley of Peterborough for an attractive display.

Open to Nurserymen and Amateurs.

For eighteen blooms of any crimson Rose, to be shown in the society's Bamboo stands, eight exhibits were staged, first prize going to Mr. W. Bentley, Leicester, for a wonderful stand of J. B. Clark. Mr. H. Drew, Longworth, was second; and Messrs. D. Prior and Sons, Colchester, third, with Marie Baumann.

In a similar class for any white or yellow Rose, first honours were won by The King's Acre Nurseries, Limited, Hereford, with a fine stand of Frau Karl Druschki. Second prize went to Messrs. B. R. Cant and Sons, Colchester, for good examples of Niphetos; and Mr. G. Prince, Longworth, was third with Lyon. Nine stands were staged in this class.

In a similar class for any Rose other than crimson, white or yellow, competition was very keen indeed, a dozen or more stands being shown. First prize here was appropriated by Messrs. D. Prior and Son, Colchester, for very large flowers of the blush-coloured Mrs. T. Roosevelt. Mr. W. Bentley, Leicester, was second with the same variety; and Messrs. R. Harkness and Sons, Hitchin, third with Mrs. J. Laing.

Ten exhibits were staged in the class for nine blooms of any new Rose, first prize being won by Messrs. A. Dickson and Sons, Newtownards, with a fine box of the creamy white, flushed yellow variety, Walter Speed. Second prize went to Mr. Hugh Dickson, Belfast, for the crimson Leslie Holland; and Messrs. Perkins and Sons, Coventry, and Messrs. S. McGredy and Son, Portadown, Ireland, were equal third, showing respectively Lyon and Ethel Malcolm.

For twelve blooms, distinct, of new Roses offered for sale for the first time in the British Isles in the spring of 1907 and subsequently, competition was very good, Mr. Hugh Dickson, Belfast, being first with a fine lot of flowers. Notable among them were Commander Jules Gravereaux, crimson; Leslie Holland, crimson; Miss Cynthia Forde, rich pink; Walter Speed, creamy yellow; and Mrs. E. J. Holland, blush pink. Second prize went to Messrs. Frank Cant and Co., who had excellent examples of Harry Kirk, yellow; Mrs. Harold Brocklebank, cream; Mme. P. Euler, cerise; and Comtesse Icy Hardegg, cerise. Messrs. A. Dickson and Sons were third, their stand containing a fine flower of Lyon.

Two exhibits were staged in the class for twelve vases of new seedling Roses, first prize going to Mr. Hugh Dickson, Belfast, who had John Bell, crimson; Countess of Shaftesbury, bright cerise pink; Lady Pirrie, scarlet and buff; Archibald Gray, crimson; and Mrs. C. E. Allan, buff yellow and flesh pink, in good condition. Second prize went to Messrs. Alex. Dickson and Sons, Newtownards, who had fine examples of Lady Petrie, pale yellow; H. V. Machin, crimson; and Lady Greenall, buff and cream.

Decorative Classes.—For an arch decorated with long sprays of not more than two varieties of climbing Roses, Mr. C. Turner, Slough, was first with a wonderful arch clothed solely with that old favourite, Turner's Crimson Rambler. Second prize went to Messrs. G. Paul and Son, Cheshunt, who had good examples of Blush Rambler; Messrs. J. Jefferies and Sons, Limited, Cirencester, being third with an arch covered with Mrs. Flight and Wallflower.

There were seven entries for a set of three sprays of Roses, first prize being won by Mr. O. G. Orpen, West Bergholt, with a delightful trio. Messrs. W. and J. Brown, Peterborough; Mr. J. Mattock, Headington; and Messrs. F. H. Cooke, Birch, Colchester, followed in the order named.

For twelve distinct varieties of single-flowered Roses there were four entries, first prize being won by Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, with a splendidly arranged lot of flowers. Joseph Billard, Lady Curzon, Morgenrot and Irish Glory were conspicuous sorts. Mr. G. Prince, Longworth, was second, Andersonii and Gottfried Keller being in good form here. Third prize went to Messrs. G. Paul and Son, Cheshunt.

Four entries were staged in the class for three baskets of bedding Roses, Mr. J. Mattock, Headington, winning the president's prize with splendid examples of Mme. Abel Chatenay, Betty and Marie van Houtte. Messrs. G. and W. Burch, Peterborough, were second with Mme. Ravary, Richmond and Mme. Abel Chatenay; and Mr. J. Barrow, Oadby, Leicester, was third with Ecarlate, Mme. Abel Chatenay and Mme. Ravary.

For a bowl of cut Roses (open to ladies only), Mrs. Barrow, Oadby, Leicester, was first with a beautiful arrangement of Irish Elegance; Miss M. Foden, Hemel Hempstead, being second with Mme. Abel Chatenay; and Mrs. E. D. Park, Loudwater, third, with a bowl of mixed flowers.

Amateurs' Classes.

General Section.—The seven entries for the champion trophy for thirty-six blooms, distinct varieties, made a fine display, the flowers in most stands being of a high order of merit, considering the weather of late. First prize was again won by the veteran grower, Mr. E. B. Lindsell, Bearton, Hitchin, who had a grand series of blooms. Specially good were Ulrich Brunner, J. B. Clark, Mildred Grant, Marie Baumann, William Shean, Mrs. T. Roosevelt, Horace Vernet, Hugh Dickson, Gustave Piganeau, Killarney, Duke of Wellington, Yvonne Vacherot and A. K. Williams. Second prize was deservedly won by Mr. F. Dennison, Cranford, Leamington, who had grand examples of Mrs. John Laing, Mrs. W. J. Grant, Mildred Grant, Mrs. Theodore Roosevelt, C. J. Grahame and Helen Keller. Mr. Conway Jones, Hucclecote, Gloucester, was third with a meritorious series; and the Rev. T. G. W. Henslow, Stanton St. Quintin, Chippenham, was fourth.

In the class for twenty-four blooms, distinct, there were again seven entries, this being an excellent competition. Mr. Lindsell again secured leading honours with a capital lot of blooms, in which the following varieties were very beautiful: Mildred Grant, Duchess of Bedford, Horace Vernet, Hugh Dickson, Mrs. John Laing, Mrs. Theodore Roosevelt and Gustave Piganeau. Second prize was secured by Mr. G. A. Hammond, Cambrian House, Burgess Hill, Sussex, who had rather smaller but very even blooms. A. K. Williams, Comte Raimbaud and Horace Vernet were charming. Mr. F. Dennison was third with a good series.

In the class for twelve trebles, Mr. Conway Jones led the five entries with a beautiful, bright and well-finished lot of blooms. A. K. Williams, Mrs. John Laing, J. B. Clark, Gustave Piganeau and Frau Karl Druschki were the better varieties. Second prize was secured by Mr. A. Tate, Downside, Leatherhead, who had Dupuy Jamain, Horace Vernet and Rev. Alan Cheales in exceptional form. Third prize was secured by the Rev. T. G. W. Henslow, who had some very pretty and good specimens.

In the class for nine blooms of any Rose except Tea or Noisette, there were no fewer than nine entries, a beautiful set of Frau Karl Druschki winning premier honours for Mr. E. M. Eversfield, Denne Park, Horsham. With Mrs. Theodore Roosevelt Mr. E. B. Lindsell was second; and the Rev. T. G. W. Henslow was third with beautiful examples of La France.

For the cup offered by Messrs. Hobbies, Limited, for growers of fewer than 3,000 plants, there were three entries, Mr. E. M. Eversfield again leading with a bright and beautiful series. Suzanne Marie Rodocanachi, Charles Darwin, Frau Karl Druschki, Horace Vernet (superb) and Mrs. John Laing were all good. Second prize was secured by the Rev. J. A. L. Fellowes, Attleborough, with a fair lot of blooms; and Mr. W. Boyes was third with smaller flowers.

In the class for twelve trebles there were only two entries. Mr. Eversfield was again first, showing, among others in good form, Ulrich Brunner, Hugh Dickson, Mrs. John Laing, J. B. Clark, Lady Ashtown and Frau Karl Druschki. The Rev. J. A. L. Fellowes was placed second with a less meritorious series.

There were only two entries in the class for nine blooms of any Rose except Tea or Noisette. Mr. Eversfield was again to the fore with Frau Karl Druschki. Mr. W. Boyes was second with Bessie Brown.

For twenty-four blooms, distinct, open to growers of fewer than 2,000 plants, for the Captain Christy Challenge Cup, Mr. W. J. Thorpe, Hucclecote, near Gloucester, was placed first with a bright and fresh lot of blooms. J. B. Clark, Comte de Raimbaud, Maman Cochet, Horace Vernet and Mrs. John Laing were his best varieties. Second prize was secured by Mr. W. R. Hammond, Grovelands, Burgess Hill, with a charming box of blooms. Avoca, Mrs. John Laing, Marie Baumann and Souvenir d'Elise were very pretty. Third prize was won by Mr. W. O. Times, Hitchin. There were five entries in this class.

The six exhibits in the class for eighteen blooms, distinct, were a very fine lot, and the exhibit of Mr. G. R. Bonner, Tillingbourne, Barnwood, Gloucester, was beautiful indeed. J. B. Clark, Gladys Harkness, G. C. Waud, Duchess of Bedford, A. K. Williams, Hugh Dickson and Horace Vernet were good. Second prize was secured by Dr. T. E. Pallett, Earl's Colne, Essex, with a bright though less finished box of blooms. C. J. Grahame, Mrs. John Laing and Helen Keller were in grand form. Third prize was awarded to Mr. Gulliver Speight, Market Harborough, with an attractive exhibit.

No fewer than six exhibits were staged in the class for eight trebles, that which came from Mr. W. O. Times obtaining leading honours, J. B. Clark, Mrs. Theodore Roosevelt, Gustave Piganeau, Mrs. E. Mawley and Mrs. John Laing being his best examples. Mrs. Fortescue, Dropmore, Maidenhead, was placed second with a charming series, Lady Ashtown, Mrs. John Laing, White Maman Cochet and Maman Cochet being the best flowers. Larger though less finished blooms secured third prize for Mr. W. J. Thorpe.

The nine exhibits of six blooms of any Rose except Tea or Noisette made a most interesting display. Mr. W. R. Hammond was placed equal first with pretty examples of Dean Hole. The other first prize-winner was Mrs. C. C. Williamson, Wilstead, Canterbury, with good examples of Frau Karl Druschki; and third prize was awarded to Mr. W. O. Times with Mrs. John Laing.

To growers of fewer than 1,000 plants, the class for twelve blooms, distinct, is always a most

KELWAY'S NEW DELPHINIUMS
BADEN POWELL, SIR J. G. WARD, LADY FAIR

interesting competition. In this instance there were no fewer than nine entries. First prize was secured by Mr. C. F. H. Leslie, Epscombs, Hertingfordbury, Herts. Mrs. Edward Mawley, J. B. Clark, Dean Hole, Mme. Melanie Soupert and Mme. Jules Gravereaux were the more noteworthy in this exhibit. Dr. Charles Lamplough, Alverstoke, had a good exhibit for second prize. Caroline Testout, Mildred Grant and Bessie Brown were very good blooms. Third prize was awarded to Mr. M. Whittle, 60, Belgrave Avenue, Leicester.

Thirteen entries for six blooms of any Rose except Tea or Noisette was very good indeed, first prize being won by Mr. A. C. Turner, The White House, Walton-on-Thames, with nicely finished blooms of Frau Karl Druschki. With Dean Hole Mr. G. Moules, Hitchin, was placed second, and with beautiful examples of Frau Karl Druschki obtained third prize.

Open to growers of fewer than 750 Roses, the class for twelve blooms, distinct, brought out six competitors. First prize was awarded to the Rev. L. C. Chalmers Hunt, Willian Rectory, Hitchin, Herts, with a bright and interesting series. Second prize was secured by Mr. H. L. Wettern, Waratah, Sanderstead, with a meritorious box of blooms; and third prize went to Miss B. H. Langton, Raymead, Hendon, N.W.

There was only one entry for six blooms of one variety in this section, this being placed first. The variety shown was Mrs. John Laing.

There were three entries for six trebles in Divisions F and G, a beautiful series winning premier honours for Dr. Charles Lamplough. Mildred Grant, Frau Karl Druschki, Dean Hole and Hugh Dickson were his best flowers.

For the Grahame Memorial Prize, for nine blooms, distinct, open to growers of fewer than 500 plants, there were seven entries. Premier honours were won by Mr. H. W. Richards, Ryde, with beautiful examples of Marie Baumann, Caroline Testout and Frau Karl Druschki. Second prize was awarded to Mr. W. Upton, 16, Claremont Street, Leicester, who had grand blooms of Horace Vernet, Mrs. John Laing, J. B. Clark and Mildred Grant. Third prize went to Mr. V. Rolt, Brook House, Storrington, with a very good exhibit.

In the same division for six blooms, Mr. John Stuart, Broomhill, Mount Park, Harrow, led the four competitors, having excellent flowers. Mr. J. Gibb, Westfield, Reigate, was second; and Mr. H. Clinton Baker, Bayfordbury, was third, his blooms of J. B. Clark and Mildred Grant being noteworthy.

In the class for six blooms of one variety there were no fewer than nine exhibits. The leading honours were secured by Mr. W. Upton with Florence Pemberton; Mr. J. Gibb, second, with Captain Hayward, of exceptionally good colour; and the Rev. F. R. Burnside, Great Stambridge Rectory, third, with Frau Karl Druschki in good condition.

In Class 50, for twelve blooms, distinct (open to growers in Divisions F, G and H), there were seven exhibits. A superb box of blooms won first prize for Mr. M. Whittle, who had in really excellent form J. B. Clark, Countess of Caledon and Mrs. John Laing. Second prize was won by Mr. George Moules with a neat and even box of blooms; and third was secured by Mr. C. F. H. Leslie with a really excellent exhibit.

In the Ben Cant Memorial Class for nine blooms, distinct varieties (open to growers of fewer than 350 plants), there were no fewer than sixteen exhibits, and these proved most interesting. First prize was won by Captain R. Kilbe Stuart, Evendene Ho, Colwall, Herefordshire, with a really magnificent lot of blooms. Frau Karl Druschki, Marquise Litta, Mrs. R. G. Sharman Crawford, Helen Keller, Caroline Testout, Mrs. John Laing and Dupuy Jamain were the better flowers. Second prize was well won by Dr. F. G. Hayes, Dunster, Somerset, who had Gladys Harkness, J. B. Clark, Frau Karl Druschki and Marquise Litta in fine form. A fine box of blooms secured third prize for Mrs. E. A. Moulden, Bandea, Stevenage.

The ten entries for six blooms of one variety of any Rose except Tea or Noisette brought out a spirited contest. With Frau Karl Druschki Mr. Alan Searle, Ashton Lodge, Bassett, Hants, was deservedly first. Mr. F. J. Nightingale was placed second with Mrs. John Laing; and Mr. E. F. Brown third with Frau Karl Druschki.

There were seven entries for four trebles, a nicely finished lot winning first prize for Dr. F. G. Hayes. Eclair, Countess of Caledon, Mrs. Theodore Roosevelt and Frau Karl Druschki were the varieties shown. Second prize was won by Mr. W. Upton, running the leaders very close indeed; and third prize went to Mr. Alan Searle with smaller, though fresh flowers.

Classes for growers of less than 200 plants are always most interesting to a great many supporters of the National Rose Society, and the present season's display was no exception to the rule.

For six blooms, distinct varieties, there were seven entries, first prize being won with pretty flowers from the Rev. G. F. Kershaw. White Maman Cochet, Dupuy Jamain and La France were the best. Mr. Richard House, Adds Farm, Woburn, near Maidenhead, was second. Liberty and Mrs. John Laing were good. Third prize was won by Mr. W. E. Pedley, Hillside, Hoddesdon.

Class 56, for four trebles, had only two representatives, the Rev. G. F. Kershaw being placed first with a capital lot of blooms, and Mr. F. A. George, Red Hill, Worcester, second with a bright series.

For six blooms of one variety only there were no fewer than eight exhibits. With good examples of Frau Karl Druschki Mr. Robert House was in the leading position. With Mrs. J. Laing Mr. A. Wilkinson, St. Olaves, Granville Road, North Finchley, secured second prize; and with Frau Karl Druschki Mr. F. Borland, Brunswick Road, Sutton, was placed third.

Metropolitan Division.—For Roses grown within eight miles of Charing Cross, the chief class was one for six blooms, distinct, for the challenge cup offered by Mr. E. R. Smith. First prize was won by Mr. H. W. Whitmee, The Briars, North Finchley, with good examples of A. K. Williams, Frau Karl Druschki, George Laing Paul and Florence Pemberton. Second prize was placed to the credit of Mr. W. E. Martin, 1, Alexandra Grove, North Finchley, Hugh Dickson and Mrs. John Laing being his best blooms. Third prize went to Mr. Howard Williams, Willow Cottage, North Finchley, Mrs. John Laing and Countess of Caledon being conspicuously good.

Division for New Members.—The principal class in the new members' division was for twelve blooms, distinct varieties. There were six entries, and first prize was well won by Captain R. Kilbe Stuart with grand blooms of Tom Wood, Mrs. John Laing, John Ruskin and Marquise Litta. Second prize was awarded to Mr. H. L. Wettern with a bright and attractive box of blooms. Third prize was secured by Mr. D. H. H. Church, Fairleigh View, Darlington.

The Harkness Cup was offered in a class for twelve blooms, distinct (open to all amateurs), and was well contested. There were eleven exhibits. First prize was won by Mr. R. Foley Hobbs with a nicely finished stand of blooms. C. J. Grahame, Mrs. Theodore Roosevelt, Charles Lefebvre and Hugh Dickson were noteworthy. Dr. F. E. Pallett was placed second with a grand lot; and Mr. E. M. Eversfield was awarded third prize.

The class for twenty-four blooms, distinct, also open to all amateurs, was a very praiseworthy effort by the five competitors. Mr. E. M. Eversfield was placed first with a neat and fairly even series; Mr. G. R. Bonner second; and Mr. Gulliver Speight was awarded third prize.

The Hammond Cup, for six blooms of new Roses, distinct, brought out six competitors. Leading honours went to Mr. Conway Jones with good blooms of Molly Sharman Crawford, Lyon Rose, Laurent Carle, Lady Ursula, George W. Paul and Albatross. Mr. F. Dennison was awarded second honours, this grower having a good bloom of Gloire de C. Guinoisseau; and third prize went to Mr. W. Boyes.

Class 70, for a collection of Roses in not more than seven varieties, was contested by five exhibitors. A good first was found in Miss B. H. Langton, who had garden Roses in variety nicely disposed. With the same types of the Rose Mr. H. R. Darlington, Park House, Potter's Bar, was a good second; and ordinary exhibition Roses of good quality placed Mr. F. Dennison third.

Tea and Noisette Section.—For eighteen blooms, distinct, the trophy and replica was won by Alex. Hill Gray, Esq., Newbridge, Bath, the flowers here being rather small but clean and good. White Maman Cochet was superb. Conway Jones, Esq., Hucclecote, Gloucester, was second, Molly Sharman Crawford being good in his stand. Third prize went to Mrs. B. Fortescue, Maidenhead.

In a similar class for twelve blooms, Alex. Hill Gray, Esq., was again first, White Maman Cochet being superb in this stand. Conway Jones, Esq., was second; and E. M. Eversfield, Esq., Horsham, third.

For eight trebles, distinct, Alex. Hill Gray, Esq., once more proved the leader, R. W. Smith, Mrs. E. Mawley and Maman Cochet being his three best. Conway Jones, Esq., was second; and the Rev. T. G. W. Henslow, Stanton St. Quintin, third.

For twelve blooms, distinct (open only to growers of fewer than 500 Teas and Noisettes), F. H. Cooke, Esq., M.D., Birch, Colchester, was first in strong competition, his flower of Maman Cochet shown here receiving the society's silver medal offered for the best Tea in the amateurs' section. The Rev. J. B. Shackle, Dropmore, was a good second; and F. Slaughter, Esq., Steyning, third.

For nine blooms, distinct (open only to growers of fewer than 200 Teas or Noisettes), the first prize went to M. Whittle, Esq., Leicester, two exhibits only being staged in this class.

The class for six blooms, distinct (open only to growers of fewer than 100 Teas or Noisettes), was well contested, first prize being won by Dr. F. G. Hayes, Dunster, Somersetshire, his blooms of Maman Cochet calling for special mention. H. F. Matthews, Esq., Stevenage, was second; and E. F. Brown, Esq., Slough, third.

Exhibition Roses in Vases.—For nine distinct varieties, to include not more than four Teas or Noisettes, five blooms of each, the first prize was well won by Conway Jones, Esq., with an attractive display, Frau Karl Druschki being exceptionally good. Second honours went to Alex. Hill Gray, Esq.; and third to G. A. Hammond, Esq.

In the class for six distinct varieties of Teas or Noisettes, seven blooms of each, premier position was secured by E. M. Eversfield, Esq., Horsham, his Mrs. E. Mawley being very good. O. G. Orpen, Esq., West Bergholt, was second; and Alex. Hill Gray, Esq., third.

Decorative Exhibits (Ladies Only).—For a circular table decoration there was a very spirited competition, there being no fewer than twelve competitors. Miss E. S. Scott, Albury, Eastbourne, won first prize with a beautiful decoration, in which the Lyon Rose was used advantageously with Rose foliage and Asparagus fronds. Second prize went to Mrs. O. G. Orpen, West Bergholt, with a dainty table, but less attractive than this lady usually displays. With Irish Elegance Mrs. J. W. Smith,

Sparrons, Herne Hill, was a very good third ; and fourth prize went to Miss A. P. Harwood, 16, St. Peter's Street, Colchester, with Liberty, charmingly disposed. This was a very rich exhibit.

In Class 30, for a bowl of cut Roses, there were a large number of competitors. Leading honours went to Mrs. Barrow, Rose Nurseries, Oadby, Leicester, with a beautiful bowl of Irish Elegance. Mrs. M. Foden, Hemel Hempstead, was placed second with a lovely bowl of Mme. Abel Chatenay. Mrs. E. D. Park was third with a pleasing arrangement.

In Class 89, for a bowl of Roses, there were eleven entries, first prize being won by Mr. G. A. Hammond with a charmingly disposed bowl of Mme. Melanie Soupert. Second prize was deservedly awarded to Mrs. Howard Williams, North Finchley, for a wonderful vase of Killarney ; and third prize was secured by Mrs. Sawday, Rydal Mount, Heath Road, Weybridge, for a lovely vase of Mrs. W. J. Grant.

There were twelve competitors in Class 90, also for a bowl of Roses. First prize was won by Miss J. B. Langton, Raymead, Hendon, with Irish Elegance in beautiful form. Second prize was secured by Mrs. F. A. Tisdall, Woodford Green, with a gorgeous bowl of Liberty ; and Mrs. J. W. Smith was third with Mme. Pernet-Ducher in grand form and condition.

The fourteen exhibitors in Class 91, for a vase of Roses, was a splendid effort, and Mrs. O. G. Orpen was well to the fore for first prize with Mme. Abel Chatenay and Rose foliage pleasingly displayed. Mrs. J. W. Smith had Mme. Ravary in fine form for equal second prize, as did also Lady Wilmot, Binfield Grove, Bracknell, with Blush Rambler.

The eight hand-baskets, in a class for this form of decoration, made hardly as good a show as usual. Mrs. O. G. Orpen was first with white and pale blush Hybrid Tea Roses neatly and artistically disposed. Second prize was secured by Mrs. Sawday with Countess of Gosford and Betty in pleasing fashion ; and third prize was secured with a very dainty and elegant basket by Mrs. G. W. Cook, the wife of the esteemed treasurer.

For a bowl of wichuraiana Roses in Class 94 there were seven competitors. Miss J. B. Langton was first, Mrs. J. W. Smith second, and Mrs. F. A. Tisdall third.

In Class 95, for a table decoration, open to those who have never won a prize for table decoration before, superb Liberty blooms secured leading honours for Mrs. F. A. Tisdall. Second prize was won by Miss E. M. Robinson, Glencoe, Hornchurch ; and third went to Miss D. Robins, Ingatestone.

There were seven entries in the class for a bowl of Roses for novices. First prize went to Mrs. W. G. Pedley with Gustave Regis, charmingly disposed ; second prize to Lady Wilmot with Mme. Alfred Carriere ; and third prize to Mrs. E. F. Brown, Lynton, Sussex Place, Slough, with Mme. Abel Chatenay.

Decorative Roses (Open to All Amateurs).—Of the two entries for eighteen distinct kinds, Mr. Alfred Tate was a good first with a bright and fresh lot. Bardou Job, Marquis Balbiano, Lina Schmidt-Michel, Hebe's Lip, Perle d'Or and Gustave Regis were a few of the better bunches. The Rev. J. H. Pemberton, Havering-atte-Bower, Essex, was second; some of his bunches were beautiful.

There were three competitors in Class 98 for twelve bunches of decorative Roses, distinct. First prize was won by Mrs. E. M. Wightman, Beger, Herts. American Pillar, Irish Glory, Mrs. Cutbush, Irish Beauty, Alfred Carriere and Mrs. Flight were all good. Second prize was won by Viscountess Enfield, Dancers Hill House, Barnet, with a really handsome lot of bunches ; and third prize went to Mr. H. R. Darlington, also for a really good series.

There was a spirited competition for six bunches of garden Roses. First prize was awarded to Mr. A. C. Turner with Fabvier, La Tosca, Blush Rambler, Débutante, Mme. Jules Grolez and Mme. Ravary. Second prize went to Mr. C. S. Gordon Clark, Fetcham Lodge, Leatherhead, who had La Tosca, Dawn and Mme. Pernet-Ducher in grand form. Mr. Edward Mawley, the hon. secretary, was third with a beautiful series, his Liberty being very striking.

The two entries for six vases of Sweet Briar Roses were not very successful. First prize went to Mr. H. R. Darlington, Anne of Geierstein, Amy Robsart and Brenda being the best. The Rev. T. G. W. Henslow was a good second.

In Class 101 there were four entries. This was for seven vases of decorative Roses. Miss B. H. Langton was first, having Zephyrine Drouhin, Macrantha, Crimson Rambler, Blush Rambler, Marquis of Salisbury and Rosa rugosa alba, all well shown. Second prize fell to the lot of the Rev. J. H. Pemberton with a very bright series ; and third prize was won by Dr. F. H. Cooke, Birch, Colchester.

There were again four entries for five bunches, distinct. Leading honours went to the Rev. J. B. Shackle with a very meritorious array of colour. Dr. F. H. Cooke was a good second. Third prize was secured by Miss B. H. Langton.

New Roses.

Mrs. Joseph H. Welch.—A very large, conical flower of bright rose pink colour, this shading to silvery pink. Shown by Messrs. S. McGredy and Sons, Portadown, Ireland. Gold medal.

Evelyn Dauntsey.—A medium-sized conical flower, the centre of which is bright rose pink, this colour being the most pronounced on the reverse of the petals. The inner surface is blush pink and the flowers are very fragrant. Shown by Messrs. S. McGredy and Sons. Silver-gilt medal.

Edward Mawley.—A rather loosely constructed Rose of rich crimson colour, somewhat after the colour shade of Horace Vernet. The flowers are of unique shape, resembling to some extent those of a double Nymphæa. Exceedingly fragrant and apparently very vigorous. Shown by Messrs. S. McGredy and Sons. Gold medal.

St. Helena.—A large, full-flowered Hybrid Tea Rose with moderate fragrance and good shape. The colour of the older petals is a sort of pale buff, the centre of the flower being a kind of apricot pink tint. Shown by Messrs. B. R. Cant and Co., Colchester. Silver-gilt medal.

Colcestria.—A rather flat Hybrid Tea Rose of blush pink colour, a little deeper in the centre than that of Mrs. J. Laing. The flowers are rather rough, but very fragrant. Shown by Messrs. B. R. Cant and Co. Card of commendation.

Mrs. Gordon Sloan.—A rather flat-shaped Hybrid Tea of cream and blush pink colouring, the pink being most pronounced in the centre. Faintly Tea-scented. Shown by Messrs. Alex. Dickson and Sons, Newtownards. Card of commendation.

Mrs. Foley Hobbs.—A conical-shaped hybrid Rose of creamy white colour, this being very faintly tinged with pink. Fragrant. Shown by Messrs. Alex. Dickson and Sons. Silver-gilt medal.

Rayon d'Or.—A pure yellow Rose resembling in colour Persian Yellow. The buds are tinted with scarlet, but when fully opened the blooms are very clear indeed. The stems are freely clothed with large, blood red spurs. Faintly Tea-scented. Shown by Dr. A. R. Waddell. Gold medal.

Mrs. G. Shawyer.—A conical-shaped Hybrid Tea of old rose and bright pink colouring. The young foliage is tinted red, and this colour is also very pronounced on the stems. Moderately fragrant. Shown by Messrs. Lowe and Shawyer. Silver-gilt medal.

Lady Hillingdon.—A new Tea Rose of golden yellow colouring that has been previously described in THE GARDEN. Shown by Messrs. Lowe and Shawyer. Gold medal.

Best Blooms in the Show.—The six silver medals offered by the society for the best six blooms in the show were awarded as follows : Nurserymen's section—Hybrid Perpetual, Horace Vernet, shown by Messrs. Alex. Dickson and Sons, Newtownards ; Tea, White Maman Cochet, shown by Mr. G. Prince, Oxford ; Hybrid Tea, Melanie Soupert, shown by Messrs. S. McGredy and Sons, Portadown. Amateurs' section—Hybrid Perpetual, Beauty of Waltham, shown by Mr. Joshua Dodwell, Hereford; Hybrid Tea, Mrs. T. Roosevelt, shown by Mrs. Fortescue, Dropmore, Maidenhead ; Tea, Maman Cochet, shown by Dr. F. H. Cooke, Birch, Colchester.

A ROSE SHOW AT BOURNEMOUTH.

ON the 1st inst. a very beautiful Rose show was held in the charming grounds of Michelgrove House and Boscombe Place. By the kind permission of George G. Hamilton, Esq., the exhibits were displayed in a spacious tent on the lawn at Boscombe Place. The Rose show was a private one, given by Walter C. Clark, Esq.. of Michelgrove House. This gentleman provided everything connected with the exhibition, including liberal money prizes. Mr. Clark kindly invited the members of the Bournemouth Gardeners' Association to compete. He takes much interest in this association, and had coupled with the wish to give the members a pleasant and profitable day's outing another praiseworthy motive—the benefit of the Boscombe Hospital, of which grand institution Mr. Clark is a most generous supporter. The money raised by the charge made for admission to the show was to be given to the hospital named. The gardens of Michelgrove House, as well as those of Boscombe Place, were opened to visitors, and it is really wonderful how much natural beauty these well-kept grounds contain. In Mr. Clark's gardens there are about 1,800 Rose trees growing, and these, being at their best, provided a veritable feast of Roses. Pine trees abound in the gardens, and the noble trunks of many of them are clothed with the healthy foliage and rich-coloured flowers of climbing varieties of the national flower, which Mr. Clark passionately loves.

There were many competitive classes, and among the most interesting was that for a dinner-table decoration, in which the competition was keen, nine tables being exhibited. Mr. Lorrimer was the winner, having Carnations, Asparagus and Ferns nicely arranged. Miss Howell was second, having Roses and Smilax. Mr. W. Shave, gardener to the Dowager Lady de Tabley, was very highly commended for his beautiful and simple arrangement of scarlet Carnations and Asparagus Fern. This table was much admired, as was that of Mr. Chamberlain, who was also highly commended. The table exhibited by Mr. Hamilton, who had a delightful arrangement of Sweet Peas, was very effective.

In the class for an epergne or vase of cut Roses, Mrs. George Hamilton was the winner with a tastefully arranged vase of flowers and Ferns. Miss Martin was second. In the class for a basket of cut Roses, Mrs. Gyers was successful, and Miss Martin followed, both baskets being skilfully arranged. These two classes were open to ladies only.

EXHIBITS NOT FOR COMPETITION.

These made a grand display. Mr. Clark exhibited the following Roses : Lyon Rose (grand), Melanie Soupert (fine), Pharisaer, Hugh Dickson and Amateur Teyssier. Mr. Taylor, head-gardener to Mr. Clark, staged some fine plants of Gloxinias, which did him great credit. Mr. Hamilton staged some lovely plants of Clarkias in pots, which were very effective. Miss Nancy Hamilton had a model garden, the planning of which showed exquisite taste. Miss Marjorie Hamilton, aged six years and ten months, put up a table decoration of Cornflowers, which was much admired. Messrs. W. Paul, Waltham Cross, staged a grand lot of Roses, including a box of their new variety Juliet, a rich rosy red flower with old gold reverse to the petals, very fragrant. This attracted general attention. In this collection Marquise de Sinety, Hugo Roller, Bianca and George C. Waud were finely shown. Mr. J. Stevenson, Sweet Pea specialist, of Wimborne, put up forty-eight vases of Sweet Peas, which were generally admired ; they showed good cultivation and were rich in colour, the flowers being borne on stout stems. Messrs. W. Watts and Sons of Bournemouth and Messrs. D. Stewart and Sons of Wimborne staged beautiful vases of Roses respectively.

Mr. Clark, assisted by Mr. Hamilton, distributed the prizes in the evening, and was given a most hearty vote of thanks for all he had done to encourage horticulture and benefit the hospital funds. Refreshments were also provided free of charge.

occasion eleven out of twelve bloomed. For the past six years I have always flowered Iris tingitana very well, and this I attribute entirely to the rich soil in which it is planted.

Mr. Elwes, writing of this Iris, says, "I have had it in cultivation for more than twenty years, and have found that it requires rich soil and the protection of a frame to get it into flower." Of course, in the South-West a frame is not necessary, as they succeed admirably in the open air. A couple of years ago I had an enquiry from a correspondent, who wished to know how I managed to flower this Iris, and I gave him full particulars. The following year I was pleased to receive a letter from him telling me that he had followed my instructions to the letter and had succeeded beyond his expectations.

I give the fullest cultural directions in this note in order that readers may be able to follow the system which with me has led to such satisfactory results, for, without doubt, anything that will lead to this lovely Iris relinquishing its shy-blooming habit and becoming a free-flowerer is well worthy of note. I have found it well to lift the bulbs after the foliage has died down, for some that were left in the ground through the winter did not bloom the following year, so I lift, store in a dry drawer, and plant again at the end of October. Once I left them until the second week in November, and found that their tops had commenced to grow, and feared their blooming might suffer, but they all flowered well. I plant the bulbs 3 inches deep and entirely surround them with silver sand. The illustration on page 349 shows a colony growing just above salt water at the mouth of the River Dart, far distant from any wall. There are thirty-five flower-heads, and the plants average over 2 feet in height, the tallest being 2 feet 9½ inches. This bed is probably a record for England, and is immeasurably superior to the Cornish one illustrated seven years ago. Wyndham Fitzherbert.

SWEET PEA CHAT.

Flowers and Fragrance.—At last we have reached the joyous time of abundance of blossoms and perfume from the Sweet Peas in the garden. The plants have not attained to the stature that is usual in many gardens, and I have already seen some that are setting seed-pods, but, generally speaking, they are in excellent health, and will give abundance of flowers provided that the early tendency towards pod development is immediately checked.

Notwithstanding the condition of the plants I foresee some disappointments, particularly in regard to the failure of many stocks to come true. Seeds which were indisputably saved from absolutely true lines of plants last summer are throwing many rogues, and seed-growers would doubtless be grateful to anyone who would tell them precisely how to proceed in order to ensure trueness in the Spencers, but the chances are that those who possess this knowledge will keep it to themselves and not give it out to all the world. Personally, I am sufficiently optimistic to believe that the day will come when we shall reach the Elysian state of reliability, but I must confess that I do not think that the time is yet within measurable distance.

There will, too, be heart-burnings owing to the similarity of many of the varieties. No doubt those who raised and introduced them saw differences between them and others (or perhaps they had not seen others with which to compare them), but the fact remains that there is need for more drastic selection and discrimination before the novelties are offered to the public, or the buyers will assuredly become wearied of growing half-a-dozen rows or clumps having distinct names, only to find when the plants come into flower that the differences are considerably more fancied than real. The eyes of the Sweet Pea world are upon the floral committee of the National Sweet Pea Society, and it is hoped and expected that this body of experts will see that the time has arrived when there should be something more than a statement that certain varieties are too much alike for inclusion in the same stand in any competition under the ægis of the parent body, and tell us that they are, if not quite identical, so closely similar that only one should be grown in a collection; and if they will go still further and say definitely which one that should be, our gratitude will be the greater.

Some varieties have grown much better than others up to the present, but there is in many gardens conspicuous general excellence. I have seen Stirling Stent in magnificent form, and the colour is nothing short of remarkable, while the substance, size and form of the blooms leave little or nothing to be desired. Up to the present Earl Spencer beats Nancy Perkin in growth and freedom of flowering; there is a suspicion of similarity in these, but my stocks are indisputably distinct both in colour and shape. The improved form of George Stark is not a robust grower, but the colour is superb, and up to the time of writing there is no sign of variation. Mrs. Andrew Ireland more than maintains its promise of last season, and the variety in the same colour section that beats it will have to be a real good one; the plant is a splendid grower and flowers profusely. King of the Blues Spencer is simply immense in size, but the colour does not appeal to me personally, though there is no doubt that it will be widely admired. Kathleen Macgowan is far better than I thought it would be, judging by last year's experience; it is thriving as well as the best of them, and the colour is exquisite. The crimson Spencers are something of a worry, for the difference between five rows from different sources is difficult to find as far as habit and colour are concerned; but a few days of sun, of which some of us have not had as much as we should like, may create developments. Within the next few days all the best will be in bloom, then we shall see which are the giants and which are those that can be safely omitted from the next collections. Spencer.

COLOURED PLATE.

PLATE 1404.

THREE GOOD DELPHINIUMS.

OUR coloured plate represents three of the most beautiful Delphiniums raised by Messrs. Kelway and Son of Langport, in whose nursery at the present time this glorious flower is in perfection. The varieties represented are Lady Fair, a soft lavender shade, touched with sky blue, and semi-double; Sir J. G. Ward, light blue, set off with a white centre; and Baden-Powell, lavender and rose. The plants are of strong growth, tall, and exceptionally beautiful when grouped.

A HYBRID ESCALLONIA (E. LANGLEYENSIS) IN MESSRS. VEITCH'S NURSERY AT COOMBE WOOD, KINGSTON HILL.

A BEAUTIFUL ESCALLONIA.

One of the most beautiful shrubs we have seen recently is the Escallonia represented in the illustration. This is in flower now in Messrs. Veitch's beautiful nursery, Coombe Wood, Kingston Hill, and is a hybrid raised by the firm. It is a cross between E. macrantha, which is a well-known shrub, and E. philippiana. This hybrid shrub was described in The Garden of June 25 last as follows: "The Escallonia that appeals most strongly to the writer is E. langleyensis. There is a superb plant at Coombe Wood; it is trained to some rough stakes, is 10 feet high and 12 feet wide, and the slender shoots are wreathed with rose pink flowers—ropes of them, one may say—3 feet to 4 feet high. It is perfectly hardy, and has charming attributes—strength, gracefulness, deep shining green leaves and brilliant rosy flowers."

GARDENING FOR BEGINNERS.

HOW TO LAYER ROSES AND CLEMATISES.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—Salad plants at this season are very much appreciated, and few kinds more so than Lettuces. The Cabbage varieties do not require any tying up in order to blanch the inside leaves, because the plants are naturally very compact growing; but the Cos varieties are greatly improved by being tied up judiciously, even those specimens that are the result of high cultivation. No plant must be tied while the leaves are moist, else the inside ones will decay. When the plants are about three-parts developed, some soft strands of matting should be passed round the top of the plant about 4 inches below it (so that a sufficiently tight grip of the leaves can be had) and made secure, but the matting must not be drawn too tightly, as it is necessary to allow space for the future swelling of the leaves. By thus treating Cos Lettuces a larger percentage of blanched leaves is secured. As it will not be possible to make further plantings on ridges between rows of Celery, the Lettuces must be planted in rich soil in a moist part of the garden, if such a spot be available; quick growth means tender salad. A nice batch of Endive plants should now be raised; the seeds must be sown very thinly in deeply dug, well-enriched soil. Thin sowing is very essential, because isolated seedlings grow sturdily and are far superior to those specimens which are drawn up weakly owing to overcrowding in the seed-bed. It is an opportune time now to use the Dutch hoe freely and so get rid of as many seeding weeds as possible. It means cleanliness and a garden free from seeding weeds in the autumn.

Flower Garden.—Border Carnations are lovely flowers, and the plants may be grown by amateurs in almost every garden in the country. The work of layering must never be neglected, because it is the means whereby one can maintain the stock in a vigorous state of health. Old plants often die, especially those that have not robust constitutions. The work is described in "The Town Garden" column, so there is no need to refer to it in detail here. In order to prevent Clematis plants getting top-heavy, the young shoots must be regularly trained to cover bare spaces, else they will all grow upwards and cling together in a mass.

Fruit Garden.—During the summer months the rain generally falls in light showers or heavy thunder-storms. In the first case it is rarely sufficient to moisten the roots of wall trees, and in the latter the greater part of the water runs away, especially where the ground is at all uneven or sloping. Do not trust to rain showers, therefore, but give all trees trained on walls a thorough soaking from ponds or tanks; and if the surface of the soil is hard and baked, gently loosen it with the aid of the garden fork, but do not use force enough to break the roots of the trees. This watering should be a thorough one; then the buds on the branches will swell freely. Grafted trees must be carefully examined at once; any shoots found growing from the stocks should be removed. If there appears to be any danger of the growing scions being dislodged by strong autumnal winds, make them secure to neat Bamboo stakes. Young stocks must be well watered and the mulch renewed, as it is important that such plants be cared for now if they are to grow satisfactorily.

Greenhouse and Frames.—Of Primulas, P. kewensis is one of the most valuable for the amateur to grow. The plants are almost hardy, and at best only need the protection of a cool greenhouse or frame in winter-time. At the present season the plants should be grown in a cold frame with a north aspect, so that the watering can be kept under control, but air should be admitted in abundance. Put the plants in their flowering pots at once. Fibrous loam, sweet leaf-soil, with a small quantity of old mortar rubble and sand added, form a capital compost. All feeding can be done later. The ashes in frames where P. sinensis, Cinerarias and Cyclamen are growing must be kept moist. Feed Achimene now in greenhouses and thin out weakly shoots from Rose trees prior to their autumn flowering. A. A.

THE LAYERING OF ROSES AND CLEMATISES.

LAYERING Roses with the object of increasing one's stock of plants is one of the simplest possible methods of propagation, and those inexperienced growers who have never yet attempted to raise their Roses in this way may enter on the work with the utmost confidence. Layering is recommended by some authorities, who state that the autumn, say, September or October, is the most suitable period for this work to be done. I prefer an earlier period, and consider there is no time like the present. Most Roses may be dealt with quite satisfactorily now, and those who are anxious to commence operations should follow the lines laid down in these notes and the illustrations accompanying them.

For the purpose of illustration a good shoot of an ordinary wichuraiana Rose is shown in Fig. 1. As a matter of fact it is a shoot growing on a very vigorous specimen of Dorothy Perkins, and will serve our purpose very well. Properly dealt with, it should be a very easy matter to layer such a shoot, and I have little doubt that, if properly layered, roots will have formed by late October. Before actually layering the shoot, however, a little preparatory work is necessary. At a suitable place the leaves should be removed from the stem, and the latter cut half through at a joint, doing this on the under side; then, turning the blade of the knife to run lengthwise, make an upward cut through the centre of the stem about an inch in length. I have endeavoured to show how this should be done in Fig. 2. The cut portion of the Rose stem should then be embedded in light and gritty soil and be firmly pegged down with wire or wooden pegs, such as are used for layering Carnations. That the beginner may better understand how the prepared shoot should be pegged down, the wire peg has been placed in position, so that all that is required to finish the operation is to embed the prepared portion of the stem in a depression made in the garden soil and cover it with light sandy soil sufficiently to well bury it. Before severing the layered shoots in the late autumn be quite sure that they are rooted.

Layering the Clematis.—Few hardy climbers exceed the beauty of the Clematis, and those who desire to make their gardens beautiful, both in the early and late summer, are prone to use this subject freely for this purpose. I wish to deal more especially with the hardy kinds, as they embrace all that is needed in most English gardens. It may be news to some beginners to learn that the Clematis is readily increased by seeds sown in sandy soil in autumn or spring, but a cold frame should be utilised for the purpose. By far the more popular and satisfactory way of increasing the Clematis, however, is that of layering the young shoots during the summer months. To simplify the matter for the novice I have depicted in Fig. 3 a shoot of Jackman's Clematis, just an ordinary growth, such as most plants will produce in abundance at this season; and as the present is a most suitable period for layering to be done successfully, no time should be lost in proceeding with the necessary preparatory work. This latter is a very simple matter; all that the beginner needs to do is to remove the leaves from the stem at a place about a foot from the point of the growth. Such leaves and leaf-stalks make a joint where they adhere to the stem of the growth that is being dealt with. The joint is cut half through with a sharp knife, and the blade of the knife is then turned so as to make a longitudinal cut of about an inch, or rather less, in length through the middle of the stem, but in a slightly upward direction. This is pegged down, as was advised for Roses, and embedded in light, gritty soil, so that when the layering is completed the result is much the same as portrayed in Fig. 4. All being well, there is no reason why the layers treated as I have

1.—TYPICAL SHOOT OF THE WICHURAIANA ROSE DOROTHY PERKINS SUITABLE FOR LAYERING.

2.—THE SAME SHOOT PREPARED READY FOR LAYERING. NOTE THAT SOME LEAVES HAVE BEEN REMOVED AND AN INSERTION MADE IN THE STEM.

3.—AN ORDINARY SHOOT OF A HYBRID CLEMATIS SUITABLE FOR LAYERING.

described should not be nicely rooted by the latter part of October, at which period they should be severed and planted in their permanent quarters. The layering of the Clematis is a system of raising stock that has advantages over other methods, such as grafting, &c.; the plants obtained by layering invariably go ahead in the succeeding season and soon make useful specimens. D. B. C.

ROSE HARRY KIRK.

THE wonderful vigour of this Tea-scented Rose must appeal to all who love decorative varieties. Imagine a Rose with a lovely long bud of a beautiful light sulphur yellow on a plant almost shrub-like in its vigour, and one obtains even then but a faint idea of its special charm in the garden. Perhaps one would not be specially fascinated with it in the very hot days of July and August—even at that time, in early morning or evening, it has most delightful buds—but in September, and also in June, it is most charming. I remember the sensation that was caused when Harry Kirk was first exhibited some four years ago, for we had then only one other Rose with such fine long buds, and this was Gustave Regis. Happily, raisers are now obtaining some glorious yellows, which, together with the new shades of reds and crimsons, will make the Rose garden even more perfect, by reason of its varied colouring, than it has ever been before. P.

ROSE FRUITS OR HEPS.

A FEW Roses produce such a quantity of showy fruits as to be almost worthy of cultivation solely for that reason. Pheasants are passionately fond of Rose heps or berries, and can be seen at almost all hours of the day among the plants after the beginning of autumn and the maturing of the berries. Of late years, in this district, a large number of Rosa rugosa plants have been used in covert planting for two reasons—favourite food for the birds, thus keeping them more at home, and also the grateful cover and shade provided. This method of utilising our hardiest and most easily grown class of Roses might be increased to advantage. As a boundary hedge, for gap-stopping, or as clumps for food and cover in the game preserves they are invaluable. Nor could one provide much cheaper, quicker or efficient cover. They come freely from seed and make good shrubs by the third year. The largest heps are found among the Rosa rugosa section, but there are several other varieties that are exceedingly showy, while the many shapes, sizes, forms and colours give great variety. The fruits can be had from small Sweet Pea size up to more than 1½ inches in diameter, and in almost all shades of colour. Few plants help our autumn foliage and flowers more than sprays of Rose fruits; and I believe the rugosa is used as jelly preserves on the Continent. All the single Japanese Briars fruit freely, and we find several more among the species that are well worth growing for autumn decoration.

Uckfield. A. P.

PREPARING BEDS FOR STRAWBERRIES.

No time should now be lost in getting ground ready for fresh plantations. For this crop the ground should be well worked and heavily manured. Continue to layer runners for planting. On good land strong-growing sorts like Royal Sovereign should be planted 2½ feet between the lines and 2 feet between the plants. Others with smaller foliage, like Leader, may be closer. The work of destroying old plantations should now be taken in hand, digging up the plants and burning them on the ground, or, if the ground is being trenched now, they may be put in the bottom of the trenches.

FEEDING CHRYSANTHEMUMS.

THE beginner in Chrysanthemum cultivation will now be getting anxious as to the matter of the feeding of the plants. Of course, a very critical time in the growth of this plant is now approaching, and every precaution must be taken so as not to give a check to the plants; I mean the "taking" of the crown buds. If plants at this stage are weakly, they will only produce weakly buds, and in order to strengthen them nourishment must be given. To over-saturate the soil with liquid manure would be disastrous, and equally so to apply strong doses of artificial manures, especially if the plants are not well rooted. First ascertain if there are plenty of roots, and then, if they are numerous, judiciously feed with artificial manures and weak doses of clear soot-water. A small quantity of artificial manure frequently sprinkled on the surface of the soil in the pots will have a most beneficial effect. During rainy weather it is unwise to apply liquid manure, but some artificials may be given in a dry state. Directly it can be seen that the buds are forming, all feeding should cease until the buds "taken" are swelling nicely; then both feeding and top-dressing must be done. AVON.

THE TOWN GARDEN.

BORDER CARNATIONS.—At any time now preparation may be made for the layering of the shoots of these plants, and in this way provide that greater vigour which an annual re-rooting bestows. The essential items of successful layering are simple enough and easy enough to carry out, yet a very large number fail because of a certain innate fear which they cannot dispel. To say that a sharp knife, an upward cut and a steady hand only are needed to perform the work is right enough in its way, but the mistakes follow just as freely as of yore; hence a detailed description of the work may be very helpful at this time. If we deal with the operation in the systematic way in which we should perform it, the reader may be still further assisted.

PREPARING THE PLANTS.—This may consist also of weeding the ground around the plants and lightly forking up the soil to a depth of 2 inches, the digging to extend to the outermost limits of the procumbent shoots, which are termed "grass" or "layers" by the gardener. Next take each layer separately, and by a sharp downward pull remove all the leaves for a distance of 3 inches or 4 inches from the base of its stem, laying each one as it is thus cleaned and prepared in order on the soil. When thus prepared there should remain about 6 inches or so of the more vigorous portion of the shoot for layering. Some finely sifted and very sandy soil should be in readiness to place round about the plants, and in this new soil the layering should be done. A few pegs must also be in readiness, and these may consist of hair-pins or some straight pieces of thin galvanised wire bent at one end to the form of a shepherd's crook.

HOW TO LAYER.—Having arranged the layers in order about the plant so that each has its allotted space, the operator, kneeling beside the plant—assuming the latter to be in the open ground—should lift a shoot and so turn it that the under portion of the stem of the shoot is for the moment uppermost. By grasping the tuft of green leaves in the left hand and extending the index finger in a line with the stem, a firm support will be given and the stem ready to receive the knife. The mode of inserting the knife is, perhaps, the most important item now, and the necessary upward incision in the stem should be the result of a single deliberate cut—that is to say, there must be no scraping or paring of the bark, but, by fixing the blade of the knife vertically on the stem or shoot, press it into the stem to about halfway before turning the blade to continue the upward cut. The entry should be made at a point on the stem immediately below a joint, the cut or incision to extend in an upward direction into the next joint. From a well-made cut a bluntish, crescent-shaped nib or tongue—which is the relieved portion from the cutting—should ensue. Failing this, the point of the nib must be removed with a horizontal cut to produce a bluntish end.

FIXING THE LAYERS.—The actual process of layering, the fixing of the shoots or layers into the soil, has an importance of its own, and the greatest attention to the details above given may be of no avail unless this fixing is rightly done. The best way to fix a Carnation layer in the open ground is to draw a channel-like groove with the fingers, and, slightly pressing the uppermost portion of the shoot in the direction of the plant, cause the cut to open widely and in this condition make it secure in the soil. Should the cut become closed and be planted or layered in this state, the parts will probably heal in course of time and the rooting be either deficient or entirely absent. For greater security a wire peg, as previously noted, will assist to keep the layers in position. With the work of layering completed, a gentle watering with a fine-rosed can should be given to settle the soil. E. H. JENKINS.

4.—THE SAME SHOOT AFTER LAYERING HAS BEEN COMPLETED.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to the Editor, 20, Tavistock Street, Covent Garden, London, W.C.

SWEET PEAS FROM STIRLINGSHIRE.

Mr. C. Shaw, The Gardens, Boquhan, Kippen Station, Stirlingshire, sends a remarkably fine lot of Sweet Peas, all of which are of splendid colour and possess long, stout stems. In addition to the best standard varieties Mr. Shaw included such new ones as Asta Ohn, lavender; Frank Unwin, pale lavender, very prettily waved; Queen of Norway, waved, purplish mauve standard and blue wings; Tennant Spencer, rosy purple; and Marie Corelli, cherry red with white centre. In addition we noticed a pretty seedling with large, waved purple standard and blue wings. Mr. Shaw writes: "I have much pleasure in forwarding you a few blooms of Sweet Peas, which I hope may reach you in good condition. We have been cutting since June 20, and will have a much larger percentage of fours in a week or two. The seeds were sown on January 26 in small squares of turf, stood in a vinery at a temperature of between 40° and 45°, placed in a cold frame on February 24, and planted out on April 22. Previous to sowing the seeds were all slightly chipped. I allow three seeds to a piece of turf 4 inches square. The ground was fairly deeply dug and liberally dressed with farmyard manure in the autumn, and a light dressing of superphosphate was given a few days before planting out. Each piece of turf is allowed 18 inches in the rows, and the plants require to be thinned out occasionally as the growths get too crowded. Sweet Peas generally in this district will be good, judging from the appearance of most growers' stock. My sincerest good wishes to the National Sweet Pea Society, 'Spencer' and the Editor."

DELPHINIUMS FROM LANGPORT.

Messrs. Kelway and Son, Langport, Somersetshire, send us specimens of some of their remarkably good Delphiniums, flowers which at this season do much towards the creation of beautiful effects in the garden. The following varieties appealed very strongly indeed to us: Prince Charming, semi-double, light blue outer petals with inner segments coloured pale mauve; Christine Kelway, single, Cambridge blue with white eye; Royal Blue, beautiful gentian blue, black eye; Branching Persimmon, clear blue single, shaded rosy mauve; Lady Fair, very pale blue double, flaked rosy mauve, white eye; Remarkable, semi-double, Oxford blue, shot with purple, large white eye; Huish, single, gentian blue, edged mauve, white centre; and Silver Buckle, clear blue single with chocolate eye.

SWEET PEAS FROM UPTON-ON-SEVERN.

Miss Hemus, Holdfast Hall, Upton-on-Severn, sends us some exceptionally good Sweet Peas, many of them her own novelties. Among those that called for special mention were Zarina (shell pink, tinted apricot), Prince of Orange (beautiful large waved orange), Lavender Paradise, Primrose Paradise, Guy Hemus (very pretty clear lavender self), Paradise Apple Blossom and Shawondasee (lavender grey).

IRIS PALLIDA FROM KELSO.

Mrs. Kidd, 13, Forrestfield, Kelso, N.B., sends flowers of the well-known Iris pallida with the following interesting note: "I am sending a spike of an interesting Iris now in bloom in my garden. When travelling with my mother and sister in Italy about fourteen years ago we visited Florence and the fine old monastery of San Marco, where Savonarola was Prior. My mother took a small root of Iris from the cloister garden and sent it to Glasgow, where it flourished and grew to a great size in a smoky back garden. Later it was divided, and a root of it planted in my mother's garden in Dumfriesshire, where it grew to an enormous size, and has since been divided several times. A root of it grew in our cold northern garden in Forfarshire, and one summer it had two dozen beautiful spikes on it. We brought it to Kelso with us three years ago, and it still flourishes, and has been divided once or twice. Wherever it is planted it seems to grow to a great size. I should be pleased to know the name of it, and if it is just a common Iris or a particular kind."

NEW PLANTS.

THE new plants described below were all exhibited at the Royal Horticultural Society's exhibition held at Holland Park on the 5th and 6th inst., when the awards were made.

Cattleya Mendelii Stuart Low.—This is an exceedingly beautiful white-flowered form of a well-known Cattleya, and was the most sought after Orchid in the show. With the exception of a small yellow marking in the throat, the flower is very pure white and the labellum beautifully frilled. The plant was carrying five flowers. Shown by Messrs. Stuart Low and Co., Bush Hill Park, Enfield. First-class certificate.

Miltonia vexillaria lambeauiana. — A large-flowered variety of considerable merit, the blossoms being pure, dense white, with a pale yellow blotch in the centre. First-class certificate.

Cattleya Mendelii King George.—The distinctive points about this variety are the brilliant rosy purple colour of the segments and the highly frilled labellum. The flowers in size are rather small, but the plant has a good habit. Award of merit.

Cattleya dietrichiana.—A large, handsome flower of great substance. The sepals and petals are in colour a sort of rose purple, the labellum being bright purplish crimson, with rich yellow throat. Award of merit.

Cypripedium Curtisii Sander's variety.—A very dark-coloured variety of large size, the bold labellum being almost chocolate red, this colour on the segments being freely besprinkled with dark brown spots. Award of merit. The four Orchids mentioned above were all shown by Messrs. Sander and Sons, St. Albans.

Rose Juliet.—This Rose has already been fully described in THE GARDEN. The flowers are large, rather globular in shape, and very double. The outer surface of the petals is clear golden yellow and the inner bright cerise, the effect being a delightful combination of the two colours. The flowers are exceedingly fragrant. Shown by Messrs. W. Paul and Son, Waltham Cross. First-class certificate.

Rose Mary Countess of Ilchester.—A Hybrid Tea Rose of much beauty, the flowers being full, fragrant and brilliant crimson carmine in colour. Award of merit.

Rose Mrs. Foley Hobbs.—A large and excellent-shaped Tea variety, the colour of which is creamy white, very slightly tinged flesh pink. Award of merit. Both the foregoing were shown by Messrs. Alex. Dickson and Sons, Newtownards.

Begonia Mrs. W. L. Ainslie.—A superb double self yellow-flowered variety of great size, charm and excellence. In the yellow-flowered class this variety practically stands alone. Exhibited by Messrs. Blackmore and Langdon, Bath; and by Messrs. T. S. Ware, Limited, Feltham. Award of merit.

Delphinium Belladonna semi-plena. — With a name so fully descriptive we only need to add that the variety is one whose dwarfness and colour beauty will render it one of the most serviceable of dwarf-growing sorts. Award of merit.

Delphinium Lamartini. — A very handsome dark-flowered variety, bold in stature and conspicuous by reason of the excellence and size individually of its blossoms. These two varieties were exhibited by Mr. Amos Perry, Hardy Plant Farms, Enfield, and each received an award of merit.

Gladiolus King Edward VII.—This is a very large-flowered variety of the Colvillei section, the blossoms being vivid scarlet, with a narrow creamy white stripe down the centre of each segment. Shown by Mr. F. Lilley, Guernsey. Award of merit.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Sweet Peas dropping their buds (*Mystery*).—This is a common occurrence among Sweet Peas early in the season, and is generally due to a check or disease. In your instance it is evidently not disease, as you say the plants are quite healthy. No doubt, as they had to be planted out so late, they received a slight check then, and we think this is the cause of the trouble. Probably by the time this reply appears in print the plants will be giving you good flowers.

Perennial border plants (*Craftsman*).—You might add to what you already possess Campanulas, Flag Iris, Columbines, Gaillardias, Lilies, Asters or Michaelmas Daisies, also such Asters as Amellus, acris, lævigatus and others, Coreopsis, Lilies, Heucheras, Incarvillea, Eryngium, Echinops, Delphinium, Kniphofia, Sunflower, Thalictrum, Lychnis, Oriental and other Poppies, Erigeron, Eremuri, Pæonies, Pentstemons, Day Lilies and many more. Without knowing something of the purpose for which the plants are intended, we are precluded from giving you a list in more detailed form. Many of the genera above named contain hosts of distinct varieties, a dozen of each of which would be welcomed in any garden if space permitted their free use. If you will give more definite particulars of your requirements we may be able to further assist you.

Snapdragons failing (*George Tucker*).—We should have liked a few more particulars, especially as to whether the plants are occupying the same ground as last year. The failure is due probably to wireworm or to soil pests of some kind which generally exist upon the root-fibres of the plants or the stems. Millipedes not infrequently devour all the bark from the stems of plants just below the surface, the plants in the circumstances bereft of all sustenance from the soil collapsing. If any of these things have brought about the failure, a change of soil and a good dressing of soil and lime may assist matters. If from this reply you cannot divine the cause of the failure, you had better send us a complete plant for examination.

Poppy diseased (*P. Wilts*).—The disease is the Poppy rot-mould, Peronospora arborescens, and the best remedy is to at once pull up the plants and burn them. The plant was probably P rupifragum, but too much withered for identification. The Lithospermum may be benefited by a little lime added to the soil, say, a small proportion of superphosphate of lime or bone-meal, mixed a week or two before being applied. The sickly appearance may, of course, be due to other causes of which we have no information.

Aster plants dying (*Astor*).—Your Aster plants are attacked by a fungoid disease which often gives trouble in the cultivation of these beautiful annuals. A close stagnant atmosphere during the early stages of growth is very favourable to the development of this pest, and, once it starts, remedies appear to be of but little avail. It is best combated by a light, buoyant atmosphere and a free circulation of air. Your better plan is to burn every plant thus affected, and it will be useless to put any other Asters in their place this season. In all probability your plants contracted the disease while in the cold frame, in which thorough ventilation is not always an easy matter.

Information about bulbs (*Herts*).—Lift the bulbs now at any time and, having carefully dried them off in some airy shed or like place where the direct influence of the sun will not reach them, store them in boxes till required for use. You will understand, of course, that if these plants are not replanted in reasonable time they will not be in condition to perform their proper functions in spring. To keep Daffodils out of the ground after September is to impose upon them a forced idleness when they should be making their roots. Hence we recommend you to replant in a well-prepared bed about the time stated. Michaelmas Daisies, we may remind you, are gross feeders, and will quickly rob the soil in the neighbourhood of the Daffodils.

White Lupines failing (*C. Spring Rice*).—The failure is due either to the age of the plants, to canker, or to the roots having reached soil that is uncongenial to them. In August or early September the plants should be lifted and examined, and if healthy at the root, divide and replant them at once. If unhealthy, burn them and start afresh with young, vigorous plants. To maintain youth and vigour in such things the plants should be raised periodically from seeds, or divided every third year and given a change of soil. These deep-rooting subjects are not greatly benefited by surface mulchings of manure.

Information about a Pæonia (*G. Fisher*).—The flower sent is that of Pæonia tenuifolia flore-pleno, a double-flowered variety of a species introduced nearly 150 years ago. The plant is no freak, but is a well-known and well-marked plant of a very distinct type. The typical species has a rather wide distribution in the wild state, being found in Transylvania, the Crimea and other parts. The flower sent represents a rather poor specimen, and the plant would repay a more liberal fare. You should heavily mulch the plant or lift and replant it in September in rich soil.

Information about Narcissi (*Glendale*). — You certainly planted the Narcissi much too deep, and this, in conjunction with an unsuitable soil, may have brought about their failure. Even when the beds are required for Begonias a depth of 8 inches would be ample for the Daffodils. You say nothing as to the nature of your soil at 15 inches deep; but, judging from your letter, we should be inclined to discard the bulbs outright, well prepare the surface of the beds for the Begonias, and replant Daffodils in early autumn under better conditions. Had you sent us a few of the bulbs, we could have said whether soil conditions or disease had affected them.

TREES AND SHRUBS.

The proper method of, and time for, pruning French Lilacs (*F. P. H.*).—The Lilac tree bears its blossoms on the branches of the previous year's growth only, and therefore the young branches of this year's growth are those which will produce the blossoms of next year. These young shoots starting into growth should on no account be interfered with. A Lilac bush or tree, whether French or Persian, requires but little pruning at any time. If your bushes are becoming too dense and thick with growth, this may be corrected in the autumn or winter by cutting out some of the weakest and worst-placed branches. The only pruning needed in summer is to cut away the old flower-spikes, in order to give the young shoots starting at their base a better chance of making a good growth during summer.

Catalpa tree nearly dead (*M. E. B.*).—We fear that there is now little chance of reviving your Catalpa, as it seems to be too far gone. The only thing you can do is to cut out all the dead wood; at this season you will be readily able to distinguish it from the living. It is very likely that the tree is in an exhausted condition, and will be benefited by the ground being lightly forked underneath as far as the branches extend and then top-dressed with a mixture of loam and decayed manure. When this is done, give a good soaking of water, and do the same at any time during the summer when the weather is dry. The top-dressing and attendant moisture will encourage the formation of fresh roots if the tree is not too far gone, while the watering will carry the nourishment from the manure down to the roots that are more deeply situated. We do not say that this will restore your tree, but it will give it every possible chance.

Information about Yew (*Frank Osborne*).—You do not say whether the Yew trees in question are common Yews or the fastigiate or Irish Yew. If the former, there is really no reason for tying the branches together; rather let them grow naturally. If they are the Irish kind, it may be necessary to support the branches. This may be done with wire, providing a band of felt or some similar material is put round each branch to prevent the wire cutting in. Sufficient room ought also to be left to allow of the branches increasing in thickness. By shortening the ends of the branches now and then they will eventually become self-supporting, when the wire may be removed.

Information about Lime trees (*Drina*).—As you simply wish to form a shady walk and do not mind about the Lime trees growing into fine specimens, you may cut them back each year to form a wall of greenery on either side of the path, or you may let them meet overhead and form an arched way. Should you decide to do this, you may cut the dead out now; then next spring cut the branches well back to induce them to grow into the form you desire. After cutting back once or twice you will find that the desired form will become fixed. An annual cutting back of the previous year's shoots in February will keep the trees right. Should a gap occur here and there, branches may be tied across the opening.

MISCELLANEOUS.

Guano, its market value, &c. (*M. Petschor*).—The market price of guanos varies according to their composition, from about £10 to £17 per ton. The composition is extremely variable as regards the amount of nitrogen, of phosphates and of potash, all of which are contained in different grades of guano. The raw guano may be "blended" and "refined," but the price paid for the manure bought must be governed by the amount of the manurial substances contained as shown on analysis. Some guanos contain much nitrogen, and are better for certain soils than others which are rich in phosphates, so here, again, the value of the manure must be gauged from the analysis supplied. It cannot be said that guano is the best fertiliser for any and every kind of soil, for though an "equalised" guano would probably prove good for most soils, yet more economical results would be obtained by the use of other fertilisers. Two excellent books on manures for gardens are Cousins's "Garden Chemistry" and Hall's "Fertilisers and Manures."

Beetles attacking Pea plants (*C. W. R.*).—The beetles which are attacking the Peas are the Pea weevils (Sitones lineatus), and are in no way connected with the weevils which bore into the seeds of Peas and Beans, especially perhaps the variety of Broad Bean, known as Aquadula. They are often very destructive to Peas and Clover, and their ravages are sometimes wrongly attributed to birds. The grubs feed on the roots of Clover and Peas, and the beetles drop to the ground from the leaves on which they are feeding at the least alarm, hiding themselves under clods, &c. The best thing to do would be to dust the plants with powdered slaked lime or with soot, or a mixture of the two, while the dew is still on them, or even paraffin emulsion may be used. The ground along the rows of plants should be made firm, so as to reduce the number of hiding-places as much as possible.

Japanese tree (*X* 70).—We have no knowledge of the successful cultivation of the Zelkowa in this country. The Elymus has no value as a forage plant so far as we know, though it may be—indeed, has been—turned to good account as a covert plant.

Vegetables and salt (*F. W. Waddington*).—Occasional dressings of salt may be given to Seakale and Asparagus, and likewise to not a few of the Cabbage tribe. It is, however, by no means essential to perennial border flowers generally, though a few plants appear to like it. Crambe cordifolia, Cineraria maritima, Centaureas and Armerias are some of those which occur to mind. As a soil dressing, salt is better applied to the land when vacant or at the time of digging or manuring.

SOCIETIES.

CROYDON HORTICULTURAL SOCIETY.

THE forty-third annual exhibition of this society was held on July 6 in the Park Hill Recreation Ground, and, if we except some of the leading open classes for Roses—for which, by reason of the inclement weather, no competitors were forthcoming—the show was one of much excellence throughout. Groups of plants arranged for effect were of much merit, while vegetables and fruits generally excited keen competition.

For forty-eight Roses, distinct (open to all), for which the National Rose Society's silver-gilt medal and a money award of 45s. were the first prize, Mr. Elisha J. Hicks, Twyford, Berks, secured the premier award with an excellent lot of flowers. Such varieties as Lady Helen Vincent, Bessie Brown, Frau Karl Druschki, Lyon Rose, Mme. Segond-Weber, Fisher Holmes, Killarney and Mrs. Theodore Roosevelt were the best. The same exhibitor secured a silver-gilt medal for a non-competitive display of Roses of excellent quality, which included many of the rambler sorts in the best varieties.

For twenty-four blooms, distinct, Mr. F. J. Jeffries, Thornton Heath, came into the leading place, having, among many good flowers, excellent examples of J. B. Clark, Bessie Brown, Earl of Warwick, Earl Dufferin, Hugh Watson and Mme. Eugenie Ward.

In the class for eighteen Tea or Noisette varieties (open), Mr. Elisha J. Hicks, Twyford, was again placed first, having as his finest blooms Mrs. Edward Mawley, Muriel Grahame, Maman Cochet, White Maman Cochet, Souvenir de S. A. Prince and Mrs. Sharman Crawford. Second, Mr. F. J. Jeffries, Thornton Heath, whose Maman Cochet, Hon. Edith Gibbs, Mrs. Edward Mawley and Comtesse de Nadaillac were all of merit.

For twelve blooms of one variety (open), Mr. E. J. Hicks, Twyford, led the way with a superbly coloured dozen of the Lyon Rose, Mr. Jeffries appearing in the second place with excellent examples of Frau Karl Druschki.

In the class for twelve Tea or Noisette Roses, one variety only, the two exhibitors last named appeared in the same order, showing Mme. Jules Gravereaux and Souvenir de Pierre Notting respectively in very fine form.

For twelve Roses, distinct, open to growers of 2,000 plants, including Teas, Mr. Frederick R. Slaughter, Cashel, Steyning, was first with a very fine lot, Mrs. Edward Mawley, Mrs. J. Laing, Frau Karl Druschki, Florence Pemberton and White Maman Cochet being of fine quality. For four varieties, distinct, three trusses of each, the same exhibitor was in the leading place, having Florence Pemberton, Mrs. J. Laing, Frau Karl Druschki and others.

In the class for nine Roses, distinct, confined to growers of 1,000 plants, Mr. H. L. Wettern was first, having good examples of J. B. Clark, Countess of Caledon, Francois Michelon, Ulrich Brunner, Mrs. W. J. Grant and Mrs. Laing among his best.

For six Roses, distinct, open to growers of about 500 plants, G. H. Ashberry, Esq., Wallington, was a good first, having excellent examples of Mrs. Theodore Roosevelt (which secured the silver medal as the best Tea in Classes 17 and 18), Bessie Brown, Florence Pemberton, J. B. Clark and others; second, Thomas V. Larocks, Esq., Wallington, whose Lady Ashtown and Kaiserin Augusta Victoria were very good.

The premier position in the challenge cup class for twelve varieties, distinct (open to amateurs resident within three miles), was taken by H. L. Wettern, Esq., Waratah, Sanderstead, who staged Mrs. Edward Mawley, for which the silver-gilt medal of the National Rose Society was awarded. Prince Arthur, J. B. Clark, Bessie Brown, Mrs. J. Laing, Mrs. W. J. Grant and others were in very fine form. Second, E. P. Watson, Esq., Thornton Heath, whose Lady Ashtown, Hugh Dickson, Crown Prince, J. B. Clark and Captain Hayward were all of fine quality.

For six Hybrid Perpetual Roses, distinct, H. L. Wettern, Esq., was again first, having good representatives of Horace Vernet, Dupuy Jamain, Captain Hayward and Frau Karl Druschki; second, G. H. Ashberry, Esq., Wallington, whose Killarney and Mrs. Theodore Roosevelt were excellent specimens.

For six Tea or Noisette Roses, Mr. Wettern was again in the coveted place, having Maman Cochet, White Maman Cochet and Mrs. Edward Mawley.

For six Roses of one variety only, Mr. Wettern came first with Caroline Testout, Mr. Ashberry following with

good examples of Mrs. J. Laing; Percy H. Beck, Esq., had a nice Lady Ashtown in the third place.

For three vases of Roses, five blooms in each, stems not to exceed 12 inches in length, Messrs. G. H. Ashberry and W. G. Child, Thornton Heath, were first and second respectively.

Mr. R. Sergeant, Park Hill Recreation Ground, secured a silver-gilt medal for a non-competitive display of Roses, which included Caroline Testout, Mrs. J. Laing, La France, Bessie Brown and Frau Karl Druschki, not a few of the blooms being of excellent quality.

For three bunches of black Grapes (open to all England), Mr. W. Lintott, gardener to Sir Walpole Greenwell, Bart., Marden Park, was first with well-finished examples of Prince of Wales, the same exhibitor taking the premier position in the class for three bunches of white Grapes, showing excellent bunches of Foster's Seedling.

In the class for fifty fruits of Strawberries, one variety, Mr. C. Lane, gardener to E. H. Coles, Esq., Burntwood, Caterham, was placed first with a superb lot, Mr. W. Lintott, gardener to Sir Walpole Greenwell, Bart., being second.

For a collection of vegetables the last-named exhibitor was in the leading place with a high-class lot throughout.

For a group of plants arranged for effect on the turf there was strong competition, Mr. C. Lane, gardener to E. H. Coles, Esq., Caterham, securing premier honours with a superb setting of Orchids, small Crotons, Palms and a few Lilies. Mr. J. Randall, gardener to F. Dyer, Esq., appeared in the second place.

For three stove or greenhouse flowering plants, Mr. Coles was again in the leading position, having Dipladenia, blue Hydrangea and Begonia.

The classes for six Fuchsias (open and reserved to amateurs within the society's area), were well contested, Mr. J. Randall, gardener to F. Dyer, Esq., Park Hill Road, securing first honours in both classes with clean, well-grown, well-flowered examples that did credit to the gardeners' art.

For a collection of Gloxinias arranged with small Ferns and other plants for effect in a space 8 feet by 4 feet, Mr. T. A. Colyer, gardener to A. H. Allen, Esq., Beddington, was first with an admirable lot.

In the non-competitive classes Messrs. George Bunyard and Co., Maidstone, and Mr. Frank Brazier, Caterham, each displayed an excellent collection of herbaceous plants, the last-named receiving a silver-gilt medal for a really fine grouping of these things. Mr. Thomas Butcher, Shirley and Croydon, was awarded a gold medal for a table of floral emblems, bouquets and baskets of flowers arranged with much skill.

BRIGHTON AND SUSSEX ROSE AND SWEET PEA SHOW.

THIS, the second of its kind, was held on the 5th and 6th inst. in the Dome and Corn Exchange. The trade exhibits added largely to the success of the exhibition. First among these were Messrs. Balchin and Sons, Brighton, who erected a magnificent stand of Liliums. Silver-gilt medal.

Messrs. Jarman and Co., Chard, had a stand of their new Centaureas. The interest which these created was immense. In addition were shown beautiful specimens of new Sweet Peas, notably Mrs. Townsend, a beautiful flower, white in colour, suffused with heliotrope; Primrose King, an advance towards a pure yellow; and White Ida, a lovely flower of great purity. Silver medal.

Messrs. J. Cheal and Sons, Crawley, staged a collection of Roses, Sweet Peas and herbaceous flowers: as also did The Barnham Nurseries, Limited; Messrs. William Wood and Sons, Maresfield; and Mr. James Box, Lindfield, who included also Violas and rock plants. Mr. Frank Woollard, Brighton, had a lovely stand of Roses, on which the new Rose Lyon figured prominently. Each exhibit was awarded a silver medal.

A new seedling Perpetual-flowering Carnation shown by Mr. George Miles, Victoria Nursery, Brighton, of a fiery orange colour and named Orange Glow, received a certificate of merit.

COMPETITIVE CLASSES.

Plants (*Open*.—For a group of Roses, either plants or plants and cut blooms, any foliage plants or cut foliage allowed, the premier award—a handsome silver cup, society's silver medal and first prize—was won by Messrs. G. Mount and Sons, Canterbury. Mr. G. W. Piper, Uckfield, was second. In Mr. Mount's collection the new Rose Lady Hillingdon was conspicuous. So excellent was this exhibit that it was also awarded the Corporation Challenge Bowl, offered for the most meritorious exhibit in the show. For a group of Roses similar to the above, in a space 10 feet by 6 feet, Messrs. G. Mount and Sons likewise secured first award.

For a table of Roses, either plants or plants and cut blooms, with any kind of foliage, Mr. James Box, Lindfield, was an easy first; Mr. G. W. Piper, Uckfield, second; and Messrs. G. Mount and Sons third.

Messrs. Mount were first for twelve Roses in pots, most of which were exceedingly well shown.

For a table of flowering and foliage plants arranged for effect, G. E. Witting, Esq., Hollingbury Copse, Brighton, was first, and Daniel Hack, Esq., Withdean, second.

Cut Flowers (*Open*).—For forty-eight Roses, distinct, the society's gold medal and first prize were secured by Mr. Frank Woollard, Lewes Road, Brighton, whose collection comprised blooms in good form of White Maman Cochet, Richmond, Hugh Dickson and Lyon, the latter being awarded the silver medal offered for the best Hybrid Tea bloom in the show. Messrs. G. Mount and Sons were second.

For thirty-six Roses, distinct, first prize and society's silver medal went to E. M. Eversfield, Esq., Denne Park, Horsham; second, Mr. Frank Woollard; third, Messrs. G. Mount and Sons.

For thirty long-stemmed Roses, six sorts in six vases, five of each sort in a vase, first prize was won by Louis Brietmeyer, Esq., Cuckfield Park, with, among others, Ulrich Brunner, Alfred Colomb and Frau Karl Druschki; second, Messrs. G. Mount and Sons; third, Mr. E. M. Eversfield.

For a collection of cut Sweet Peas, artistically arranged with any kind of cut foliage or foliage plants, the challenge cup and society's silver medal went to Mr. C. F. Waters, Balcombe; second, Mr. James Box.

For twenty-four sorts of Sweet Peas in twenty four vases, twenty stems in each vase, the society's silver-gilt medal and first prize went to Mr. James Box.

For twelve sorts in twelve vases as above, with any kind of foliage, first prize and silver medal were won by Mr. W. Herbert Smith (amateur), Hailsham.

Classes for Gentlemen's Gardeners and Amateurs.—For a circular group of miscellaneous flowering and foliage plants arranged for effect in a circle of 10 feet diameter, a handsome silver cup, society's silver medal and first prize went to S. C. Witting, Esq., with H. Bayer, Esq., Withdean, second.

Roses, twelve blooms, distinct: First, E. M. Eversfield, Esq., with nice blooms of J. B. Clark, Comte Raimbaud, Lady Ashtown, Mrs. Edward Mawley and Frau Karl Druschki; second, the Rev. L. C. Chalmers Hunt, William Rectory, Hitchin; third, Douglas F. S. Smith, Esq., Burgess Hill.

Roses, six blooms, distinct: First, Mr. E. W. Morris, M.R.C.V.S., Uckfield, whose exhibit contained the best bloom of Hybrid Perpetual in the show, Frau Karl Druschki, thus securing also the society's silver medal; second, Mr. P. T. Davis, Burgess Hill; third, Mr. A. Standen, Horsham.

Sweet Peas, thirty stems of white: First, Mr. W. Herbert Smith, with Nora Unwin; second, S. Howard, Esq.

Sweet Peas, thirty stems of pink: First, Louis Brietmeyer, Esq.; second, S. Howard, Esq.

Sweet Peas, thirty stems of blue or mauve: First, Mr. W. Herbert Smith, with Rosie Adams; second, the Rev. L. C. Chalmers Hunt.

Sweet Peas, thirty stems of crimson or scarlet: First, Mr. W. Herbert Smith, with King Edward Spencer; second, S. Howard, Esq.

SOUTHAMPTON ROSE AND SUMMER SHOW.

THIS show was the best held by the council during recent years, and the courteous secretary, Mr. Fuidge, and the members of the council are to be highly congratulated on the splendid results of their efforts.

Roses, Cut Blooms.—In the principal class for forty-eight blooms, distinct, Messrs. D. Prior and Son, Colchester, were the successful exhibitors, staging beautiful specimens, the following being noteworthy: Oberhofgartner Terks, Star of Waltham, Mrs. Theodore Roosevelt, John Ruskin and Mrs. Cocker. Second honours went to Messrs. B. Cant and Sons, Old Rose Gardens, Colchester. In this stand Ulrich Brunner, Dean Hole, Earl of Warwick and Lyon Rose were the best blooms. Messrs. F. Cant and Co., Colchester, won third position with a beautiful stand of blooms.

For twelve trebles, Messrs. B. R. Cant and Sons were the winners, Lyon Rose, Dean Hole, Marie Baumann and Mrs. Cocker being very fine specimens. Messrs. D. Prior and Sons came second, having Lyon Rose, Mrs. T. Roosevelt, Countess of Caledon and Horace Vernet in splendid condition. The last-named variety was selected as premier bloom in Classes 1 to 5. Mr. H. Drew, Longworth, Berks, was a close third.

Mr. Drew was easily first for twelve blooms, Teas or Noisettes, distinct. He had Mrs. Edward Mawley and Mme. de Watteville in grand condition. Messrs. D. Prior and Son and Messrs. B. R. Cant were second and third respectively.

For six blooms of one variety, dark colour, Messrs. Prior won with fine blooms of Horace Vernet. Messrs. B. R. Cant were second with Ben Cant, and Messrs. F. Cant and Co. third with Hugh Dickson.

For six blooms of one variety, light colour, Messrs. D. Prior and Son were the winners with Mrs. Theodore Roosevelt. One grand bloom in this stand was selected as the premier bloom in the show. Mr. Drew was second, and Messrs. B. R. Cant third.

Class 6 was a charming one. It was for a display of decorative and other Roses, arranged with Rose foliage only, in a space 7 feet by 3 feet. Mr. Hicks, Berkshire, was a good first with a lovely display, and with this also won the society's medal. Messrs. B. Ladhams and Co., Southampton, had a nice exhibit, and were awarded second honours.

Dr. C. Lamplough, Alverstoke, easily won first place in Class 7 for eighteen blooms, distinct. Here we found Bessie Brown, Frau Karl Druschki and Mme. Jules Gravereaux in excellent form. The last-named variety was selected as premier bloom in this division, and also won the society's medal. The Munt Cup was awarded to this stand of blooms. Messrs. H. W. Richards, Isle of Wight, and Percy Sugden, Wimborne, were second and third respectively. Dr. Lamplough was again first for six varieties, three trusses of each; and Mrs. Murray for twelve blooms, Teas or Noisettes, distinct.

Sweet Peas.—Mr. H. H. Lees, Havant, in close competition won Messrs. Toogood and Sons' prize for the best six bunches of Sweet Peas, distinct, having John Ingman, Mrs. Routzahn, Mrs. C. W. Breadmore, Earl Spencer, Lavender George Herbert and Othello Spencer in grand form. Mr. Usher, gardener to Sir Randolf Baker, Bart., Blandford, came a close second; and Mr. F. Green, Southampton, third. Mr. Usher was first for one bunch of Sutton's Queen Sweet Pea, and also for one bunch of Marbled Blue. Messrs. Webb and Sons offered prizes for eight varieties of Sweet Peas, sixteen stems in each vase, and Mr. Usher was the successful exhibitor. All the classes for this popular flower were well filled.

Vegetables and Fruit.—Mr. Ellwood, gardener to W. H Myers, Esq., Swanmore Park, staged grand produce and won four firsts for collections, namely, Messrs. Toogood's for six, Messrs. Sutton and Son's for six, Messrs. James Carter and Co.'s for six, and Messrs. Webb's for a similar number of dishes. Mr. F. L. Westron, gardener to Walker Monro, Esq., won first honours in the two classes for black and white Grapes respectively; Mr. Duncan had the best Peaches and Strawberries; Mr. Freeman was successful for Nectarines; and Mr. Usher had the best Melon.

Trade Exhibits.—These were excellent, original in arrangement and of high merit throughout. Messrs. W. H. Rogers and Co., Red Lodge Nurseries, Southampton, had Roses in pots and cut blooms, miscellaneous plants and their new Zonal hybrid Pelargonium James T. Hamilton; gold medal. Messrs. Ladhams had an old-fashioned garden arrangement, very beautiful; gold medal. Mr. E. Wills had miscellaneous plants and floral designs, a grand exhibit; gold medal. Messrs. Toogood and Sons showed Sweet Peas and dishes of culinary sorts; gold medal. Mr. J. Stevenson, Wimborne, staged fifty vases of Sweet Peas, Mauve Seedling, The King, Asta Ohn and Paradise Ivory being fine; silver-gilt medal. Mr. C. F. Waters, Balcombe, Sussex, had Carnations: silver medal. A similar award was given to Mr. Fay for Carnations. Messrs. Lilley, Guernsey, showed Gladioli; silver medal..

WINDSOR ROSE SHOW.

THIS society held its nineteenth annual exhibition on the 2nd inst. His Majesty the King graciously lent the lower lawns at the foot of the beautiful slopes in the grounds of Windsor Castle. What promised to be a record show, both in attendance and number of entries, was somewhat marred by the stormy weather. However, it was generally acknowledged that the excellence of the exhibits was far in advance of former years. The exhibit of Messrs. Alexander Dickson and Sons, Newtownards, which won the King's Cup, was a superb one, and would be very hard to beat. Most of the classes were well filled, and the competition was very keen.

OPEN CLASSES.

For forty-eight blooms, distinct, first prize the King's Challenge Cup, Messrs. Alexander Dickson and Sons, Newtownards, were easily first with a magnificent stand of flowers. Mrs. W. J. Grant, Mamie, Mildred Grant, Mrs. Cornwallis West, Horace Vernet, Countess of Annesley, Mrs. David McKee and Lady H. Vincent were all perfect examples in this superb exhibit. Messrs. B. R. Cant and Sons, Colchester, were second; Messrs. D. Prior and Sons third; and Messrs. F. Cant and Co. fourth.

For eighteen Teas or Noisettes, distinct, Mr. G. Prince, Longworth, Berks, was first with a splendid lot of fresh blooms, Mme. de Watteville, Molly Sharman Crawford, Mme. Jules Gravereaux and The Bride being in excellent form. Messrs. Frank Cant and Co. were a good second; third, Mr. H. Drew, Longworth, Berks.

For twelve distinct, three blooms of each, Messrs. Alexander Dickson and Sons were again leading with a grand set of flowers. Some of the most notable were Ulrich Brunner, Countess of Annesley, Marquise Litta, Horace Vernet, Bessie Brown, Mrs. W. J. Grant (best bloom in the show) and Mildred Grant. Messrs. D. Prior and Son were second with excellent blooms, and Messrs. Ben Cant and Sons third.

For twelve blooms of any Hybrid Perpetual or Hybrid Tea, Messrs. Harkness and Co. were first with a splendid stand of Mrs. J. Laing, Messrs. Alex. Dickson following closely with a lovely lot of Lady Ashtown. Messrs. B. R. Cant and Sons were third with Dean Hole.

In the class for twelve blooms of any Tea or Noisette, Messrs. A. Dickson and Sons were again to the front with an excellent stand of Mrs. Foley Hobbs. Messrs. Ben Cant and Sons followed with Mme. Jules Gravereaux, and Mr. G. Prince was third.

For eighteen bunches of decorative Roses, Mr. Charles Turner, Slough, was first. Lady Battersea, Mme. A. Chatenay, Bardou Job, Liberty and Joseph Lowe were some of the best in this excellent exhibit. Messrs. Frank Cant and Co. were a very close second, Messrs. W. and J. Brown third, and Mr. G. Prince fourth.

For twelve blooms of any crimson, with twelve blooms of any white, Messrs. Frank Cant and Co. were a good first with fine flowers of J. B. Clark and Frau Karl Druschki; second, Mr. H. Drew; third, Messrs. G. and W. H. Burch.

For six distinct, five blooms of each, shown in vases, Messrs. A. Dickson and Sons were again leading with an excellent exhibit, Gertrude, Lady Helen Vincent and Mrs. Theodore Roosevelt being superb. Messrs. D. Prior and Sons closely followed, and Messrs. Frank Cant and Sons were third.

AMATEUR CLASSES.

For twenty-four blooms, distinct, first prize the Windsor Challenge Cup, E. B. Lindsell, Esq., was first with a superb stand of even flowers, Bessie Brown, Frau Karl Druschki, Mildred Grant, Helen Keller and Charles Lefebvre being some of his best. F. Dennison, Esq., was a good second, and G. A. Hammond, Esq., third.

For eight distinct, three blooms of each, first prize the Princess Alexis Dolgorouki's Cup, E. B. Lindsell, Esq., was again to the front with a beautiful stand, Frau Karl Druschki, Mrs. T. Roosevelt, Mildred Grant and J. B. Clark being in good form. F. Dennison, Esq., was second, and the Rev. J. H. Pemberton third.

THE GARDEN.

No. 2018.—Vol. LXXIV. July 23, 1910.

CONTENTS.

The National Sweet Pea Society's Trials 357
Notes of the Week
Forthcoming events 358
Correspondence
The "degeneration" of the Potato .. 359
Gardening of the Week
For the South and South Midlands.. 359
For the North and North Midlands.. 359
A Sweet Pea garden .. 360
Greenhouse
The Kalanchoes and their culture .. 361
Primula Forbesii .. 361
Luculia gratissima 361
Rose Garden
Roses on banks .. 362
Rosa pernetiana .. 362
A beautiful wichuraiana Rose 362
Standard Roses from cuttings 362
Rose Lena 362
Trees and Shrubs
A Heath-like shrub 363
Abelia floribunda .. 363
Trees and Shrubs
Clianthus puniceus albus 363
Flower Garden
A garden of Irises 363
The Japanese Iris on a hilltop .. 364
The varieties of Chrysanthemum maximum 364
Fruit Garden
Fruit notes 364
Fern Garden
The common Bracken 365
Gardening for Beginners
Garden work week by week 366
A border in a suburban garden .. 366
Selecting Sweet Peas for exhibition .. 367
The Town Garden.. 367
Answers to Correspondents
Flower garden .. 368
Greenhouse 368
Trees and shrubs .. 369
Miscellaneous 369
Societies 369

ILLUSTRATIONS.

The National Sweet Pea Show 361
The new Iris albopurpurea colchesterense 363
White Glory Pea in South Devon 364
A field of Iris Kæmpferi on the hilltop 365
A portion of a border in a town garden 366
An ideal spray of a new Sweet Pea 367
A blue flower for the town garden 367

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices : 20, *Tavistock Street, Covent Garden, W.C.*

THE NATIONAL SWEET PEA SOCIETY'S TRIALS.

LAST week witnessed the gathering together of a large number of Sweet Pea enthusiasts from all parts of the United Kingdom, and such a gathering may fairly be regarded as indicative of the firm hold which this sweet-smelling and floriferous annual has upon the affections of those who love flowers. On Tuesday and Wednesday, the 12th and 13th inst., the National Sweet Pea Society held its annual metropolitan show, a report of which appears elsewhere. This is the first occasion on which the exhibition has been extended to two days, but the results were such as to justify the committee's experiment, and no doubt a two days' show will be decided upon for next year.

On the Thursday about eighty members of the society and friends journeyed to *The Times* Experimental Station, Sutton Green, Guildford, where the official trials of comparatively new varieties have been held by the kind permission of Lord Northcliffe and under the able directorship of Mr. Charles Foster. Among those present were Mr. N. N. Sherwood, V.M.H., Dr. Boxall, Messrs. Robert Sydenham, W. Cuthbertson, A. Hoggan, Hugh Dickson, C. Foster, S. Bide, W. J. Nutting, T. Stevenson, Leigh Spencer, F. H. Chapman and Dr. Phillips. The ladies present included Miss Kennedy (a niece of Mr. W. Atlee Burpee) and Mrs. Earle (both from the United States of America), Mrs. C. H. Curtis, Mrs. Leigh Spencer, Mrs. Clegg, Miss Townsend, Mrs. Faulkner, Mrs. Foster and Mrs. Holloway.

Those who have visited the trials at Reading in previous years will know how excellent they were conducted, but the plants at Sutton Green were in an even better condition. It is an encouraging sign to find that the varieties sent for trial this year are, on the whole, much purer or more true to type than they have been before. This, we may reasonably suppose, indicates that raisers are working on a more scientific basis than has hitherto been the case, the old method of guesswork being a thing of the past. It must not, however, be supposed that there is no room for further improvement in the matter of fixity; quite the reverse, as some of the stocks at Sutton Green were very badly mixed indeed. The value of growing novelties under impartial management is considerable, as a true idea of their worth is thus obtained, and the society rightly refrains from giving certificates or awards to any varieties that are not represented in the trials.

Of course, the new variety of the year is Stirling Stent, sent by Mr. Agate of Havant, Hants, and which received the society's silver medal as well as a first-class certificate. It is best described as a slightly waved flower of orange salmon colour, and possesses the merit of not burning very badly in the sun. Arthur Green, from Messrs. Dobbie and Co., is described by the senders as a maroon, but it should really be classed as a waved flower of dull violet purple. It was quite true in the trials, and will doubtless appeal to those who like flowers of this colour. Mrs. Hugh Dickson, from the same source, was, I think, first sent out as Mrs. Henry Bell Improved, and this aptly describes the flowers. Cherry Ripe, from Messrs. Gilbert and Son, Dyke, Bourne, is a waved flower, the colour of which may be described as cherry red. Masterpiece, from Messrs. Dobbie and Co., has been in commerce a year or two. It is a waved flower of rosy mauve colour, and came true in the trials.

Each of the foregoing varieties received an award of merit from the floral committee of the society; but there were many good Sweet Peas in the trials which, though not considered quite worthy of an award, were, nevertheless, good and true enough for the best collections. Among these the following deserved special mention: Freda Unwin, a beautiful clean mauve or almost French grey flower, from Mr. W. J. Unwin; Edrom Beauty, from Mr. Malcolm, a very rich flower that may almost be described as a much glorified Helen Lewis; Isobel Malcolm, a very vigorous pale cream waved flower, also from Mr. Malcolm; Nettie Jenkins, from Mr. W. J. Unwin, a very clear lavender grey flower of the grandiflora section; trial 46, from Mr. William Deal, an unnamed waved flower of heliotrope pink colour, which may almost be classed as a picotee variety; Gladys Burt, from Mr. W. J. Unwin, a very rich-coloured Sweet Pea after the style of Mrs. Henry Bell, but superior to it; trial 104, from Mr. William Deal, an unnamed waved variety of rich scarlet colour, and undoubtedly the best waved scarlet in the trials, being without that tinge of cerise which is to be found in the otherwise excellent variety George Stark. Edna Unwin, from Mr. W. J. Unwin, is a splendid rich orange flower, with rather paler wings, and was

quite true. Trial 120, from Robert Sydenham, Limited, is an unnamed waved orange and pink flower that was exceedingly pretty as grown, and quite true. Orange King, from Messrs. S. Bide and Sons, is an even richer colour than Stirling Stent, but at the trials the flowers were burning more than those of the medal variety. However, it was quite true and is well worth growing. Dusky Monarch, a large flower of maroon colour, from Mr. C. W. Breadmore, though not quite true, was of sufficient merit to justify one in recommending it, the plants being extra strong. Blue Bell, from Messrs. S. Bide and Sons, is a very pretty sky blue flower of the grandiflora type, which was quite true and is worthy of extended culture. Trial 208, from Mr. Cautley, is a very good, true waved salmon flower, which, unfortunately, burns rather badly in the sun. If shaded, however, it should make a splendid variety for exhibition. Arthur Unwin, from Mr. W. J. Unwin, was the most vigorous variety in the trials, the flowers and stems being large but not coarse. It is a bicolor, and excellent for garden or house decoration. Eric Harvey, also from Mr. Unwin, is a large waved flower, the white ground of which is heavily flushed with bright rose at the back of the standard. Florence Wright, from Mr. G. Stark, is a plain white flower of great substance, and one that is likely to oust Dorothy Eckford as a market variety. There were many older varieties, now fairly well known, that were exceedingly good, but it is not necessary to refer to these in detail.

After inspecting the trials the visitors were entertained to lunch by Lord and Lady Northcliffe. The beautiful gardens and grounds of Sutton Place were inspected, and the host and hostess kindly provided tea.

On Friday, the 15th inst., about eighty members journeyed to Kelvedon, Essex, to inspect the trials of Sweet Peas at Messrs. Hurst and Son's seed farm. The condition of the plants there was excellent, especially as the seed was sown in the open field and the Sweet Peas had only been given field culture. A great many trials of culinary Peas were also open for inspection here, and the general high quality of these evoked considerable praise from many of the visitors who were interested in them. Mr. N. N. Sherwood kindly entertained the visitors to lunch at his charming residence, Prested Hall, after which a journey was made to Mark's Tey, a few miles distant, for the purpose of inspecting the Sweet Peas grown there by Messrs. Dobbie and Co. These were in very fine condition indeed, and the stocks generally were good. The long grass walk, bordered on either side with clumps of the leading varieties, with Mignonette between, was a fine object-lesson of one of the uses to which Sweet Peas may be put. Mr. and Miss Cuthbertson kindly provided tea, after which the visitors left for London.

These annual outings have now become a prominent feature of the youthful but vigorous National Sweet Pea Society. The members on such occasions have excellent opportunities of seeing the latest novelties and comparing them with older sorts, and for this and many other reasons such outings are of great educational value. Growers are enabled to meet together and discuss the various phases of Sweet Pea culture, and bring before each other's notice any good novelties they may possess at home. No doubt much of their success is due to the admirable arrangements which are invariably made by the hon. secretary, Mr. C. H. Curtis, who is well supported by Mrs. Curtis. H.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 26.—Carnation and Picotee Show, 1 p.m. to 6 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

July 27.—Chesterfield Floral Society's Show; Southampton Carnation Show (two days); Leamington Horticultural Show (two days).

July 28.—St. Ives Horticultural Society's Show.

The Horticultural Club.—The annual club excursion will take place on Thursday, the 28th inst., not the 30th, as stated in the preliminary notice. By the invitation of Mr. N. N. Sherwood, the members will visit Prested Hall, Kelvedon, Essex. The train, to which saloon carriages will be attached, will leave Liverpool Street Station at 10.55 a.m. All applications for tickets, which are 7s. 6d. each, should be made to Mr. Harry J. Veitch, Royal Exotic Nursery, Chelsea, S.W., before July 20, in order that the necessary arrangements may be completed. The return train leaves Kelvedon at 7.30 p.m., arriving at Liverpool Street at 9.3 p.m., but, should any member desire to leave earlier, a train leaves Kelvedon at 4.32 p.m., reaching Liverpool Street at 5.48 p.m.

The Sweet Pea Exhibition.—One of the most charming flower exhibitions of the year is that of Sweet Peas inaugurated by the National Sweet Pea Society. It was held, as usual, this week in the Horticultural Hall at Westminster, and although not so extensive as last year, it presented the same exquisite misty effect of colour, with that drowsy sweetness that even in a London hall recalls the fragrance of the country garden. It seems impossible to enlarge the range of colours, but year by year there is some diversity, and the flowers of orange, vermilion and scarlet shades are in greater variety. But there is one point the visitor should not forget when, perhaps, there is disappointment that the flowers grown in his or her own garden have not reached the excellence of those shown at such an exhibition as this, and that is the great preparation beforehand in soil, watchfulness and disbudding to throw the strength of the plant into the flowers that are to enter into competition. This is, of course, the same in the case of all exhibitions, flower and otherwise; the exhibits that are to be shown are prepared for that purpose. A prettier show, however, has seldom occurred, and whether the flower is seen in the exhibition or in the garden, it is welcomed for its diversity of colouring and sweet scent, and is testimony to the beautiful work of the hybridiser. —*Country Life.*

Messrs. Kelway's exhibit at the Japan-British Exhibition.—Messrs. Kelway and Son of Langport write: "We are pleased to say that we have received a notice from the Superior Jury of the Japan-British Exhibition saying that we have been awarded a gold medal for our exhibit of plants in the grounds of the Exhibition this year. Considering that the judges visited the show once only, and at a time when our portion of the grounds was not in flower, we could not have expected a higher award. We think the judges will agree with us that it would have been more favourable to the exhibitors if they had been allowed to make, say, three visits during the season."

Holland Park Show.—We regret the omission of a description of the fruit exhibit of S. Heilbut, Esq., Holyport, near Maidenhead, Berks, which was shown at the beautiful exhibition in the grounds of Holland Park recently. It consisted of ten splendidly grown Cherry trees, and the award was a silver cup.

National Horticultural Society of France and the Paris floods. — This famous French society opened a subscription list for those who suffered through the Paris floods, and the sum realised was £1,500.

Monument to Ernest Calvat. — In recognition of the services rendered to horticulture by the great French Chrysanthemum raiser, M. Ernest Calvat, it has been decided by the French National Chrysanthemum Society to start a subscription list to raise the necessary funds for the erection of a monument to his memory. Those of our readers who desire to contribute are requested to send their subscriptions to Mr. Harman Payne, 141, Wellmeadow Road, Catford, S.E.

Dracæna australis.—I am sending two photographs of some fine groups of Dracæna australis in blossom, which may be of interest to your readers, as it is not usual for them to do so well out of doors in this country. We have four large groups raised from seed and planted out about seventeen years ago. They are now 18 feet to 20 feet high, and seem in no way to suffer from the rough, cold winds we have in winter; they blossom profusely every June. The flower is like an enormous mass of cream-coloured Spiræa, and very fragrant in the evening.—M. B. M., *Pembroke.* [Unfortunately, the photographs were on too reduced a scale to make good reproductions.—ED.]

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet-scented yellow Musk.—If "E. L. B." will send name and address and six stamps for gardener's packing, Mrs. Taylor, Bowerdens, Henley-on-Thames, will send sweet-scented yellow Musk. It grows there like a weed.

Catalpa and climbing Rose.—In THE GARDEN of July 16 I notice a letter from a correspondent relative to a Catalpa tree in a dying condition. A few years ago I had one in exactly the same condition, full of dead wood and the foliage very poor indeed and the leaves much smaller than they ought to be. A friend of mine, a very clever experienced gardener, thought the tree beyond recovery, and I decided to cut it down. When it had been topped and only about 10 feet of trunk left, I thought of planting a climbing Rose on the stump, and so decided it should be left. The following spring it threw out some healthy young shoots, and each year it went on improving, until now, after four years, the tree is in splendid foliage again, as good as it ever was, and most ornamental. The poor Rose Félicité Perpétue has now very little chance of making a show, although it has climbed to the top of the Catalpa.—H. W.

The "degeneration" of the Potato.—It was with interest I read on pages 334-5 of a recent issue of THE GARDEN the somewhat pessimistic jeremiad over what the writer is pleased to call "The Degeneration of the Potato." As one who has devoted many years of a long life to the noble tuber, and who in old age does not become a monomaniac or belittler of things as they are, I confess to holding that the Potato, so far as strength, robustness, health and productiveness are concerned, was never better than it is to-day. Since here in the South we learnt to treat our seed tubers more intelligently and get our seed from Scotland, Ireland or the cooler North and Midlands frequently, to secure change of soil and climate, Potatoes have entered into a new lease of life, and never in all my experience looked better than they do just now. Still further in relation to seedling production, if there is any difficulty at all in relation to seedlings, it is rather that there are so many to select from than so few. Only on the day preceding the reading of Mr. Taylor's note on the decadence of the Potato I had seen a huge breadth of some 100 or more varieties in the Royal Horticultural Gardens at Wisley, most of which were seedlings, and every one full of growth and vigour. There was no evidence of decadence there. Again, as to flower production, on the same day as the paper was read I passed through wide districts of Middlesex, Berks, and Bucks, and saw immense breadths of Potatoes in full bloom, both white and mauve, presenting for the time beautiful flower gardens, and in almost every direction breadths luxuriantly robust. As to the production of seedlings, if the decadence of the Potato plant be as described, how was it that Messrs. Sutton and Sons were enabled to show me last spring several hundreds of *bona-fide* seedlings, presenting a wonderful collection in quantities varying from the original seedling dozen tubers up to two or three bushels of seedlings, so many years old, and every one promising to give wonderful crops? Why, seedlings are being raised all over the kingdom, in spite of the fact that pollen is now in Potato flowers a scarcer product by far, and happily so, than it was some thirty or forty years ago. And why is that? Not because there has been degeneration, but because we have bred for tuber producers and not for worthless seed apple producers. Hence in the production of tubers the energies of the plants are directed into a more valuable direction than in the production of free pollen, and, as a result, of an abundant crop of seed apples. We have the old Ashleaf Kidney still, which never naturally seeds and rarely flowers. Early Rose and Beauty of Hebron have always been poor pollen producers, but they, after forty years' existence, still remain standard early varieties. When at Wisley I was shown an early Potato having a very short top which never carries flowers, yet it crops so well that it secured an award of merit last year. Still, it has been in cultivation some thirty or more years, and, given good culture, good soil, special care for the seed tubers when lifting and through the winter, and also frequently giving the stock change of soil, the variety may go on for ever, if desired. It is the introduction of so many fine, new, heavy-cropping varieties into commerce which has caused so many older ones to be no longer grown. Then when, in all the years that have elapsed since 1846—the first year of the terrible disease—have we had such robust disease-resisting varieties as now? Even last year, with all its rainfall and cold, dull weather, gave us, in spite of the disease, a great crop, so that Potatoes never were cheaper or more plentiful than last winter. There is absolutely no need for, or reason in, such sad sermons as was that I have alluded to.—A. DEAN.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

CHRYSANTHEMUMS.—The decorative varieties will now require their permanent stakes. In this work the idea must be to show as little of the support as possible. The thin brown Bamboos will be found the most useful for the doubles, and for singles the brown tips are quite strong enough, and also very inconspicuous. Plenty of nourishment must be given to keep the plants growing freely.

Mignonette.—A good batch of this should be sown now in pots, selecting a sturdy variety for the purpose. Rich soil is necessary to obtain good results, and may be made up in the following proportion: Two parts loam, one leaf-soil, one decayed manure and a liberal sprinkling of old mortar rubble. The seeds should be sown thinly and the pots stood in a close frame until germination takes place. Thin the seedlings as soon as they are large enough to handle. If in 5-inch pots, three or four plants are quite sufficient to leave in.

Humea elegans.—If this is sown now, good plants may be obtained for flowering next summer. They make excellent subjects either for conservatory decoration or as dot plants in large beds, the brown plumes being very effective.

Regal Pelargoniums.—As these finish flowering water should be gradually withheld and the plants given a resting period.

FLOWER GARDEN.

Violas.—Cuttings of these may now be taken, using the young growths for the purpose in preference to the old flowering shoots. They root quickly in cold frames. A few inches of sand should be placed in the frame and the cuttings inserted. Keep the frame close and shaded, well watering the cuttings as soon as they are put in. As soon as they are well rooted plant them out into nursery beds, where they will make good material for bedding.

Sweet Peas.—All seed-pods should be picked off as soon as the flowers drop; if they are allowed to remain and mature, the flowering season will be considerably shortened. They will require abundance of water during dry weather. Add liquid manure, occasionally soot, and another time some approved artificial manure, to the water. The colours are not so good when clear water only is used. When watering has to be done, a thorough soaking must be given, sufficient to get down to the roots. If the plants are making much growth, a few of the side shoots may be thinned out.

Daffodils and Narcissi.—The choice varieties of these should be obtained and planted as early as possible. Early planting is strongly advocated if good blooms are required for exhibition purposes.

FRUITS UNDER GLASS.

Pot Strawberries.—The work of potting the layers into the fruiting pots should be proceeded with as soon as possible. The usual size pot is one 6 inches in diameter. A good rich, substantial soil is necessary, and should be made up in the following proportions: Three barrow-loads of loam, one of decayed manure and 4lb. of Thomson's Manure to each barrow-load. These must be thoroughly mixed and used in good working condition, neither too dry nor too wet. In turning the young plant out of the layering pot it is advisable to gently press the top and bottom of the ball together. This disconnects the roots from the sides and they get into the new soil quicker than if left tight as turned out. The plants must not be dry when potted, nor yet in a sodden state; they should be watered a few hours before required for potting. Firm potting is essential, and the soil must be well rammed round the plant, taking care not to smash the ball. After potting they should be stood on a clean ash ground in beds, allowing four rows in a bed with an alley between the beds for watering and cleaning.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

PARSLEY.—This popular herb is usually in demand almost daily, and if supplies are to be kept up during winter and early spring, some preparation is necessary about this time. If Parsley is sown at once in a cold frame and well thinned after the plants are 1 inch high, very good leaves will be available when wanted. Perhaps a better plan is to prick the thinnings from the latest sowing outside into a frame. If a bed of good soil, in which is a good proportion of leaf-mould, is placed in the frame, the young plants will soon grow. Keep close and shaded for a few days, afterwards admitting abundance of air. When well established remove the sashes altogether, and so induce dwarf, sturdy growth. A good variety for winter use is Sutton's Hardy Winter.

Turnips.—Where fresh young roots are in demand during autumn, a sowing should now be made of Golden Ball, Sutton's Snowball and Chirk Castle. The latter grows rather slowly, but is very hardy and will be fit for use till late autumn.

Broccoli.—The planting of this important crop must be finished as soon as possible now, or the plants will be so small that fine heads next spring will be out of the question. This crop often succeeds on a border with a western exposure when it fails in other parts of the garden.

Early Potatoes.—These may be lifted now at any time, as it has been proved that seed tubers give best results if stored before they are quite ripe. The tubers for table may be kept in excellent condition by storing at the north side of a wall, covering them with a little damp earth. The seed should be placed in shallow boxes and exposed to the sun until well greened. Treated thus, they keep well and are seldom attacked by rats and mice.

FLOWER GARDEN.

General Work.—To keep everything in this department trim and neat should be the endeavour of all who have charge of it. Neatly clipped edges are always welcome, and if these are run over with the shears every ten days, no gathering up of the clippings will be necessary. Keep down weeds both on walks and in beds. Stake and tie all plants requiring this treatment, remove dead flowers frequently, and see that nothing suffers from dryness at the roots should the weather remain dry. Many plants well repay an occasional soaking with weak liquid manure after moistening the soil with clear water.

RESERVE GARDEN.

Get Wallflowers, Myosotis, Sweet Williams, Canterbury Bells and similar plants set out in nursery rows, so that they may be in good condition for removal to their flowering quarters later on.

Polyanthuses.—Seed will now be nearly ripe, and many prefer to sow at this time. Certainly germination takes place much more rapidly and evenly than in spring. A well-prepared bed in the open or in a cold frame will suit admirably. If sown thinly, no pricking out will be necessary

until spring. Auriculas and Primroses may also be sown. The former should be given boxes of light soil, or damping off during winter will be general.

FRUIT GARDEN.

Summer Pruning.—Where early pruning is practised, now is a good time to have the work performed. Cut back to about five leaves from the base. Much diversity of opinion seems to exist regarding this pruning. Many good gardeners leave it until nearly the end of August and then prune much harder. I have seen good results from all methods, and would not care to advise either exclusively. One great advantage of early pruning is the removal of the vermin that infest the points of the shoots of Plums and Cherries. All prunings ought to be gathered up at once and burned, and so destroy countless eggs of these pests.

C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

A SWEET PEA GARDEN.

DR. PHILLIPS of Malpas, Cheshire, is a man in the prime of life, whereas Dr. Sweet Pea Phillips is but a tender infant, who came into the world with the proverbial silver spoon in his mouth, in the very practical form for Sweet Pea growing of a head, a garden and a motor. Four years ago he was still in the Parsley bed. But gardeners, like poets and painters, are born, not made; hence he has already come to years of discretion, and his garden to-day is a model of what an up-to-date Sweet Pea garden should be—orderly, well appointed, highly cultivated and intensely interesting, because at the head of affairs there is a man who is willing to learn and who thinks for himself. I daresay the doctor read fairy tales in his youthful days, and probably often thought of the wonderful things he would be able to do if only some fairy were suddenly to give him a pair of seven-league boots. Motor-cars, as he has already found, nearly answer the same purpose. He is the happy possessor of one, and all he has to do is to get into it, turn a handle, press a lever or two, and it "does the rest," viz., in a very few minutes takes him over the few miles of road that intervene between Malpas and Ruabon and sets him down at the feet of that "master in Israel" whom we all seem involuntarily to call "Tommy" Jones. The doctor has sat at Gamaliel's feet to some purpose, and if the master were to visit his pupil's garden, as I had the pleasure of doing on the first Saturday in July, he would be a hard man to please if he was not entirely satisfied with the results of his teaching and advice.

ARRANGEMENT.

All the plants are grown in rows, and are "riced" (our local word for staking or sticking) with tall, well-feathered Hazel branches. These are put in from about 1 foot to 15 inches apart, and are widened out at the top and held in their place by cross pieces of wood, which are securely fastened at either end to the "rices." To further strengthen the whole, thin twigs are run in and out of them about three-quarters of the way up from one end of the row to the other. The combined effect of all this is to make each row practically two, and at the same time very strong and rigid. A distance of 4 feet is left between them, and the plants are planted about 9 inches apart. The first, third, fifth, seventh, &c., are trained to one side and the alternate ones to the other. Counting each row twice over, the collection of eighty varieties would extend for nearly half a mile if they were placed end to end. None but the best and newest varieties are grown, and practically they are all Spencers. To facilitate comparisons all the kinds of one colour are placed together. Pinks, maroons, yellows, reds, crimsons, lavenders, &c., stand side by side as far as possible, and so practically each one has the same light, position and soil as another. This is, naturally, of great importance in judging their respective merits for the show table. This is the first object for which the doctor grows them.

CULTIVATION.

The ground is trenched 3 feet deep, and cow-manure and blood and bone are freely incorporated in the lower part of the soil. The doctor believes in gentle feeding from the start. Twice a week a weak solution of some liquid manure is regularly given, among others that sold by Mr. Thomas Jones of Ruabon. This he has the greatest faith in. Each plant is trained to a single stem, and all side shoots are kept cut off, with the exception of one, which is allowed to grow so as to take the place of the main stem whenever it has to be cut off. In order to keep each plant in its proper place frequent tyings with raffia are necessary; really under the highly artificial conditions here practised the tendrils are only of very secondary value—in fact, they would not be missed if they were not there. I cannot do more now than merely refer to the final preparations of the last few days, which are necessary to secure good "fours" on good long stems. There is a great deal in knowing exactly what to do at this critical time—whether to top the plant or only to cut off every flower-stem above the one or two selected for the show, what manure to give to intensify the colour or enlarge the flower. All these things and several others have to be considered, and it is the judgment displayed in controlling them at this critical juncture that does so much to make or mar the exhibitor's chance of a prize.

VARIETIES.

I have headed my article "A Sweet Pea Garden"; possibly I should have styled it "A Garden for Sweet Peas," for it is not for any spectacular effect that they are grown here, otherwise the selection would possibly have been different, and such kinds as Bolton's Pink and A. J. Cook would not have been omitted. It is a florist's garden pure and simple. Everything is subservient to the one idea of success on the exhibition table. As such it has a distinct interest of its own. I am afraid I was very much like an interviewer on the occasion of this particular visit, and plied the doctor most unmercifully with questions, but he was very good-tempered and did not seem to mind a bit. The result is that I am able to give you his views to a large extent, and although they are the views of a man who simply grew an ordinary mixed hedge of Peas three years ago—that is, in 1908—they are the views of one who has studied them and lived among them ever since, and who at his first show (Shrewsbury!) last year out of three exhibits gained one first prize and two seconds.

My friend's favourite Pea was Mrs. Hugh Dickson. He described it as an improved Mrs. Henry Bell, and what must have been very satisfactory, every plant was true. Syeira Lee; Aldersey's beautiful pale yellow ground, Olive Ruffell; Sydenham's Sunproof Crimson, which he describes as really sunproof and which does not spot with rain; Clara Curtis (Unwin's stock), which was very fine indeed; Helen Grosvenor, which was absolutely true, and which is a peculiarly bright flower in the garden; and Paradise Apple Blossom were others which he considered particularly good. I was very much struck with the fact that many varieties seem to be much better when they come as sports in another variety than when they come from a true stock. For example, Olive Bolton, which is a lovely pale rose on a white ground, and which has an almost circular standard, is always very good when it throws John Ingman; so, to John Ingman from a true stock is never so fine an of such a good colour as when it comes as a spo Breadmore's new Dazzler and Edna Unwin we very similar; one noticeable feature in them w the bright rose wings, which in some flowers look like secondary standards at right angles to th principal one. Aldersey's Ruby was the same typ of flower, but I noticed it had much more orange i its wings in old flowers, and in its young state it colouring is unique. I consider this a magnificen introduction. Among the crimsons Mrs. Dunca was marked at once by the very deep crimso shade of its standard. It seems inclined to thro "threes," and so it has not such a high value fo the show table as if it gave "fours," but all th same it is a distinct, rich-looking bloom.

Elsie Herbert, Distinction and Picotee were a side by side, and a very careful and minute com parison failed to show me any difference betwee the three, except that the pedicels of Distinctio were longer than in the other two. Evelyn Hemu and Mrs. Breadmore were exactly the same if on took flowers of the same age and put them togethe Whatever difference of growth there may be i these when they are grown as ordinary garde plants seems to die out when they are highl cultivated. So, too, no one would be able t separate Kathleen Macgowan, Flora Norton Spence and Zephyr as the doctor has them in his garde Mrs. C. Foster, Masterpiece and Asta Ohn ar rather alike. Last year I thought Asta Ohn on of the best of all Peas, so I was glad to have m opinion in some way confirmed by being told tha of the three just mentioned it was the best. Dar colours are out of favour; consequently, as an up to-date garden, I found they were not ver strongly represented. Paradise Bronze, Othell Spencer and Charles Hemus appealed very much t me; so, too, did the bluey Douglas Unwin and th more maroony Silas Cole; but, then, I am ver fond of these rich dark shades. Everyone like to hear about novelties and big things, so I mus not leave out the waved pink Marjorie Linze which seemed to be the largest Pea in the garde and the rosy heliotrope white ground Mrs. R. H Carrad, which is certainly a break in colour, an should be on this account of value.

CONCLUSION.

It says much for the Sweet Pea that it shoul inspire a man with the enthusiasm that it has don in the case of the doctor. It may be that medic men are more easily infected in this way tha ordinary mortals, just as, fortunately for us, the seem to be more disease-proof. I remember s well how Dr. William Bell, who for years was ou family's medical attendant, started a most succes ful Rose show at New Brighton. And everyon in Ireland knows Dr. O'Donel Browne and ever book-lover the pathetic pages of "Flowers an Gardens," the dying legacy of Dr. Forbes Watso Dr. Phillips brought his infection from Pen-y-la Ruabon, possibly a little from Whitewell. H is now a disseminating centre at Malpas. *A prop* of this let me quote a passage of the Rev. W. T Hutchins, America's early enthusiast, which came across in "All About Sweet Peas" (1894 "It marks an epoch in the life of a flower lov when he first succeeds in growing this new-o flower so as to bring out its true thrift and luxur of vine and lavish wealth of blossom. The writ will always remember the day when he saw Swe Peas thus grown for the first time by a gentlema who for several years carried off the first pri from the Boston annual exhibit." It is so. T see a thing well grown is one of the greatest of th joys of the florist. To grow a thing well is to mak such joys possible.

Whitewell Rectory. JOSEPH JACOB.

THE GREENHOUSE.

THE KALANCHOES AND THEIR CULTURE.

THOUGH about two or three members of the genus have been grown in botanic gardens for a long time, it is only within the last decade or so that the Kalanchoes have come prominently forward as decorative plants for the greenhouse. Botanically, they are nearly related to the Crassulas, hence are all more or less of a succulent character.

The first species to attract attention as a flowering plant, and which is still one of the best, is K. Flammea, of which seed was sent to Kew from Somaliland. The resultant plants flowered in 1897, but it was two or three years before the merits of this Kalanchoe were fully recognised. Once this happened, the plants soon became popular, and it is now very generally cultivated where a succession of flowering subjects has to be kept up throughout the year. The blooming period of this Kalanchoe is, as a rule, during the months of May, June and July. It is far too well known to need any detailed description; therefore a few words on this subject will be sufficient. The leaves, which are arranged oppositely on the stout, fleshy stems, are from 2 inches to 3 inches in length, ovate in shape and of a thick, succulent nature. The flowers, of which great numbers are borne in a terminal flattened umbel, are of an orange scarlet colour, and in shape very suggestive of those of a Bouvardia. They remain fresh and bright for a considerable time.

Another species, K. Dyeri, was given an award of merit by the Royal Horticultural Society in February, 1907. This first flowered at Kew in 1902, is a native of Nyassaland, and is altogether a larger plant than the preceding. Growing freely, it will reach a height of 3 feet to 6 feet, the stout, upright stem being furnished with broadly ovate leaves quite 6 inches in length. The pure white Jasmine-like flowers are borne in terminal heads and are individually over 1 inch across. Flowering as this does in the winter months, it is particularly valuable, and in a warm greenhouse a group of it makes a good show.

K. Bentii, introduced from Southern Arabia about ten years ago, is less showy than either of the preceding; but, still, it is an interesting and pretty species. It is an upright plant, with curious sub-cylindrical leaves and comparatively small terminal heads of flowers, which, white when fully expanded, are in the bud state tinged with pink.

K. kewensis is a hybrid between K. Flammea and K. Bentii. The flowers of this are of a bright rose pink colour, while the leaves, curiously enough, are more or less pinnatifid.

K. felthamensis is also of hybrid origin, having been raised at the Feltham nurseries of Messrs. Veitch by Mr. John Heal, who may be said to have created many beautiful classes of flowering plants. This hybrid somewhat resembles K. Flammea, but the leaves are larger and of a more metallic tint, while the flowers are also larger and deeper coloured.

K. Ena is another Veitchian hybrid, with large heads of deep crimson flowers. Besides these there are many other species, but those above-named are about the only ones that can be obtained from nurseries.

The culture of the Kalanchoes presents no particular difficulty, provided a few points are borne in mind. From their succulent nature they need to be kept fairly dry during the winter, while coming from Somaliland, as K. Flammea does, this and its hybrids need a structure with a temperature ranging from 50° to 60° during the winter. An occasional night drop to 45° will, however, providing the plants are dry, do no harm. Cuttings of all the species strike readily enough if taken during the spring or summer months and dibbled firmly into well-drained pots of sandy soil. They should then be given a good light position in a warm greenhouse. Seeds of K. Flammea are, however, often available, and from these young plants can be readily raised. A very suitable compost for Kalanchoes in general may be made up of two parts loam to one part thoroughly decayed leaf-mould and a liberal sprinkling of silver sand. As with most succulents, the plants should have plenty of sunshine except during their flowering period, when they had better be shaded from the direct rays of the sun, as so treated the blossoms remain fresh and bright much longer than when fully exposed to the sun. Good examples of K. Flammea can now be obtained at a moderate rate. Among other desirable features is the fact that the flowering season extends over a considerable period, as from one head a succession of flowers is kept up for a considerable time. H. P.

PRIMULA FORBESII.

THIS lovely Primula should be grown far more extensively than it is, as it is easy to grow, pretty and very floriferous, and it only needs the shelter of a cool greenhouse during winter. Seeds should be sown during February or later, as may be desired, in a temperature of 50° to 60° Fahr., and the seedlings potted on when fit to handle, using a compost of three parts turfy loam, two of leaf-soil and a dash of silver sand. When established they can be potted into 4½-inch pots, using a similar compost.

During the summer months they can be stood in a shady frame. It is advisable to pick off all flowers formed during the summer. In October the plants can be brought into a greenhouse with a temperature of 45° to 50° Fahr., where they will bloom the whole winter, often with thirty to forty spikes at a time. They make a brave show with their bright flowers of varying pink shades. As they go out of flower, about April, they can be divided and placed into 3-inch pots, seeing that each small piece has a few roots, and by this means they can be extended indefinitely and a large stock soon be worked up. Small plants in flower make pretty table plants, while, if desired, they can be planted out on a rockery during summer in a slightly shaded position. Cut blooms will last nearly three weeks in water. As mentioned before, the colour is of various shades of pink with a yellow eye, the effect of which is greatly heightened by the mealy stems. The height is about 1 foot.

St. Peters, Kent. W. P. WOOD.

LUCULIA GRATISSIMA.

A DIFFICULT PLANT TO GROW.

ALTHOUGH this is a difficult plant to grow and about the most difficult to propagate, it is well worth all the care and labour spent upon it. There are few flowers more delicately tinted as regards colour, and none surpasses them in delicious fragrance. It is not a climber in the true sense, but it does best when the branches are trained under the roof glass and near the front glass of the structure. A west or north-west aspect suits the plant best, though it may be grown well on the north side of the house. I have succeeded in growing a fine plant on the south side of a large span-roofed greenhouse more than 60 feet long. The plant occupied a space about 9 feet long and 6 feet wide, and annually bore nearly 100 trusses of blossoms. I do not advise amateurs, however, to select a south position, as much shading is necessary in summer-time, and even then many large leaves are lost.

The leaves are very large, almost the size of those of the India-rubber Plant, but they are extremely delicate; and if any cultivator is unfortunate enough to get his plant infested with mealy bug or brown scale, he must clear away the insects by the use of clean, tepid water and a sponge. The foliage is so delicate that nearly all insecticides used at a strength suitable for stove and greenhouse plants generally would cause the leaves of the Luculia to drop off. If insecticides are used, they must only be at half strength. Well drain the border with clinkers and broken bricks; then put in fibrous loam two-thirds, leaf-soil one-third, and a small quantity of old mortar rubble to a depth of 1 foot. When the plants are established, give abundance of water in the summer-time, and also put on a top-dressing 1 inch deep every year about June. Very little feeding is needed. B.

THE NATIONAL SWEET PEA SHOW. (*See page* 369.)

THE ROSE GARDEN

ROSES ON BANKS.

I HAVE frequently been surprised that more use is not made of the creeping Roses to cover banks, such, for example, as are often found at the upper side of a lawn and which were formed when cutting out soil to obtain a level court for tennis or croquet. To cut the turf upon these banks occupies much time, and cannot be done so easily with a machine as in the case of level ground. Recently I saw just such a bank that had been covered with creeping Roses, and already the green leafage and promising buds are pleasing; and if they turn out as well as they have done the past two summers, they will leave little to be desired. One point it may be well to bear closely in mind is not to use any with a tendency to upright growth. Crimson Rambler, Philadelphia Rambler, Queen Alexandra and similar varieties would need much labour in pegging down, or they would spoil the contour of the bank. In addition such varieties resent being so closely pegged, while the young shoots are apt to snap off. Fortunately, we have a wide choice of Roses that naturally creep on the ground, and it will be well to confine ourselves to these. By so doing we avoid much labour and still clothe the bank in a uniform manner. There is not much to do in the way of pruning—simply cutting out a few of the older growths at any time when the opportunity occurs during the winter months or early spring. It is surprising how quickly a bank can be clothed with a few of these rapid-growing varieties; in a couple of seasons it is a mass of Rose growth and bloom. The plants may be in one or more rows, according to the height of the bank; but I would plant them at least 6 feet or 8 feet apart, as they spread so quickly and soon get overcrowded if placed much closer. No particular care is needed as regards feeding, for these are a very accommodating class of Rose; but, of course, if the soil is poor, some help will be best. During a dry season, too, it will be advisable to water freely, applying this towards the top of the bank. I name below a few of the best of the older varieties: Ruga, pale flesh, sweet-scented and with glossy foliage; Bennett's Seedling (an old friend of seventy years' standing), semi-double, white; Gracilis, bright pink, handsome foliage; Rampant, pure white. During recent years we have had a number of wichuraianas and their hybrids that are admirably adapted for such banks as are under notice. Nothing could excel the white wichuraiana for this purpose. It remains in flower throughout the season, prefers to creep on the ground, and has the glossy green foliage that takes the place of grass. Elisa Robichon is salmon buff; Evergreen Gem, yellow and buff; Jersey Beauty, pale yellow; Delight, carmine; Gardenia, yellow and very fragrant; Réné André, saffron and orange red; Minnehaha, a paler form of Dorothy Perkins; while the last-named must not be missed. From the above one can select a range of colours; but the one that to my mind is best of all is the white type of wichuraiana. A. P.

ROSA PERNETIANA.

WHEN that grand old rosarian, the late Thomas Rivers, received from Signor Manetti a seedling Rose which has become famous as the Manetti stock, no one questioned the fitness of the name, for surely the discoverer or producer has a perfect right to name a Rose as he pleases. Why, then, should not the delightful tribe which M. Pernet-Ducher created with his wonderful Soleil d'Or be known as Rosa pernetiana according to the eminent raiser's own wishes? Yet we find growers of repute ignoring the designation Rosa pernetiana, and instead they term them "Hybrid Briar" Roses or Hybrid Teas. This is altogether misleading, and should be severely condemned. M. Pernet-Ducher's beautiful novelty, Arthur R. Goodwin, and the charming semi-climber, Rodolph Gravereaux, together with the immensely popular Lyon Rose, are all classed by the raiser as belonging to Rosa pernetiana, and every fair-minded rosarian must admit that the raiser should have a free licence in this matter and his wishes respected; but to designate them Hybrid Briars and to class Lyon Rose as a Hybrid Tea is absurd, for the latter is as far removed from the Hybrid Teas as the Moss Rose from the Bengal.

A BEAUTIFUL WICHURAIANA ROSE.

PROBABLY in no race of Roses is the fact more manifest of the dominating influence of the pollen parent imparting its colour to the offspring than in the charming and popular group of wichuraiana hybrids. In a variety now before me, Leontine Gervais, we have represented, if perhaps a little paler, the charming colouring of the well-known Tea Rose Souvenir de Catherine Guillot. Its colour is coppery red in the bud, opening to rich salmon and apricot, fading to yellowish pink, a lovely combination of tints. It is one of the most beautiful of this charming group. The flowers are produced in clusters of from three to ten, and they are well displayed on the plant. The foliage is a dark olive green, shining like Camellia leaves. It is a vigorous grower as a weeper, pillar or trellis plant. It begins to flower about June 20 with me, and continues for some time. This variety and Réné André will be difficult to surpass for beauty of tints, and when well grown, as they deserve to be, it is marvellous as to the size of the open flowers, some of them measuring nearly 4 inches over. Leontine Gervais was raised from R. wichuraiana crossed with Souvenir de Catherine Guillot, and very strangely from the same cross we have Alexandre Trimouillet, Emile Fortepaule, Valentine Beaulieu and Pinson, all perfectly distinct. What will be the outcome of crosses between R. wichuraiana and some of the R. pernetiana group, such as Lyon Rose, Entente Cordiale, Arthur R. Goodwin and Viscountess Enfield, it is difficult to surmise; but I shall be surprised if some startling colours are not the outcome. It would seem that single Roses used as seed parents are more readily influenced from a colour point by the colour of the pollen parent than are the more double forms, and amateurs will do well to remember this. If wichuraiana crossed with Xavier Olibo can give such a magnificent colour as Diabolo, why not a very dark variety from a cross between R. wichuraiana and Louis Ricard, Chateau de Clos Vougeot or Gloire de l'Exposition de Bruxelles?

STANDARD ROSES FROM CUTTINGS.

[*Reply to a Correspondent.*]

UNDOUBTEDLY a standard Rose could be raised from a cutting. It is only a question of time, and although an amateur might find pleasure in the work, it would not pay a nurseryman to raise his standard Roses in this way. The *modus operandi* would be, briefly, as follows: Select in September some well-ripened shoots of good free-growing Roses, such as Ulrich Brunner, Frau Karl Druschki, Hugh Dickson and Mrs. John Laing. The shoots should be those of the current year, and must be firm. Cut them into lengths of about 8 inches and cut each level at the base with a sharp knife just below an eye. Remove all eyes from the growth except two at the top. Just slice them off thinly with t knife, not pick them out so as to make an indenti Select a plot of ground well in the open, and if is a clayey loam, so much the better. Have a fu sized spade and dig deeply; then cut down t soil that has been dug, making a wall of fresh dug soil about 8 inches high. Put about 1 in deep of sharp sand in the bottom; then lean up t cuttings against the wall, placing them abo 12 inches apart. Remember that the cuttin have to remain here three or four years, perha more. Now dig up the soil to the cuttings and ma them very firm, especially at the base. The ro should be about 2½ feet apart, so that one must d up this much before setting out another row.

During the winter the ground about the cuttin should be covered with some leaf-soil or peat mo litter, something that will protect them a litt from frost; but even then the cuttings will raised 1 inch or so out of the ground. When frost have gone, say, about March, push down the cu tings and hoe between the rows. During May Bamboo cane should be placed to each cuttin and as the new growth appears tie it to the can If the second eye sends out a shoot, this should b suppressed, as only one shoot is needed. Do no check upward growth in any way, not even in th second year. Just allow the shoot to grow as ta as it will. The third year, in March, cut back to th desired height and allow three or four eyes to brea near the top; the remainder, when they break should be pinched back, leaving them about 1 inc or 2 inches in length. The foliage of these sid shoots or laterals assists in strengthening the sten and may be kept on until the fourth year, whe they can be removed, as by this time a fairl strong stem will have developed. The three four eyes left to form the head should not be stoppe but any lateral eyes they themselves send out mu be suppressed, as it is better to start with a hea having three or four good growths than a lot weaklings.

Rambler Roses could be trained as standards this way, and would make lovely weeping plants so also could the Hybrid Japanese Roses, such Conrad F. Meyer. Short standards of most kind especially the Polyantha Roses, could be thu raised, also the lovely Monthlies, such as Hermos and Comtesse du Cayla. I have this year put some long growths of Manetti cuttings, in whic I intend to bud some of the Polyantha Roses, suc as Baby Rambler. I once saw in a Guernse nursery long growths of Rosa polyantha stock p in as cuttings, and in the stem Maréchal Niel an others were budded, making splendid large head but, of course, very slender stems. This, how ever, can be remedied by means of the cane Japanese Roses raised from seed or cuttings w also make good stocks for standards simply b reducing growths to the best shoot and trainin it upright, then budding in the stem, or barrel it is termed. I have seen quite large heads such as K. A. Victoria produced in this way.

ROSE LENA.

FOR intensity of colouring I know of no Ro among the apricot shades that can compare to th gem. There is a perfect glow about its delightf buds, and the intense apricot hue is well mai tained throughout the petals save a slight paling the edges as the flower ages. It is, I have doubt, the parent of that other beautiful so Souvenir of Stella Gray, although there is not qui the shapeliness of the bud that we have in Lena, an there is more of a reddish hue in its buds. these two Roses Messrs. A. Dickson and Sons ha given us most delightful colours, and we can on hope they will be fortunate enough to blend the special shades with their large-flowered strain. P.

TREES AND SHRUBS.

A HEATH-LIKE SHRUB.

(FABIANA IMBRICATA.)

THE tiny, angular leaves pressed closely to the stem and white, tubular flowers of this shrub are very suggestive of those of a Heath, and people not uncommonly remark on its Heath-like character when passing a plant. It has, however, nothing to do with the Heaths, and is not even a distant relative, for it belongs to the Solanum family, and has for its associates such shrubs as Cestrum and Lycium. Fabiana imbricata is a native of Peru and adjacent countries, where it is known by the name of "Pichi." From a knowledge of its native country we should not look for extreme hardiness in the plant, and such is the case. For Cornwall and places with a somewhat similar climate it succeeds admirably out of doors, and fine examples may be noted occasionally either in the open ground or against walls. In less favoured localities it cannot be called hardy; therefore, if a position against a wall with a south or west aspect cannot be afforded, it should be grown in a cool house, where it will be found to give entire satisfaction as an evergreen ornamental shrub of free-flowering qualities. It may be found at any height from 1½ feet to 4 feet, and the flowers are borne freely during May and June. Cuttings of small shoots root readily in sandy soil in a little heat either in spring or early autumn, while loamy soil suits the plant admirably. For pot culture good fibrous loam, with a little leaf-mould and sand, are necessary. W.

ABELIA FLORIBUNDA.

THIS beautiful and distinct kind of Abelia seems to be becoming more of a favourite for flowering in pots; at least, several examples have been shown at the last two or three meetings of the Royal Horticultural Society. The Chinese Abelia rupestris is fairly well known as a twiggy shrub, clothed with very bright shining green leaves and pretty pinkish flowers borne throughout the summer months. From this Abelia floribunda differs widely, forming as it does a looser-growing bush, clothed with small, deep green leaves. The flowers are long, tubular in shape, and borne in drooping clusters at the ends of the branches. They are of a bright magenta red shade, and form a very striking feature. On a warm south wall this Abelia is hardy in favoured districts, but in other places it needs glass protection. In the narrow border outside of the Orchid House at Kew it grows and flowers freely, the plant being trained to the wall of the structure. It is, however, so striking when in bloom as to well repay greenhouse treatment. This Abelia is a native of the mountainous districts of Mexico, and was introduced as long ago as 1842, but is even now not much grown. H. P.

CLIANTHUS PUNICEUS ALBUS.

THE typical, crimson-flowered Clianthus is a native of New Zealand, whence it was introduced into this country in 1832. It is popularly known by the names of Parrot's-bill and Lobster-claw, the latter title having reference to the shape of the blossoms. It is a common and well-known plant in the South-west, being found in the majority of gardens, and in that district is perfectly hardy. Where it can be grown on the open walls, as in Devon and Cornwall, it is deservedly a favourite, since it presents in the month of May a glowing sheet of vivid colour that is rivalled by nothing but the Fire-bush (Embothrium coccineum), which tree, in Cornish gardens, presents one of the most glorious sights it is possible to conceive when it is a cloud of brilliant vermilion. Though generally grown against a wall, specimens in bush form are sometimes met with, and two fine bushes in a South Devon garden are many feet in height and diameter, and flower magnificently. It is, however, seen at its best on a wall, as it then presents a larger expanse of colour than when grown in bush form.

In South Devon the crimson type generally commences to flower in midwinter, and a few expanded blooms can usually be cut on Christmas Day. From that date onwards the blossoms are borne in gradually increasing numbers, until in the month of May it reaches the zenith of its beauty. Then the whole wall is covered a flame of bright crimson splendour. The plant under notice is about 17 feet in height, and on the same south-west wall, some 6 feet distant, is the white variety, which was introduced a few years ago. This is at present only about half the height of the other plant, but flowers quite as freely as the type. The blossoms are not of a snowy whiteness, but have a suspicion of green in them, and where there is only room for one plant the crimson type should certainly be selected, as it is far more effective. However, when the two are grown on the same wall, they afford an attractive contrast.

The finest specimen of the type I have met with must be considerably over 20 feet in height, as it has reached the eaves of the house on which it is growing. The white variety rarely comes true from seed, as it has a way of throwing back to the crimson type. We make a point of cutting off the flowers as soon as they are faded. If this was not done many hundreds of seed-pods would be formed, which would inevitably considerably weaken the plants. When the flowers have been removed the plants are vigorously syringed every evening, and this is continued during the whole summer. As the overhanging eaves prevent the rain from falling upon them, they would become dust dry if they were not syringed, and when they are dry they are attacked by thrip, green fly and red spider, which weaken them to such an extent that little or no fresh growth is made; but with liberal nightly syringing these pests do not make their appearance. WYNDHAM FITZHERBERT.

THE FLOWER GARDEN.

A GARDEN OF IRISES.

SEEING the great and ever-increasing wealth and beauty, as well as variety, of the Iris family, and remembering the many months of the year during which various kinds furnish our gardens with delightful flowers, the enthusiast may be pardoned, I think, for being content with a garden of Irises and nothing more. To such an one a garden on these lines would not be monotonous. For each of the kinds in turn, a garden given over entirely to the Iris family would, do btless, prove of exceptional interest. In saying so much, however, one must not be taken as advocating in any large degree a garden wholly composed of species and varieties of Iris to the exclusion of all else that is beautiful or desirable, even though, to some extent at least, this much may be suggested by the title above adopted. Rather would we prefer to see a much larger number of specialists who, if not content to possess a garden of Irises alone, would certainly not be satisfied until an Iris garden had become an established feature of which each might feel justly proud. Indeed, the Iris family is worthy of this if nothing more, for one cannot tire of a beauty which is nothing if not unique. Then, again, one has only to look casually at the great accumulation of the species or the varying types or groups to get an idea of their far-reaching adaptability to the varying aspects or phases of gardening. For example, one might freely plant a sunny rock garden with quite a host of early bulbous sorts, such as reticulata, persica, Histrio, histrioides, bakeriana, Tauri and others, and still further embrace such gems as cristata, lacustris, gracilis, or tectorum, with every hope of success. Or one might further specialise with the early bulbous sorts in the cold house, and by growing them in pans preserve all their beauty intact.

Of dwarf sorts for the open there is abundant material in Iris pumila, Chamæiris, orchioides and others akin, the former constituting a miniature group of Flags, the advent, as it were, of that

THE NEW IRIS ALBOPURPUREA COLCHESTERENSE. (*See page* 364.)

greater race of Flags whose earliest members put forth their first flowers late in May, presently to be followed by an innumerable company whose unique beauty entitle them to the pride of place in the hardy plant garden throughout June. At this time, too, the Spanish Irises are charming. Indeed, these were introduced weeks ago, and because of their adaptability to gentle forcing have played their part in many a decoration since. Cheap, beautiful and, above all, easily grown, there is really nothing to hinder their being planted in thousands or tens of thousands, just as there is nothing to compare with their elegant forms, whether in the cut state or in the garden. From out of the great Flag race I desire to direct special attention to those of the pallida set because of their noble bearing. To measure such things as these by a solitary clump or border example is to get but a feeble impression of their worth, and a fairer estimate of their value is obtained when the plants in beds alone send forth from glaucous tufts of sword-shaped leaves 3 feet high flower-decked stems comparable to nothing but themselves. These pallida forms represent the highest type of excellence in the Flag Iris, a great race of hardy flowers of the easiest culture.

Of quite another type is I. lævigata, or I. Kæmpferi as the group was originally known. "Clematis-flowered" is a catalogue term for the group, though the flowers recall or suggest but little of those of the climber in question. Apart from this, however, there is nothing more fascinating in the entire race, the flowering period bringing us well into the end of July, and often much later than this in certain districts. Though there are Irises with them and even after their time, the flowering of the Japanese Flags, as they are also called, may be regarded as a fitting finale to a display that has been maintained unbroken for many weeks past, and no garden could possibly be complete without its complement of these things. Taken as a whole, they are of a decidedly moisture-loving nature, the effect of them in water-side gardening being unique. By water-side gardening it is not intended that the roots should be continuously submerged, or even partly so, and it will suffice in a large number of instances if the root-fibres are in touch with moisture. Failing this, the plants may be well grown in cool and shady places, while some, indeed, given nothing more than ordinary field culture, are seen to do fairly well. In gardening affairs, however, it is best to so utilise the plant that the longest display possible is assured at flowering-time, and of the known methods of cultivation moisture-laden soils or their near equivalent of cool and shade are the best. Those named by no means exhaust the list.

In new, or comparatively new, races the great charm of the Regelio-Cyclus Irises must take first place, and some of these, if not wholly replacing the Cushion Irises in their quaint or picturesque beauty, afford new colours and flower at a most useful time.

E. H. JENKINS.

THE JAPANESE IRIS ON A HILL-TOP.

IT is usually supposed that the Japanese Iris flourishes only by the water-side, but the illustration, taken, through the kindness of Messrs. Wallace of Colchester, represents this flower of wonderfully diversified colouring in ordinary garden soil. We have written so frequently lately of this flower that further reference to it is needless. The point is that one of the most beautiful and interesting of all Irises is at home almost anywhere. On another page an illustration is given of the new Iris albopurpurea colchesterense which was recently given the award of merit of the Royal Horticultural Society, and was shown by Messrs. Wallace. It is described in THE GARDEN of July 9 last. Few Iris flowers are more beautiful. It has exquisite colouring and vigour of growth.

WHITE GLORY PEA (CLIANTHUS PUNICEUS ALBUS) IN SOUTH DEVON.
(*See page* 363.)

THE VARIETIES OF CHRYSANTHEMUM MAXIMUM.

THE newer varieties of the above not only give increased size and substance of flower, but also, in many cases, a much dwarfer habit, vigorous foliage that is darker in colour, and a much extended flowering season, so that if planted in varie there is a succession of bloom from the middle June until the end of September—some three a a-half months. Mrs. Charles Lothian Bell is o of the dwarfest, seldom taller than 2 feet. It h very large flowers, freely produced from the e of June onward. King Edward has equally lar flowers, but is of stronger habit and somewh later, not, as a rule, flowering before the midd of July. W. H. Gebb is another fine sort, abo the same season as Mrs. Bell and W. Robinso yet another rather older variety. Vomerensis another favourite.

A. G. B.

FRUIT GARDEN.

FRUIT NOTES.

SUMMER PRUNING.—Those who are believe in summer pruning mu follow it up closel or it will probably as much harm as will good, since the pinching of t shoots back to the regulation s leaves must necessarily result the development of lower bud which will make a thicket of usele spray unless they are controlled their turn. This successive wo must be done regularly accordi to necessity, and the system th cannot do other than good to t trees. It has the great advanta of admitting light and fresh a to the basal buds at the sa time as it concentrates sap them, and they plump up bett and gain a greater power for t next season.

BUDDING.—As a rule, amateu are far more partial to the bu ding of Roses than they are fr trees, notwithstanding the fa that the procedure in each instan is identical; perhaps they a wise in this, for it is almost c tain that the professional will ra the better and more fruitful tr However, those who would ta up the interesting task must s to it that the bark works freely enable the bud in its sheath to pressed well home, and that t bud itself is in the correct con tion for ripeness; failing obse ance of these two details t prospects of success are just abo nil. It is also imperative th the knife used shall be as sha as it can be made, with a view ensuring a perfectly clean wou that will heal quickly and event ally give a closer, firmer union. T months of July and August are usually best the operation, and, generally speaking, betwe the present date and the middle of next mon the natural conditions will be found most favo able. It is superfluous to describe the proce as it has been accurately illustrated in THE GARD on several occasions.

NETTING CURRANTS.—If the nets are not y in position, no further delay must occur, or the bi will have the benefit of the entire crop. Not on however, does netting preserve the fruits from t feathered visitors, but it also helps substantia to keep them in good condition over a more pr tracted period. Any convenient material may

utilised for the purpose. It is the common practice of many cottagers to use the old lace curtains, and if it cannot fairly be claimed for them that they are ornamental, they are indisputably useful, which, after all, is the principal thing.

STRAWBERRY BEDS.—The grower will probably find more than enough work to occupy his time among the Strawberries just now, provided that he likes to keep everything up to date. The earliest runners will be in excellent condition for transference to their permanent positions, and the sooner they can be got into them the better are the prospects for the succeeding season. It is necessary to thoroughly cultivate the soil, and in the vast majority of cases generous supplies of manure must be incorporated in the second spit or between the two layers, the former for preference. The lines should be set 2½ feet asunder and the plants 1¼ feet apart in them; at these distances the plants will crop admirably at once, and as soon as this is done each alternate one in the rows should be cut out to leave them for the second and third years of fruiting at 2½ feet in all directions. If, as is usual at this season, the ground is dry, it ought to be heavily soaked the evening before the planting is to be done, and the plants can be watered in afterwards if it is deemed necessary or desirable. Old beds which have finished cropping should be made scrupulously clean by the complete removal of every weed and the runners that are not wanted for increasing the stock. The surface of the bed should be subsequently hoed or forked over to open it up. This work is often left until later, but nothing is gained and something lost by the delay.

EARLY APPLES.—These are not conspicuous for their keeping properties, but are cultivated for immediate use, and the way to secure the finest flavour with them is to eat them direct from the trees. It is true that some will store satisfactorily for a short time, but even in the best of circumstances there is a decided loss if they are not consumed within a day or two of gathering. The amateur does not generally grow more than one, or perhaps two, very early varieties, and it is improbable that he will experience any real difficulty in taking and eating, or securing the assistance of his family and friends in doing so, straight from the trees. FRUIT-GROWER.

THE FERN GARDEN.

THE COMMON BRACKEN.

(PTERIS AQUILINA.)

AS we occasionally hear a good deal about the edibility of the young shoots of this Fern when properly cooked, which strikes us as a material point, seeing the great astringency of the adult fronds, we may well consider the Fern from another aspect, viz., its decorative value. In this connection we do not refer to the common form, though that is beautiful enough, but to the several far more beautiful varieties into which it has sported. The tendency of P. aquilina to spread is, however, so great that unless space is practically unlimited, it is desirable to restrict it, and this can best be done by sinking a barrel or deep tub, leaving the rim just projecting above the soil level. If this is filled with a good peaty compost, the Fern will in time assume the aspect of a large bush of an entirely unique character and form a very handsome object. Left to themselves, the robuster forms send out long underground roots or rhizomes, which travel even beneath gravelled walks of considerable width and invade the otherwise isolated flower-beds, where, though the fronds may be pretty enough, they are out of place. Treated, however, as mentioned, the Fern is easily kept in bounds, and pays its rent, so to speak. One of the best forms is P. aquilina percristata, which has not only splendid heavy tassels at all tips, but even the smaller divisions are tasselled also, while, as the fronds grow 5 feet high and are 3 feet wide, a group of such is a feast for the eye. We have a magnificent specimen of this in our suburban garden which we raised from spores some years ago and planted in a side bed in the autumn as quite a small plant. The following season its fronds were very fine, as it is a rapid grower. It then began to spread, and eventually entirely monopolised some 20 feet of the bed, growing always towards the north, and was finally only stopped by the terminal brick wall. It then began to crop up through the gravel of the path, and in a season or two invaded two beds in the centre of the garden, upon which a check had to be exercised by cutting it down to prescribed limits in the autumn. This done, it is quite easy to keep it down by topping any fronds which show, with the eventual result that the burrowing roots perish.

A FIELD OF IRIS KÆMPFERI ON THE HILLTOP. (*See page* 364.)

A rarer variety, and one peculiarly fitted for restricted space, since it spreads but little, is P. a. congesta. In this the fronds are densely congested and very leathery. They grow only about 2½ feet high, and form a dense mass utterly different from the normal. This, too, we raised from spores; but in five years it has not travelled more than a yard, its congested nature evidently being extended to the roots. The contrast between this and the other is marvellous. P. a. percristata bears spores but sparingly, but these have the curious faculty of yielding about 50 per cent. of a much more heavily crested and dwarfer type called P. a. grandiceps, a very fine form indeed which, though a traveller, well repays its room and is easily kept within bounds. These three are the finest forms of the species; but we must mention a fourth which is a curio. Structurally it appears to be exactly the same as the common type, but no sooner do the fronds commence to develop the side divisions than these curl up and tie themselves up into balls at their tips, the minor divisions lapping themselves tightly round the stalks in their endeavour to follow suit. The discoverer of this form in the Lake District found it on a steep slope, and described its appearance as that of large bunches of Grapes. This curious form has been successfully crossed with the first-described tasselled form; but as all the tassels were rolled up inside the balls, these had to be unravelled to display a difference. A very handsome form is P. a. revolvens, which has its side divisions gracefully curved backwards, while their tips become spirally twisted. We have found this at Windermere and elsewhere in quantities, and at Faygate in Sussex there are many acres of a prickly tasselled Bracken which in some places has quite replaced the common form. Quite recently we found a beautiful congested and tasselled form near Pitlochry; but as the plant will not bear removal during the growing season and that specimen was quite barren of spores, we could only add a frond to our collection and not a living plant. Owing to the difficulty of transplanting the Bracken, due to the rambling nature of its rootstalks and the depth to which they penetrate, the simplest way of obtaining specimens is to raise them from spores. This is easily done by sowing them thinly on the surface of peaty soil and covering them with a glass slip. The young Ferns develop far more rapidly than any other native species, the fronds rising larger and larger in succession and the characteristic rootstock speedily making its appearance at their base and then plunging downward into the soil. Spores sown in the early spring produce in this way plants with fronds 1 foot or more high by the autumn, and our plan is then to drop the contents of the pan intact into a hole prepared for it either in the open soil or within the confines of a tub or barrel, as previously suggested. The fronds then harden before they are cut down by the frost, and the roots will survive and send up stronger fronds the next season, while, curiously enough, despite the perfect natural hardiness of the Fern, if raised under glass and frozen in winter it is almost invariably killed.

CHARLES T. DRUERY, V.M.H., F.L.S.

GARDENING FOR BEGINNERS.

A BORDER IN A TOWN GARDEN.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—A good sowing of Summer or Round-seeded Spinach may now be made. This delicious vegetable is highly appreciated early in the year, and although there is generally plenty of it in the summer-time, there is a scarcity in the early days of autumn. By sowing in open quarters now Spinach will be available throughout September. Tomatoes in open borders and on walls will be much benefited by free applications of stimulants; in dry weather use weak liquid manure, and in wet, approved artificials. Both kinds of manure must be applied while the soil is moist. Side shoots grow strongly from the main stems at this season, and these must be pinched out while quite young. Only the main stems, the main leaves and the fruits must be retained; then the plants will prove most satisfactory. Feeding crops generally must now be the order. Many kinds need it and will be much benefited. Later on, of course, free feeding would do harm, as it would encourage luxurious growth which would not withstand the severe weather in winter. Every amateur should try to make the best use of all the tank liquid manure he can procure, and if there is none, then purchase a few bushels of half-rotted manure and place a peck at a time in a vessel holding 20 gallons of water. Put the manure in a bag, stir the water violently several times each day for two days, and then use it when clear at the rate of 1 gallon to 4 gallons of clear water. For Cauliflowers, Cabbages, winter greens in poor soil, Celery in trenches, Peas and Beans, thorough soakings of such liquid manure will be beneficial.

Flower Garden.—Dahlias are now becoming interesting plants; they will shortly be profusely flowered, and then where cut blooms are required in large quantities the cultivator will be glad he planted Dahlias. The great enemy of this plant is the earwig. The pests work chiefly at night, so that killing them at sight is a tedious and somewhat difficult matter. The first flowers that commence to fade should be cut off and fixed near the main stems for the earwigs to eat and hide in. Also some dry moss placed between two boards on the border near the plant forms a good trap. These boards and old blooms should be examined every morning and shaken over a vessel of water; in this way the pests may be destroyed wholesale. Feed the plants liberally with liquid manure, and mulch those that are growing in sandy soil. Some preparations must now be made for the propagation of bedding-out plants. It does not seem long since we were engaged in putting out the plants, and now, as the latter are in their prime, the amateur may be forgiven for hesitating to take off any cuttings. However, we must prepare for next year's supply, and Zonal Pelargoniums must first be dealt with. In the meantime boxes, pots and sweet, sandy composts should be got ready.

Fruit Garden.—Strawberries are popular with everyone, and we do not wish to have poorer, but better, crops each year. In order to maintain a high standard of excellence new plantations must be made every year, so it will be necessary to destroy a few of the oldest and most worn-out specimens to make room for new layers, or to form a fresh bed in another part of the garden, but all old plants should not be destroyed in one year. Directly the fruits are gathered, select those plants for destruction, and forthwith dig them up. Then deeply trench the soil and add some rotted manure to it. Leave the surface lumpy for a few days, or even two or three weeks; then break down the lumps, and the soil will be in grand condition for planting. The summer pruning of fruit trees must not be delayed any longer, as trees so treated do not require much winter pruning and they are greatly strengthened.

Greenhouse and Frames.—If convenient, wash both the glass and woodwork of greenhouses and paint the latter. It is a suitable time to do this work, as plenty of air may be admitted afterwards, which will harden the paint and not prove injurious to the plants. Vallotas and bulbous plants generally, which are now commencing to flower, should be watered with artificials or liquid manure. Sow seeds of Mignonette in pots in cool frames for winter and spring flowering. All kinds of plants intended for flowering in the spring must be duly repotted so as to prevent premature flowering, as if too much pot-bound they would do. Continue to pot Freesia bulbs and repot the most forward specimens. A. A.

A PORTION OF A BORDER IN A TOWN GARDEN EIGHT MONTHS AFTER PLANTING.

A BORDER IN A SUBURBAN GARDEN.

THOSE whose gardens are of limited area are often disposed to ridicule the idea that anything approaching an effective mixed border is quite out of the question; but the accompanying illustration should do something towards convincing sceptics that their ideas are wrong. The illustration shows part of a border in a garden not more than 20 square rods in area, and all the plants growing therein, with the exception of the Loganberry, which can be seen fruiting on the trellis fence, were planted in November of last year. Unfortunately, the photograph had to be taken at rather close range, and this eliminated a considerable amount of the border. Earlier in the year, before the herbaceous plants were very high, Daffodils and Wallflowers, with a few clumps of Darwin Tulips, made a bright display, an edging of blue and white Crocuses even earlier in the spring making an effective setting to the numerous green shoots that were being pushed through the soil. As soon as the Crocuses had finished flowering, Leptosiphon densiflorus hybridus was soon between the plants, and for several weeks this dainty little annual has made a brilliant display with its many and various coloured, star-like blossoms. Just previous to when the photograph was taken, and following directly on the Darwin Tulips, some long-spurred Columbines, the dwarf Mock Orange (Philadelphus Lemoinei erectus) and large clumps of the old-fashioned laced and white Pinks, as well as a few small plants of the new Pink Gloriosa, were flowering well, other plants that were showy at about the same time being Tiarella cordifolia rosea, Heuchera sanguinea and Geranium Endressii: the latter is still giving us its pink flowers freely.

The Canterbury Bells shown in the illustration are white and pink varieties of the cup-and-saucer type; the seeds of these were sown outdoors in June last year, and the clumps planted when the border was made in November last. The

AN IDEAL SPRAY OF THE NEW SWEET PEA MRS. W. J. UNWIN.

Delphiniums also are seedlings raised in the same way and sown at the same time. The Evening Primrose, which can just be seen at the far end of the border on the extreme right, is a chance seedling that sprang up and was allowed to remain in place of a dead Rose, and it has been delighting us now for several weeks with its large, Primrose-coloured blossoms. The Rose near the Loganberry is Mrs. John Laing, a variety that will, I think, thrive almost anywhere, and further along the fence, but not shown in the photograph, Roses William Allen Richardson and Dorothy Perkins run riot and intermingle their growths freely. By the time the first-named has finished flowering Dorothy Perkins will be a mass of pink, and the display is thus continued over a long period. The Loganberry makes an excellent summer screen. It opens its large green leaves early in the spring, and these are followed later by an abundance of white star-shaped flowers. At the time of writing we are gathering fruits that make, with Red Currants, excellent jam and tarts.

Plants that will flower later are the white Phlox Mrs. E. H. Jenkins, Aster acris, Boltonia asteroides, single Dahlias in several varieties, Sedum spectabile and border Chrysanthemums. These latter are just now growing in another part of the garden, and will be lifted as required with good balls of soil and planted to make good the vacancies caused by the removal of the Canterbury Bells and a few clumps of early sown annuals. It will be seen by the above list of plants that the owner of a small border can, by judicious selection, secure a good display of flowers over the whole spring, summer and autumn with very little expense. Beginners will find that all those mentioned are very easy to grow, providing the soil is deeply dug and well enriched for a start. Such a border as that represented gives great pleasure during a large portion of the year, and, of course, adds to the brightness and interest of the garden. One thinks of the old cottage gardens when looking at the mixed borders in the suburban garden. A certain charm is thrown over the surroundings of the home. H. H.

SELECTING SWEET PEAS FOR EXHIBITION.

Most beginners in gardening, when they meet with a reasonable amount of success, are fired with the laudable desire to exhibit their flowers, fruits or vegetables in one or more of the local shows which are held so freely in various parts of the country at this season. Sweet Peas, owing to their simple culture and free-flowering properties, are ideal flowers for the beginner to deal with, and well-grown plants usually give a number of sprays quite suitable for exhibition. But one so often sees inferior flowers staged that it is certain that beginners, and many amateurs who cannot be regarded as novices, do not really know what to aim at in choosing their flowers from the plants. One of the chief points to look after is the number of flowers on a spray, and also the way in which the flowers are placed on the stem. Under no circumstances should a spray consist of fewer than three flowers, and in many varieties it ought not to be difficult to secure a good number of sprays, each of which is made up of four blossoms. But if the flowers on the sprays of fours are badly placed, *i.e.*, crowded together so that their individual beauties cannot be plainly seen, then it would be wiser to select those with only three flowers. An ideal spray composed of four blossoms is shown in the accompanying illustration. This is the new orange flaked variety Mrs. W. J. Unwin, a large and quite unique coloured Sweet Pea which has a great future before it, and which was raised by Mr. W. J. Unwin of Histon, Cambs. It will be noted that each of the large blossoms is of good shape and stands quite clear from one another. Of course, a beginner with only a limited number of plants is not likely to be able to find a bunch of sprays all as good as this, but the illustration serves to show what ought to be aimed at.

Another point that the would-be exhibitor must pay strict attention to is to secure flowers which have not been spotted by rain. This year numerous examples of otherwise good flowers have been staged, but in every instance where they have come under the writer's observation such flowers have been passed over by the judges in favour of smaller, but cleaner, blooms. Then, again, there is the question of colour to decide. In these days of mixed stocks it is difficult sometimes for an expert to determine which is the true colour. However, the veriest tyro, with ordinary care, can see to it that he gets his bunch all of one colour. With self-coloured blossoms, *i.e.*, those where only one colour is present in the flower, the matter is not difficult: but with fancy flowers, or those with two or more distinct colour shades, more difficulty will be experienced. Then, again, it sometimes happens that a waved variety will throw a number of flowers with plain or hooded standards, as Etta Dyke is doing this year, and the would-be exhibitor must see to it that none but waved flowers are admitted to the bunch. Long stems, of course, tell; but if sprays of three or four blooms are insisted upon, the stems will, in most cases, be right. Growing flowers for exhibition becomes a delight and increases one's knowledge. H.

THE TOWN GARDEN.

Looking Around.—At this season of the year, when so many public parks, gardens and open spaces are so gay, there is much to be learnt by paying a visit to some of them and noting what is done and the materials used for the work. To the intelligent amateur, and particularly to those who are interested, there can be no better education than this, the only things necessary being pocket-book and pencil and an occasional hour's leisure. The outcome of such a visit will, I think, not infrequently demonstrate to the visitor that the simplest and often the hardiest subjects are capable of affording the best results when intelligently employed. This was even so in days when carpet-bedding was all the rage, and it is true to-day, when, as I think, flower gardening, and not pattern gardening, is more widely—as well as wisely — practised. The predominant feature to-day in all outdoor gardening is variety and change, as opposed to the pattern gardening of a decade or two ago that for weeks on end was but a repetition of other weeks, and at its best capable of nothing more elevating than had the drawing-room carpet been transferred to the lawn. To-day, however, the scene changes daily; at every turn colour contrasts or harmonies are presented, and in the most natural manner possible. In a future note I hope to deal with effective bedding arrangements, and in the meantime would suggest to readers generally the desirability of looking around for themselves.

A Pretty Blue Flower.—This is no other than the very charming Nemophila insignis, which, weather permitting—and one must write that—opens its flowers daily in great profusion. Unfortunately—the expression is used advisedly—its seeds are cheap, and, the packets being emptied often enough in a wholesale sort of way into the merest crack or circle of soil, the true value of this gem among bright blue flowers is lost. That it might have been otherwise, had the oft-repeated warning to "sow thinly" or "thin early" been followed, all gardeners know full well, while for those amateurs or beginners who closely follow this advice there is a harvest of blossoms—sheets of the liveliest blue—which no pen-picture can portray. Bare spaces where bulbous plants have

A BLUE FLOWER FOR THE TOWN GARDEN: NEMOPHILA INSIGNIS.

flowered may readily be clothed by the plant, while a seed or two sown here or there near a sunny ledge of rock will presently afford a picture of colour where no colour was seen before. This incomparable flower of the garden is a sun-lover, cheap and meriting the attention of all.

VEGETABLE MARROWS.—After planting, these are usually allowed to take care of themselves, save, perhaps, a watering now and again. Not infrequently such things are planted on manure-heaps, where the gross growth made is but a forerunner of the failure which follows. At other times a barrowful of manure is shot in a deeply dug hole and the plants put out with little more ado. From this it would appear that this useful subject was of a deep-rooting character, though it is not greatly so. It is far better in a general way to plant it in well-dug ground with fresh soil about the roots, and with the appearing of the first fruits to afford the plants a top-dressing of good loam and manure, about equal parts of each. It is also a good plan when the main branches are carrying one or two fruits to pinch out the point of the shoot, and thus enable the lateral branches, which often fruit the most freely, to provide their quota also.

PERPETUAL-FLOWERING CARNATIONS.—Young plants of these should have the branches tied up loosely, so soon as they are long enough, to prevent breakage and loss. In securing these the branches should not be bunched together besom fashion, but by threading the ties between the leaves allow the plant to remain as natural as possible. Gathering the foliage into a bundle and putting a tie around is both ugly and harmful. A similar remark applies to the tying up of all plants in beds or borders, the looseness resulting therefrom permitting a free circulation of light and air to the branches.

E. H. JENKINS.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Sweet Pea plant stunted (*Miss K. E. J.*) There is no sign of disease in the small, stunted plant you send, and we think the soil must be quite unsuitable. If you must grow Sweet Peas in this position year after year, we advise you to dig out the soil 2 feet wide and the same in depth, and fill in with soil from those parts of the garden where Sweet Peas thrive This will be a big undertaking, but is the only remedy that we can suggest under the circumstances. The name of the plant you send is Tradescantia virginica.

Forget-me-nots (*Myosotis*).—Sutton's Royal Blue and Dwarf Blue respectively should meet your requirements, both being excellent in their way, the first-named also being very early to flower. Occasionally the prices are not given to books when reviewing them, though these are to be found by referring to our advertising columns and where a large variety of the best gardening books are to be found. The plants named in articles are usually hardy enough for the British Isles; instances to the contrary from seaside gardens or favoured localities are not infrequently indicated either by the address of the writer or the name of the garden or locality. More definite information as to the hardiness of a plant or its adaptability to some particular locality can always be obtained by writing to the Editor.

Iris Kæmpferi not doing well (*R. T.*). If the whole of the Irises are like the sample sent, we fear they are foredoomed to a failure which sooner or later must ensue if these things are treated as bog plants. The plants delight in much moisture during their growing season, while constant saturation at the roots and submersion, whether wholly or in part, are bound to bring in their train that degree of stagnation which is fatal to the plants. These Irises are invariably more happy when planted in a prepared bed of loamy soil and manure 1 foot above the water-level. Thus placed, the root-fibres find the moisture they need, the crowns are amid healthier surroundings, and the plants luxuriate. Judging from the absolutely rootless condition of the specimens sent and the decay already apparent, the plants are quite worthless.

Narcissus bulbs not flowering (*Glendale*).—The bulbs sent are quite sound in the main, and their non-flowering is doubtless due to the depth at which they were planted and the poor soil at such a depth. We note the bulbs are in a rootless condition, which, if not due to long exposure from the soil, is sufficient to bring about the failure. Lift the bulbs and, having gradually dried them off in a cool place, plant them 5 inches deep in the border, but do not rely on them for flowering next spring.

Clara Butt Tulip leaves turning yellow (*F. S.*).—Without seeing the actual plants it is impossible to say what has caused the leaves in that one particular bed to turn yellow. As, however, you say that the bulbs are good and sound, it is in all probability a bad attack of what is known as "fire" in Holland and among Tulip-growers at home. If the bed is exposed to a cold cutting wind or if it has been frozen with moisture on the leaves and then exposed early in the morning to a hot sun, the probability is that one of these causes was the origin of the mischief. The outside skin of all Tulip leaves and flowers is very tender and easily ruptured (hail, for example, is disastrous for this reason), and when it is broken the special fungus which is popularly called "fire" soon finds it out and settles itself there and, unfortunately, spreads very quickly. It would be a wise precaution not to have Tulips in the same bed next year, or, if some must be there, the soil to the depth of 2 feet should be removed and fresh substituted. It is well to remember the bulbs will be weaker than usual after losing their foliage so quickly.

THE GREENHOUSE.

Successful Pelargonium culture (*Boothio*).—Two of the principal points in the successful culture of Pelargoniums are a free circulation of air and a good light position. Deprivation of one or other of these will quickly cause the leaves to turn yellow and drop, and that is no doubt the reason of your plants behaving in the way they do. It is this lessened quantity of light and air rather than the dry atmosphere of the drawing-room that causes the mischief. The roots should be kept in a moderate state of moisture, as if stood in water or allowed to get very dry it is particularly harmful to the plants. We are afraid that there are no means to prevent the trouble occurring, except to allow the plants to remain in the greenhouse and employ less sensitive subjects for the decoration of the drawing-room. Pelargoniums are among the most particular in this respect, but all flowering plants feel confinement in this way much more than those grown for the sake of their foliage alone.

Treatment of Aloes (*J. Rudd*).—We presume that your question refers to what is usually known as the American Aloe, whose correct botanical name is Agave americana. There is no doubt that the death of one plant and the ill-health of the others have been caused by wintering them in a structure much too cold and damp. They will doubtless now pick up during the summer, but you must be careful to winter them in a suitable place. In order to keep the American Aloe in good condition during the winter months it should be placed in a good light structure where the thermometer at no time falls below 45°. From the extreme succulent nature of the plant it needs very little water throughout the winter, while an excess of atmospheric moisture is at that time decidedly injurious to it. You gave us no idea whether your potting-house is heated with hot-water pipes or not, neither do you say the temperature maintained therein. Such being the case, we can, of course, advise no further; but unless the temperature of your potting-house is kept up to that above given, it will be useless to attempt to winter the plants there another season.

Growing the Gerberas (*F. J. H., Los Angeles, California*).—In this country the Gerbera in some places succeeds perfectly when planted in a narrow border at the foot of a warm wall and just protected from heavy rains during the winter. In most districts it is very satisfactory when treated as a greenhouse plant, provided it is grown in an airy, sunny structure. Throughout the winter the soil should be kept moderately dry, when the plant goes partially to rest. On the return of spring fresh foliage and flower-stems are pushed up, when a liberal amount of water should be given. From what one hears of the Californian climate, we should have thought that the Gerbera would have succeeded perfectly with you. We can only suggest that possibly the winter rains are too much, or perhaps the sun in summer is overpowering. In this country the Gerbera delights in all the sun possible, but the amount and strength of the sunshine in England cannot for one moment be compared with that experienced in California. Such being the fact, we should in your case be inclined to try the Gerbera in a spot somewhat shaded from the full rays of the midday sun.

Culture of Streptosolen Jamesonii (*Floral, Birmingham*).—In order to flower Streptosolen Jamesonii thus early in the spring, it must be kept in a warmer structure than when needed only for summer blooming. Cuttings of the young growing shoots should be taken as soon as they are available in the spring and inserted in pots of light sandy soil. In a close propagating-case they will soon root, and when hardened off must be potted singly into small pots. As soon as the roots have taken possession of the new soil, the tops of the young plants should be pinched off in order to ensure a bushy habit. The young plants must after this be given a good light position in the greenhouse and frequently syringed. During the summer a frame so situated that it is shaded from the full rays of the sun during the hottest part of the day will suit the Streptosolen well. Plenty of air should be given in order to encourage sturdy growth. If shifted into larger pots when necessary, the plants should be by autumn well-established specimens in pots 6 inches to 7 inches in diameter. For potting compost a mixture of loam, leaf-mould and sand is very suitable. During winter the plants should be kept in a structure with a minimum night temperature of 45° to 60° and be kept moderately dry, but by no means excessively so. Then, about the end of January, they must be put into a house 10° warmer, with additional atmospheric moisture. They will then start into growth and, if in good condition, should flower well.

Information about Palms (*Anxious*). — You give us no particulars whatever as to the conditions under which your Palms have been kept, and it is, of course, utterly impossible for us to state the cause of their ill-health from an investigation of two or three half-dead pieces of leaves. We may, however, state that one fruitful cause of Palms going wrong is that for the purpose of obtaining saleable specimens in as short a time as possible they are often in nurseries subjected to considerable heat and moisture, the result being that though they grow quickly when taken into a cooler and drier structure, they soon suffer. For this reason the present is the best time of the year to obtain plants from nurseries, as the contrast between the houses in which they have been grown and the outer air is not so great as when the weather is colder, and there is now time for them to get acclimatised before autumn. Another important matter is the question of watering, as if water is allowed to stand in the jardinieres or saucers in which the plants may be stood, they are sure, sooner or later, to fall into ill-health. Palms need to be freely watered during the growing season, and at no time must they be allowed to become dry; but, still, effective drainage is very essential, and without it they will soon die. In the case not only of Palms, but of other subjects in the dwelling-house, when they need water we take them, now that the weather is warm, to a shady

spot out of doors and soak each pot in a pail of water till the entire ball of earth is completely saturated. Then they are stood out to drain, and after that taken indoors. Palms will keep in health for a long time in comparatively small pots, a frequent cause of failure, especially on the part of the amateur, being to shift them into pots much too large, as with a large mass of soil around the roots they are sure to deteriorate. Other important items are not to subject Palms to full sunshine, while they also dislike a direct draught. On the pieces of leaves sent we notice some scale insects, which should be sponged off with a lather of soft soap and water.

TREES AND SHRUBS.

Magnolia Watsonii not flowering (*R. M.*).—The fact that the very strong shoots on your plant of Magnolia Watsonii do not flower, but the weaker ones do, shows that these taller branches are devoting all their energies to growth, and unless shortened back the plant is likely to become bare at the base. We advise you to at once cut back these strong shoots. They may be reduced to half their length, perhaps a little more or less; but this, of course, will depend upon the rest of the plant, as the object aimed at must be to ensure a symmetrical specimen. Your plant of this Magnolia must be a very fine one.

Propagating Rock Roses (*D. M. Hole*).—The Rock Roses may be propagated by means of seeds or cuttings Seeds may be sown as soon as they are ripe, or they may be kept and sown the following spring. Sow in pots or boxes of sandy soil indoors in a little heat, prick off the seedlings in boxes, pot them singly when large enough, and plant eventually in permanent situations. Cuttings may be taken in July or August and inserted in a bed of sandy soil in a cold frame or in pots in a cool house. Pot singly when rooted. The yellow Tree Lupine can be increased both by seeds and cuttings. Sow the seeds as soon as ripe, or keep them to sow the following spring. Cuttings may be rooted in July or August, and are most satisfactory when placed in a cold frame. The specimen No. 4 is Euphorbia Lathyrus (the Caper Spurge).

MISCELLANEOUS.

Names of plants.—*Miss K. E. J.*—Lonicera involucrata. The best dwarf Sweet Alyssum is A. maritimum compactum.——*E. D.*—Ceanothus veitchianus. Should be cut back after flowering and all dead wood removed in spring.——*L. M. B.*—Anthyllis Vulneraria.——*H. K. B.*—1, Spiræa discolor; 2, S. lobata; 3, Symphytum officinale var. luteo-marginatum; 4, Campanula latifolia alba; 5, C. l. versicolor; 6, Rubus odoratus; 7, Rose, cannot match; 8, Ceanothus Arnoldii; 9, Geranium Endressii; 10, G. sanguineum; 11, Galega officinalis; 12, Inula glandulosa; 13, Astrantia major; 14, Buphthalmum salicifolium; 15, Helenium Bigelovii; 16, Cornus Mas.——*A. H. M.*—The Great Thrift (Armeria Cephalotes).——*M. S. Ridley.*—The Roses were drooping when received, and we could not identify No. 1. No. 2 is, we think, Killarney.——*J. Goodfellow.*—1, Veronica elliptica; 2, V. Andersoni alba; 3, V. speciosa; 4, Veronica seedling; 5, Philadelphus Lemoinei; 6, Solanum Capsicastrum; 7, not found; 8, Actæa spicata; 9, Solanum species, send in flower; 10, Veronica angustifolia; 11, V. Traversii; 12, Skimmia japonica; 13 and 20, Asplenium bulbiferum; 14, Adiantum diaphanum; 15, too small to name; 16, cannot name from leaf only; 17, too small to name; 18, Pellæa rotundifolia; 19, not found; 21, Antirrhinum Asarina; Tropæolum tricolor.——*A. F. Torrance.*—The petals had fallen when the flowers reached us, but we think the Rose is Alberic Barbier.——*Damansland.*—The Monkshood (Aconitum Napellus).——*K. M. T.*—The plant is Campanula glomerata dahurica.——*Mrs. Shiers.*—The Maidenhair Tree (Ginkgo biloba, Salisburia adiantifolia).——*E. K. T.*—1, Captain Christy (Climbing); 2, Margaret Dickson; 3, Mrs. John Laing; 4, Gloire de Dijon; 5, Helen Keller; 6, too full blown; 7, Crown Prince; 8, Augustine Guinoisseau. The Campanula was too faded for identification.——*N. Bond.*—Rose Jaune Desprez. The other plant is a Chorizema, but it is impossible to say which from the material sent.—— *Mrs. Fletcher.*—1, Mme. I. Pereire; 2, La France de '89; 3, Princesse de Sagan.——*S. H. B.*—Coronilla Emerus.——*S. Smith.*—1, Selaginella Braunii; 2, Strobilanthes dyerianus; 3, Davallia pallida; 4, Trachelium cæruleum; 5, Juniperus bermudianus; 6, Calceolaria seedling.——*B. E. W.*—1, Euonymus europæus; 2, Cornus alba; 3, Spiræa discolor; 4, Hieracium aurantiacum; 5, Pernettya mucronata; 6, Rubus odoratus; 7, Cobæa scandens; 8, Chlorophytum, send in flower.——*E. E. Bell.*—Lonicera involucrata.—— *L. Ward.*—The Roses were too faded for identification.—— *G. Dixon.*—Forms of Campanula glomerata, the white is called alba; Anemone palmata.—— *Knowledge.*—We regret we cannot name Fuchsias.—— *J. M. Truman.*—The pale blush, rose-tinted bloom is the old variety Homere, and the pink, Hybrid Perpetual Baroness Rothschild.——*C. S., Abingdon.*—Souvenir de L. Viennot.——*G. J. Padbury.*—Stephanandra Tanakæ; Rhus Cotinus.—— *Norman Maclaren.*—Pernettya mucronata.—— *W. J. R.*—Carpenteria californica.——*A. C.*—Ononis rotundifolia.——*Jos. H. Straker.*—Rhododendron ferrugineum.——*Rhagatt.*—Astrantia major.——*J. E. M. F.*—1, Begonia Sutherlandii; 2, B. Dregei.

SOCIETIES.

THE WOLVERHAMPTON FLORAL FETE.

THIS fine exhibition is held under the auspices of the Town Council of Wolverhampton, Mr. Alderman Craddock being chairman of committee. It is held in the beautiful West Park of the town, a delightful rendezvous, where abundant accommodation is provided for the immense company which patronise the show on the three days which it remains open. The exhibition held on the 12th inst. is the twenty-second of the series, and it is a pleasure to record the fact that it proved to be probably the finest of them all. To show how important a horticultural meeting this has become, it need only be said that the prize-money provided in the horticultural section alone amounts to close on £900, and that the whole cost of the three days' show amounts to upwards of £3,300. We offer our congratulations to the secretary and committee on the success of their management, everything passing off smoothly, pleasantly and successfully. The greatest attraction in the show was the group of

Miscellaneous Plants arranged for effect, Class 1, the first prize being £40; second, £30; third, £20; fourth, £10 (£100 in one class). A novel provision was added to this class, namely, that cut flowers in glasses could be used in the decoration as well as plants in pots. This resulted in greatly enhancing the beauty of these groups, as a greater variety and abundance of flowers were used. Messrs. Cypher and Sons were fairly easy winners in this class with certainly, in the opinion of the judges, one of the most beautiful and attractive groups set up at any show. Sir George Kenrick (gardener, Mr. Macdonald) took second prize with a very beautiful group. Had the back of this group been built up and completed in the same artistic and beautiful way as the front had been, it would have been hard to beat. The third prize went to Mr. Holmes of Chesterfield, and the fourth prize to Mr. Vause of Leamington.

In the class for a group of ornamental foliage alone, which was in no way remarkable for special excellence, Messrs. Cypher were again first; second, Mr. Holmes, Chesterfield; and third, Mr. Vause, Leamington. A popular class in this show is the one provided for a group of flowering plants, only one variety of any species allowed. The space allowed is 50 square feet, and the prizes are £10, £7 and £5. Six competed; two Begonias (tuberous-rooted), two Carnations, one Erica and one Hydrangea hortensis. The Begonias were by far the best, comprising splendidly grown plants, Mr. Davis of Pershore carrying off the first prize by a few points only. Rock gardens are a recent innovation at flower shows, and very popular, interesting and beautiful they are when so artistically set up and planted as those were at Wolverhampton. The first prize of £21 was won by Messrs. J. Backhouse and Sons of York. The space was, perhaps, too limited to allow of the best examples of such gardens to be set up (25 feet by 12 feet), but that of Messrs. Backhouse was fine. A local exhibitor, Mr. J. E. Knight, Tettenhall Nurseries, Wolverhampton, took second place with a well-planned and well-conceived garden, but over-planted, some of the plants being unsuited for rock garden planting. Messrs. W. Artindale and Sons of Sheffield were placed third with a very creditable example of this popular aspect of gardening. The judges must have had a difficult task to discriminate between the second and third.

Roses.—The Wolverhampton show was started primarily as a Rose show, and the queen of flowers has ever since had a prominent position given to it. The first prize in the class for seventy-two distinct specimens is £20; second, £12; third, £7; fourth, £3. It need scarcely be said that such prizes will command the presence of the best growers in the kingdom, and so it was on this occasion, resulting in a magnificent show of blooms in most of the classes. The first prize fell to Mr. Hugh Dickson of Belfast in this class; second, The King's Acre Nursery Company, Hereford; third, Messrs. Harkness and Co., Hitchin. There were six exhibitors in the class for forty-eight blooms, distinct varieties, Messrs. Harkness being placed first; second, Mr. Hugh Dickson, Belfast; third, Messrs. Townsend of Worcester. There are always rich and abundant collections of hardy herbaceous cut flowers at this show, the first prize in the competitive class going to Messrs. W. Artindale and Sons of Sheffield. The liberal prizes offered for Sweet Peas and table decoration brought together large and beautiful exhibits.

Fruit.—In the collections of fruit, Mr. Barnes, gardener to the Duke of Westminster, proved himself invincible, taking first prize for two collections. We noticed also that Mr. Barker, gardener to the Duke of Newcastle, was a successful exhibitor in this class. For Grapes Mr. Barker was first in the class for four bunches. In a class for fruit trees in pots, The King's Acre Nursery Company, Hereford, were the only exhibitors, the first prize being awarded to them for an excellent and representative collection of well-grown fruit.

Honorary Exhibits.—Messrs. Sutton and Sons set up a grand collection of superbly grown specimens of their specialities in fruit, vegetables and flowers, and were awarded a special gold medal.

Messrs. Clibran had a beautiful group of well-grown and well-arranged plants, their pillar Roses being specially attractive. Silver medal.

To Messrs. Dicksons, Limited, of Chester a gold medal was awarded for a collection of herbaceous plants and border Lilies, beautifully arranged.

A group of splendidly grown Carnations was shown by Lady Grey of Enville Hall, Stourbridge (gardener, Mr. Green). Gold medal.

Messrs. Webb and Sons of Stourbridge had a large collection of their novelties in fruit, flowers and vegetables, all showing the highest possible culture. These were arranged in a very attractive and delightful manner. Two long tables were used, fixed at distances apart of about 5 feet or 6 feet and parallel to one another, the gangway between the tables being spanned with arches of Sweet Pea flowers, which were much admired.

Messrs. Edwin Murray of Shrewsbury were awarded a silver medal for Roses.

Messrs. Jarman and Co. were awarded a silver medal for Roses, Sweet Peas, Pelargoniums and Centaureas.

Robert Sydenham, Limited, were awarded a silver medal for a delightful exhibit of Sweet Peas, artistically arranged in silver-plated flower-stands.

Messrs. Dobbie and Co. of Edinburgh received a special gold medal for a grand exhibition of Sweet Peas, Pansies and Violas.

Messrs. Artindale and Sons of Sheffield were awarded a silver medal for a collection of Pansies, Violas, Rambler Roses and Gladioli.

THE NATIONAL SWEET PEA SOCIETY'S EXHIBITION.

THE tenth annual exhibition in connection with the above society was held in the Horticultural Hall, Vincent Square, Westminster, on the 12th and 13th inst., and proved a great success. Although the entries were not quite so numerous as usual, the quality generally was the best that has ever been seen, a fact that was most surprising considering the weather which had been experienced just previously. Considerable comment was caused by the disqualification of Sir Randolf Baker's exhibit in the Sutton Challenge Cup class, owing to one vase having one more spray in than was stipulated in the schedule. Of course, as the rules of the society now stand there was no other course open to the judges, but the fact remains that the best flowers shown in this class did not receive the premier, or, indeed, any award.

COMPETITIVE CLASSES.

Trade Excluded.—There were five entries in the Sutton Cup class, where eighteen bunches of Sweet Peas, distinct, were demanded, these to be selected from the varieties recommended by the floral committee. The challenge cup was well won (but afterwards disqualified) by Sir Randolf Baker, Bart., M.P., Ranston, Blandford (gardener, Mr. A. E. Usher), the flowers shown here all being large, clean and of superb colours. Among the most notable sorts were A. J. Cook (very fine blue), Mrs. A. Ireland, Marjorie Willis, Frank Dolby, Helen Lewis, The Marquis and Mrs. C. W. Breadmore. We have never seen the variety A. J. Cook staged in better condition than it was in this exhibit. Second honours went to Mr. J. Haycocks, Gyfela, Wrexham, who staged a good, though smaller, lot of flowers, the colours, too, being somewhat fainter. Helen Pierce, Aurora Spencer, Frank Dolby and Clara Curtis were of more than usual merit here. The Right Hon. Sir G. O. Trevelyan, Bart., Wallington Hall, Cambs (gardener, Mr. E. Keith), was third; Lady Fermor Hesketh, Euston Neston, Towcester (gardener, Mr. G. F. Hallett), fourth; and Mrs. A. Tigwell, Harrow View, Greenford, fifth. The first prize exhibit in this class was afterwards disqualified owing to one vase containing twenty-one sprays instead of twenty allowed, and the prizes were therefore awarded to the other exhibitors in the order named.

For twenty-four bunches of Sweet Peas, distinct, the silver medal and cash offered as first prize were won by Mrs. A. Tigwell with a very fine lot of clean flowers, the colours, perhaps, in one or two instances being a little weak. Elsie Herbert, Mrs. Hugh Dickson, Senator Spencer and Masterpiece were the best. Second prize went to Mrs. A. J. Norris, Chipstead (gardener, Mr. T. Harscroft), but the flowers here were badly spotted and in many cases small. These were the only two exhibits in this class.

The Henry Eckford Memorial class for twelve bunches, distinct, was well contested, no fewer than seven exhibits being staged. The Henry Eckford Memorial Challenge Cup was won in fine style by Sir Randolf Baker, Bart., with really wonderful flowers, Lavender George Herbert being perfect. Marjorie Linzee, Othello Spencer, The King, Elsie Herbert and Mrs. C. W. Breadmore were also in first-class condition. The silver medal and cash offered as second prize went to E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson), who also staged flowers of more than usual merit, his bunches of Audrey Crier, Princess Juliana, Elsie Herbert, Asta Ohn and Cole's Earl Spencer creating a considerable amount of interest. The difference between the first and second prize exhibits in this class was very small indeed. Mr. T. Jones, Bryn Pen-y-lan, Ruabon, was a good third, Dazzler, Clara Curtis and Masterpiece being his three best. Fourth was won by F. A. Wellesley, Esq., J.P., Westfield, Woking (gardener, Mr. W. Hopkins).

For twelve bunches, distinct, each bunch to represent a colour class, there were only two entries, first prize going to Mrs. Tigwell, Harrow View, Greenford, who had good bunches of Prince Olaf and Lord Nelson, the others shown

being of moderate quality only. The second prize group was shown by Lady Fermor Hesketh, Clara Curtis and Helen Pierce being the two best varieties.

In the class for six bunches, distinct, the varieties Masterpiece and Mrs. Hugh Dickson to be included, there were seven entries, Sir Randolf Baker, Bart., once more proving the leading winner. His bunches of Mrs. Hugh Dickson, Elsie Herbert and Othello Spencer were exceedingly praiseworthy. Second prize went to Mr. T. Jones, Ruabon, who had wonderful examples of Eric Harvey and Mrs. Hugh Dickson. E. P. Broad, Esq., Rosehill, Par Station, Cornwall (gardener, Mr. W. H. Prophet), was third; and E. G. Mocatta, Esq. (gardener, Mr. T. Stevenson), was fourth.

Five entries were staged for the Breadmore Challenge Plate offered for twelve varieties, distinct, these to be in general commerce. E. P. Broad, Esq., was the champion here, showing flowers of very high quality indeed. James Grieve was exceptionally rich in primrose, and other notable sorts were Mrs. A. Ireland, Paradise Red Flake, Mrs. C. W. Breadmore and Prince Olaf. Second prize went to Dr. J. E. Phillips, Malpas, Cheshire, who had a fine vase of Clara Curtis in his exhibit. Third and fourth prizes went respectively to Mr. E. Cowdy, Greenhall, Longhall, County Armagh, and G. Stevenson, Esq., Chadworth Cottage, Esher (gardener, Mr. W. Chalker).

The class for six bunches, distinct, was a well-contested one, premier honours being won by the Right Hon. Sir G. O. Trevelyan, Bart., with flowers of large size and good colour, Marjorie Linzee, Tom Bolton and John Ingman being the best three. Second prize went to Mr. F. J. Harrison, Rosedene, Ulverston, whose exhibit included a very good vase of Mrs. Hardcastle Sykes. Third and fourth prizes were won respectively by A. W. Stirling, Esq., Holme Lea, Goring (gardener, Mr. A. Moring), and Edward Otter, Esq., Stanhope Park, Greenford.

No fewer than thirteen exhibits were staged in the Humphrey class, in which the Humphrey Silver Cup and cash were offered as first prize for three bunches, distinct, the varieties to be selected from those put into commerce during or since the autumn of 1908. The cup was well won by Sir Randolf Baker, Bart., with splendid flowers of Earl Spencer, America Spencer and Lavender George Herbert. Second prize went to E. G. Mocatta, Esq., Addlestone, for superb bunches of Silas Cole, Princess Juliana and America Spencer; and third prize was won by E. P. Broad, Esq., Cornwall, who had Snowflake, Mrs. A. Ireland and Nancy Perkin.

OPEN TO ALL.

(Exhibitors in Small Growers' Section Excepted.)

The classification class for eighteen varieties, distinct, not more than one variety of any colour given in the classification, brought out quite a number of entries, the first prize being well won by Sir Randolf Baker, Bart., with a remarkably good lot of flowers. The King, Mrs. A. Ireland, Prince Olaf, Helen Pierce and Mrs. H. Sykes were the best bunches. Mr. C. W. Breadmore, Winchester, was second, his group including very fine examples of Mrs. H. Sykes and Helen Pierce. Third and fourth prizes were won in the order named by Mr. J. Box, Lindfield, Sussex, and the Right Hon. Sir G. O. Trevelyan, Bart.

For sixteen bunches of Sweet Peas, to consist of two bunches each of stated varieties, the first prize again went to Sir Randolf Baker, Bart., who had Picotee, A. J. Cook and Nora Unwin in fine condition. Second prize went to Mrs. A. Tigwell, Greenford, who was the only other exhibitor and whose flowers were rather small.

The class for twenty-four bunches, distinct, only brought forth two entries, both exhibits, however, being of very good quality. First prize was won by Mr. C. W. Breadmore, Winchester, who had Mrs. Townsend, Mrs. Breadmore, Helen Pierce, Elsie Herbert and Sybil Eckford in first-class condition. Sir Randolf Baker, Bart., had to be content with second place in this class, his flowers of Earl Spencer, Mrs. H. Sykes and a much waved pale blue flaked unnamed seedling being, however, of very good quality.

For twelve bunches, distinct, Messrs. E. W. King and Co., Coggeshall, Essex, were a good first, their exhibit containing superb flowers of Anglian Pink, Anglian Orange and Clara Curtis. F. A. Wellesley, Esq., Woking, was second, Earl Spencer being extra good in his exhibit. Third and fourth prizes went respectively to Mr. A. Miller, Newport, Isle of Wight, and Mr. G. Humphreys, Langley Nurseries, Chippenham.

In the class for one bunch of new Sweet Peas, one variety only, to be selected from varieties not put into commerce, the competition was exceptionally good, first prize being won by Mr. C. W. Breadmore with Iris, a beautiful true salmon pink waved variety on cream ground. Second prize went to Mr. T. Jones, Ruabon, who had Earl Spencer; and third to E. P. Broad, Esq., Cornwall, for a bunch of Dazzler.

SWEET PEAS WITH WAVED STANDARDS.

Trade excluded.—For twelve bunches, distinct, E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson), was the champion, his fine lot embracing Dazzler, Mrs. Charles Foster (blue), Clara Curtis, Mrs. Hugh Dickson (pink and cream), John Ingman, Black Knight, Helen Lewis, Rosie Adams, Spencer America, Etta Dyke, Sunproof Crimson and Evelyn Hemus. A very fine lot, admirably grown and well staged. E. J. Johnstone, Esq., Burrs Wood, Groombridge (gardener, Mr. A. T. Paskett), was second, his Lavender George Herbert and Etta Dyke being very fine. Sir Charles Hadden, K.C.B. (gardener, Mr. Hayles), was third.

For six bunches, distinct, H. le Blanc Smith, Esq., Standon, Wilts (gardener, Mr. Maclean), was first, staging good vases of Princess Juliana, Mrs. C. W. Breadmore and Constance Oliver. Mr. F. J. Harrison, Ulverston, was placed second with excellent vases of Mrs. Townsend and Mrs. Hardcastle Sykes; A. W. Stirling, Esq., Holme Lea, Goring, coming in a good third. There were eight competitors in this class.

For four bunches of Sweet Peas, to consist of Colleen, Queenie, Winifred Deal and Winsome, Sir Randolf Baker, Bart., M.P., was the first prize-winner.

For three bunches, distinct, E. P. Broad, Esq., Cornwall, was first. He had very fine vases of Lavender George Herbert, Paradise Ivory and George Herbert. Mr. J. Haycock was second; and Mr. A. L. Thomas, Kenley, third. There were fourteen competitors here.

For three bunches of pink Sweet Peas with waved standards, distinct, E. P. Broad, Esq., was again first with Olive Bolton, Mrs. H. Sykes and Audrey Crier. Dr. J. E. Phillips, Malpas, Cheshire, was second; and Mr. F. J. Harrison, Ulverston, third. There were six competitors in this class, none of whom apparently complied with the schedule, the flowers being judged on their merits as shown.

For two bunches of cream pink Sweet Peas, E. P. Broad, Esq., was once more to the front with Constance Oliver and Mrs. H. Bell in excellent condition. Sir Randolf Baker, Bart., M.P., was second, showing Syeira Lee and Mrs. H. Bell in fine form.

Open to All.—In Class 20, for twelve bunches of waved Sweet Peas, distinct, offered for sale during the autumn of 1908 or spring, 1909, Unwin and Spencer types admitted, the E. W. King Challenge Cup was won by E. P. Broad, Esq., who showed in admirable style Phenomenal, Mrs. A. Ireland, George Herbert, St. George, Mrs. Charles Foster, Mrs. C. W. Breadmore, Nora Unwin, Menie Christie, Elsie Herbert, Prince of Asturias and Mrs. H. Sykes. This exhibitor was the winner of this cup last year. The Rev. O. Turner, Woburn Park, Weybridge (gardener, Mr. A. Basile), was second, his Helen Lewis, Elsie Herbert and Mrs. Hugh Dickson being very good. Dr. J. E. Phillips was third. There were a dozen competitors in this important class, the exhibits being of remarkable excellence throughout.

For a display of Sweet Peas on a space 4 feet by 3 feet, Mr. Robert Bolton, Warton, Carnforth, was awarded the first prize, this consisting of the Burpee Challenge Cup and gold medal, his vases of Clara Curtis, Earl Spencer and a blue, bronze-shaded seedling being very fine. Elsie Herbert (white, pink bordered) was also excellent. Mr. James Box, Lindfield, Sussex, was second, his Apple Blossom and Paradise Ivory being fine examples.

For twelve bunches of Sweet Peas, to consist of given varieties, Sir Randolf Baker, Bart., M.P., Blandford (gardener, Mr. A. E. Usher), was first. He showed Senator Spencer, Tennant Spencer, Asta Ohn, Queen Victoria, Etta Dyke, Flora Norton and F. Morse, all in splendid form. Mr. T. Jones, Ruabon, was second. Nora Spencer, Miriam Beaver, White Spencer and Flora Norton were all fine. Mr. Robert Wright, Formby, was third.

For six bunches, distinct, Sir Randolf Baker, Bart., M.P., was again first with Othello, Countess Spencer, Clara Curtis, King Edward, Etta Dyke and George Herbert. Mr. T. Jones, Ruabon, was second; and third prize went to Mr. F. J. Harrison, Ulverston.

For four bunches of the American Sweet Peas Miriam Beaver, Senator Spencer, Marie Corelli and W. T. Hutchins, Sir Randolf Baker, Bart., M.P., was first with very fine vases of flowers. Mr. T. Jones, Ruabon, and Mr. Robert Wright, Formby, followed in the order named.

In the maiden growers' class, for six bunches of Sweet Peas, distinct, Mr. George Reid, Downfield, Dundee, was first. He had Arthur Unwin, Masterpiece, Douglas Unwin and Mrs. Hugh Dickson in very fine condition. Dr. J. E. Phillips, Malpas, Cheshire, was second; and Mr. G. Baldwin, Greenford Green, third.

Special Division for Small Growers.—In the Horace Wright Challenge Class for twelve bunches of Sweet Peas, distinct, Mr. F. Green, Morris Road, Southampton, was first. He had capital vases of Elsie Herbert, Clara Curtis, Helen Lewis, Mrs. Hardcastle Sykes, Etta Dyke, Mrs. Collier and others. Mrs. Howard Young, Filton Avenue, Bristol, was second with a pretty display; and Mr. L. C. B. Hockin, Sutton Green, whose flowers were excellently arranged, was third.

For six bunches of Sweet Peas, to represent six different colour classes, the Walter Voss Challenge Cup was won by Mr. E. D. Marshall, Early Rise, Reading, who had Clara Curtis, Mrs. Hardcastle Sykes, Etta Dyke, Constance Oliver, John Ingman and Elsie Herbert. Mr. W. J. James, Bedford, and Mr. J. A. Bull, Chelmsford, followed in the order named.

For six bunches of Sweet Peas with waved standards, Mr. C. R. Jaggs, Hertford Heath, Herts, was first with King Edward, Douglas Unwin, Mrs. Breadmore, Constance Oliver, Arthur Unwin and Marjorie Willis. Mr. W. Mousley, Ashford, Middlesex, was second; and Mr. F. Stratford, Hemel Hempstead, third.

For three bunches of Sweet Peas, distinct, first prize went to Mr. F. Green, Southampton, for good bunches of Flora Norton, George Stark and Dorothy Eckford. Mr. E. H. Guy and Mr. W. W. Powell, Gamlingay, Sandy, were second and third respectively.

For three bunches of Sweet Peas, distinct, waved varieties only, Mr. C. R. Jaggs, Hertford Heath, Herts, was first, showing Marjorie Willis, Mrs. Breadmore and Arthur Unwin in capital form. Mr. W. G. Cramp, 175, Fallsbrook Road, Streatham, was second; and Mr. F. Green, Southampton, third. The last-named exhibitor had Miriam Beaver in particularly fine form.

For two bunches of cream pink Sweet Peas, Mr. W. Mousley, Ashford, Middlesex, was first with Mrs. Hugh Dickson and Constance Oliver; Mr. L. H. Hatting, The Nest, Hornchurch, coming second.

Open to Lady Members Only.—For a decoration of Sweet Peas for the dinner-table, Mrs. W. Maslin, Ongar Hill Cottages, Addlestone, was first with pink and cream-coloured Peas in company with the finest Grasses and trails of Selaginella; a light, elegant and artistic arrangement. Mrs. A. Robinson, Park Hill, Carshalton, was second, her elegant arrangement having Peas of diverse colours, with sprays of Ivy, Lonicera japonica aureo reticulata and Asparagus. Third prize went to Mrs. de Buriatte, Waysbury, whose low-placed arrangement was very beautifully done. There were eleven tables displayed in this ever-fascinating competition, the whole being delightfully and artistically arranged.

For an epergne or any suitable stand of Sweet Peas, first prize went to Mrs. W. Maslin, whose epergne contained pink and creamy coloured Peas, with light sprays of Gypsophila, Lonicera and other things; a really charming arrangement. Mrs. Vokes, Woking, and Miss M. Jones, Soulton Road, Wem, were second and third respectively.

For a vase of Sweet Peas, mixed colours, Mrs. Vokes was first, having a most handsome arrangement in pink, cream and blue. Mrs. Maslin was second with a very fine arrangement; and Miss M. Jones, Wem, third.

For two button-holes, two stems only in each, and one spray of Sweet Peas, Mrs. W. Fulcher, Chelmsford, was first; and Mrs. H. P. Cottam, King's Langley, second.

NEW VARIETIES.

The following varieties, which were judged by the floral committee at the trials, and bunches of which were shown at the exhibition, received recognition:

Stirling Stent.—This may be regarded as the new Sweet Pea of the year, as it received a first-class certificate and also the society's silver medal offered for the best novelty. It is described as a waved salmon orange. From Mr. J. Agate, Havant, Hants.

Arthur Green.—A deep purple waved flower, which, as shown, did not appear to possess any special merit. From Messrs. Dobbie and Co., Rothesay. Award of merit.

Cherry Ripe.—A cerise scarlet waved flower of good size and substance. From Messrs. Gilbert and Sons, Dyke, Bourne, Lincs. Award of merit.

Mrs. Hugh Dickson.—This may best be described as a glorified Mrs. Henry Bell, the cream and pink colours being very pronounced. A good variety. From Messrs. Dobbie and Co. Award of merit.

Masterpiece.—A lavender-coloured variety, the flower of which is waved and the standard suffused with rose. From Messrs. Dobbie and Co. Award of merit.

NON-COMPETITIVE GROUPS.

Messrs. Jarman and Co., Chard, had a pretty display of these flowers, making a great feature of their new mauve and white waved Pea Mrs. Townsend. It is a pretty and dainty variety of much excellence. James Grieve (cream) was also well shown. Silver medal.

Messrs. Jones and Sons, Coton Hill Nurseries, Shrewsbury, had an effective display, arranging overhead arches with glass bowls filled with the flowers. Clara Curtis (yellow), Earl Spencer and Mrs. Breadmore were notable sorts. Silver-gilt medal.

Messrs. Kelway and Son, Langport, staged handsome vases of flowers, of which Mrs. H. Bell, Paradise Ivory, Miriam Beaver (a lovely rose and cream) Harold (a good yellow shade) and Mrs. Hugh Dickson were among the best. Silver medal.

Messrs. E. W. King and Co., Coggeshall, Essex, had lovely vases and stands of Clara Curtis, yellow; Queen Mary, cream and pink; Mrs. William King; Anglian Orange, a new variety of merit; Nancy Perkin, salmon orange; and Anglian Pink, a very fine flower, these being the best in a large and showy lot. Gold medal.

Messrs. Sutton and Sons, Reading, had a large exhibit of Sweet Peas arranged in delightful fashion and with consummate skill. From some fifty varieties of high excellence we select Mrs. Hardcastle Sykes, blush pink; Helen Lewis, salmon; Evelyn Hemus, cream and pink; Asta Ohn, rosy lavender; Captain of the Blues (Spencer); Othello, dark bronze; and Sutton's Queen, apricot on cream, a lovely thing. In a colour scheme arrangement salmon pink and light blue shades were very charming. Gold medal.

Mr. C. W. Breadmore, Winchester, had some very fine vases of Mrs. Henry Bell; Nancy Perkin, orange; Elsie Herbert, white and pink; Constance Oliver, cream and rose; and Mrs. C. W. Breadmore, cream and pink. Gold medal.

H. J. Jones, Limited, Lewisham, had a particularly fine stand of Beatrice Stevens, a very fine white-flowered variety.

Miss Hemus, Upton-on-Severn, staged many good vases of flowers, Evelyn Hemus, Paradise Brilliant, Zarina (a shade of Godetia pink and salmon), Primrose Paradise and Paradise Apple Blossom. Guy Hemus (pale blue) was also very fine. Silver medal.

Mr. Robert Bolton, Carnforth, displayed handsome vases of Prince of Orange, Mrs. Breadmore, Earl Spencer (very fine), Tom Bolton (maroon bronze) and Mrs. Charles Foster (pink and mauve with bronze pink bordering). Gold medal.

Messrs. Dobbie and Co., Edinburgh, showed in excellent condition handsome vases of Mrs. Hugh Dickson (pink), Masterpiece (a very fine blue), Mrs. C. W. Breadmore (cream, pink bordered), together with Yankee, Clara Curtis and St. George. Gold medal.

Messrs. G. Stark and Son, Great Ryburgh, Norfolk, exhibited an interesting gathering of flowers of many varieties, Messrs. William Atlee Burpee and Co., Philadelphia, U.S.A., staging a small lot. Silver medal.

Mr. James Box, Lindfield, Sussex, had a very showy and artistically arranged exhibit, Mrs. Henry Bell, Elsie Herbert and Evelyn Hemus being among the more prominent in the group. Silver-gilt medal.

Mr. William Deal, Kelvedon, Essex, had many vases of flowers, Deal's Colleen, in rose and pinky white, being very charming. Silver medal.

Messrs. S. Bide and Sons, Limited, Farnham, Surrey, displayed a showy lot of flowers in many excellent varieties. Silver medal.

Mr. W. O. Cautley, Bury St. Edmunds, had excellent vases of Evelyn Hemus, Betty Cautley and Masterpiece among many good sorts. Silver medal.

Messrs. G. and A. Clark, Limited, Dover, staged an extensive lot of flowers, the centre group of James Grieve (yellow) being very fine. Silver medal.

Mr. J. Stevenson, Wimborne, displayed in capital style Orange Queen, Rosie Adams (bronze and purple), Henry Eckford, Mrs. Hardcastle Sykes, Colleen and others. Silver medal.

Mr. W. E. Alsen, Denmead, Hants, had a small group particularly well displayed, Stirling Stent (orange scarlet) being exceptionally good and well coloured. Silver medal.

Messrs. J. K. King and Sons, Coggeshall, Essex, had a nice exhibit of fresh-looking flowers, Asta Ohn (Spencer), Paradise Ivory, Mrs. Henry Bell, Miss Bieberstedt (blue) and Harold (yellow) being very fine. Silver medal.

Robert Sydenham, Limited, Birmingham, had an artistically arranged group, setting the flowers in silvered ornaments, arches and the like, the result being light and elegant. Queen Victoria (Spencer), Prince of Orange, Evelyn Hemus and Miriam Beaver (cream and pink) were among the most beautiful varieties. Silver medal.

Messrs. Walter Voss and Co., Limited, Millwall, London, had an extensive arrangement, showing many good standard varieties in capital condition.

Mr. W. J. Unwin, Histon, Cambs, displayed a capital lot of flowers in handsome bunches, Clara Curtis, Freda Unwin (blue), Helen Lewis, Mrs. C. W. Breadmore, Frank Dolby (deep blue), Nettie Jenkins (pale blue, very pleasing) and Mrs. W. J. Unwin all being well shown. Silver-gilt medal.

Rural table decorations were seen from Mr. J. Williams, Oxford Road, Ealing, and Robert Sydenham, Limited, Birmingham.

The balcony at the end of the hall was most tastefully decorated by Messrs. C. H. Curtis and D. Tigwell, Palms, Sweet Peas and trails of Smilax being very effectively arranged. This added greatly to the beauty of the show. Silver-gilt medal.

The numerous Palms used in the hall were supplied by Messrs. William Cutbush and Sons, Highgate.

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

THE exhibition and garden-party held under the auspices of the above association in the Royal Botanic Gardens, Regent's Park, on Saturday, the 9th inst., was favoured with rather better weather than had been experienced for some time past, and the members enjoyed the function all the more in consequence. The exhibition, although not a very large one, was distinctly interesting, embracing a great variety of subjects, in which several members of the association did their best to display the results of their cultural skill and dispose the subjects artistically in the respective classes. When it is taken into consideration that the majority of the members follow their calling in the City of London and its environs during the day, and have limited time at their disposal in which to arrange their exhibits, much credit is due to those who displayed their products so well as to merit the favourable consideration of the judges.

Mr. G. W. Cook of North Finchley, N., the esteemed hon. treasurer of the National Rose Society, succeeded in winning the president's gold medal for the best display of Roses set up on a given space on this occasion. This exhibit was excellent, and embraced many types and species of the Rose, several of which were well represented. In another class for table decoration for Sweet Peas, the wife of the hon. secretary, Mrs. Poulton of New Barnet, won leading honours with blossoms very lightly and artistically disposed in silver stands. Mrs. W. D. Barnes, Clapton, gained second place. These were just a few of the special classes which call for notice.

The trade set up miscellaneous collections that were of great interest to the members. Mr. Amos Perry, Winchmore Hill, N., showed hardy flowers attractively; Hobbies, Limited, had a large group of decorative Roses; Mr. Howard H. Crane, Highgate, had a large and comprehensive display of Violas and Violettas; Mr. W. J. Unwin, Histon, Cambs, a beautiful collection of Sweet Peas; Messrs. Brown, Roses, embracing almost every type, which were displayed in a large table group; Mr. J. B. Riding, Chingford, exhibition and other Violas; besides a number of horticultural sundries, each of which contributed beauty to the show.

During the afternoon Mr. R. F. Felton, the well-known florist of Hanover Square, gave practical demonstrations of the ways of displaying flowers artistically in table decoration and bouquets, and was listened to by a large company for a considerable time.

NORFOLK AND NORWICH ROSE SHOW.

THIS fixture was held on Thursday, July 7, in the beautiful grounds of Carrow Abbey and Carrow House, Norwich, by kind permission of the Right Hon. James Stuart and the Misses Colman. Unfortunately, the weather was about as bad as it could be. As a result also of many days of heavy rain and hail, some growers could not send their blooms.

Mr. H. Morse, Eaton, Norwich, was the only trade grower to make a display. He had some very fair blooms of the newer kinds, including a large quantity of The Lyon, and these came in for much admiration. The medal for the best bloom was secured by Mr. T. Notley, gardener to E. G. Buxton, Esq., Catton, for a superb Frau Karl Druschki.

The Rev. J. A. L. Fellowes won the challenge cup for the best thirty-six blooms, distinct, and also another challenge cup for twenty-four blooms grown by an amateur. Mr. R. Balls, gardener to Miss Penrice, Wetton, gained first for twelve blooms, one variety, with that good old Rose La France. Garden or cluster Roses were poorly represented.

Sweet Peas were a great feature, and these seemed to have come through the weather much better than the Roses. A keen fight was witnessed for the challenge cup presented by Messrs. Daniels Brothers, Limited, Norwich, for the best twenty-four bunches, distinct. Mr. T. Notley, last year's winner, again secured it. His blooms were massive, with extra stout, long stems, and the arrangement was carried out to the best advantage.

Mr. Lewis Smith, gardener to Robert Fellowes, Esq., Shotesham Park, Norfolk, made a beautiful display of forty-eight bunches of distinct herbaceous flowers. He had some very choice subjects in the group, and they were arranged and set up as well as one could wish. This was considered the best exhibit in the show, and as such it received the silver-gilt medal of the Royal Horticultural Society. Mr. Smith also secured first position with exotic flowers, his Orchids, Gloriosa and other subjects being greatly admired. Mr. Quin, gardener to Lord Stafford, Cossey Hall, was a large exhibitor and prize-winner in the Sweet Pea classes, and he had also in the fruit section the best single bunch of black Grapes. Mr. W. Chettleburgh, gardener to Colonel Rous, Worstead, Norfolk, had some fine herbaceous flowers, and especially worthy of comment were his blooms of Tigridia colchiflora and Chrysanthemum maximum Queen Alexandra. He was also the recipient of many prizes in the fruit and vegetable sections, special mention being due of his Peaches and Nectarines.

Mr. W. Hilsdon, gardener to Sir Frederick Adair, Bart., Flixton Hall, Suffolk, won first place for thirty-six bunches of hardy flowers, the colours of his early Gladioli being very intense. Mr. Hilsdon had the best collection of fruit, Grapes, Figs and Peaches in the group being very choice and well finished. Mr. William Allan, Gunton Park Gardens, was in his best form in the Carnation sections, his blooms of St. Cecilia being superb examples. He also exhibited several dishes of the renowned Gunton strains of Strawberries, and these were in every class winners of prizes.

Vegetables were well represented. The best collection came from Captain Jickling, Catfield Hall. Tomatoes and salads were well shown by Mr. William Laws, gardener to G. E. White, Esq., Eaton, Norwich. The best Peas were staged by Mr. Welby, gardener to F. A. Bainbridge, Esq., Hethersett. Lettuces were abundant, and had evidently profited by the wet weather. Onions, Cauliflowers, Turnips and Beans were all well shown.

The trade growers made some interesting displays. Messrs. Daniels Brothers, Limited, Norwich, made a fine feature of Sweet Peas. They also had a good array of Carnations and Roses and a varied collection of greenhouse subjects in pots.

Messrs. G. Stark and Son, Ryburgh, maintained their reputation with some very good blooms of the newest varieties of Sweet Peas. Messrs. William Cutbush and Son, Highgate, N., put up a good display of herbaceous flowers and aquatic plants. Mr. G. W. Miller, Wisbech, made a pretty show of Orchids in pots, many choice subjects being in evidence. Mr. Robert Holmes, Tuckswood Farm, Norwich, demonstrated to advantage the utility of the new Phenomenal Berry. He exhibited sprays as cut from the plant and covered with ripe fruit. These fruits are twice the size of a well-grown Loganberry.

BATH ROSE SHOW.

THE annual summer show was held in the Sydney Gardens, Bath, on Wednesday and Thursday, July 6 and 7. The exhibits, on the whole, were of high merit, but several prominent growers were absent from the Rose section. Mr. Conway Jones, who always brings such beautiful blooms, was unable to come, as the recent rains had completely spoilt his flowers. Mr. Hill Gray was also away. The King's Acre Nurseries, Hereford, and Messrs. D. Prior and Son, Cheltenham, did not stage in the nurserymen's classes.

In the nurserymen and open classes, Messrs. A. Dickson, Newtownards, Ireland, took five firsts and the silver medal offered by the National Rose Society for the best Hybrid Perpetual among the professional classes, which was taken with a fine specimen of A. K. Williams. In their other exhibits one noticed the splendid colour, form and shape of the Roses. Mme. Jules Gravereaux, Mme. Paul Olivier, Victor Hugo, Lady Ashtown, Xavier Olibo and the Lyon Rose were superb. The Rev. T. G. W. Henslow, Stanton St. Quintin, and the Rev. R. Powley, Upton, Scudamore, headed nearly all the amateur classes. The former gained six firsts and the latter four and a second with blooms that fell little short in point of form to those exhibited in the growers' classes. The Rev. T. Henslow also secured the silver medal for the best Hybrid Perpetual or Hybrid Tea in the amateur classes with Dean Hole. Mrs. Edward Mawley won the silver medal for the best Tea or Noisette in the nurserymen's and amateurs' classes. The successful exhibitors were Mr. John Mattock in the former, and the Rev. R. Powley in the latter.

The decorative arrangement of Roses, in which Mr. Roland Adams, Bath, took first, was very interesting. The stands consisted of Frau Karl Druschki, Marquise de Sinety, Celia and Betty, long graceful sprays of Brunoni showing up effectively behind the stands. The second and third prizes went to Messrs. A. A. Walters and Sons and Messrs. Cooling and Sons, Bath.

Messrs. Blackmore and Langdon displayed a fine collection of Begonias, the doubles, singles, crested and frilled being seen at their best. They were awarded the first prize. The classes for cut blooms and plants were finely represented, and Mr. A. C. Palmer and Mr. John Walters carried all with one exception, namely, one of the first prizes.

The Strawberries were seen in much better condition than was anticipated. In the class for six dishes Mr. John Ricketts was first. Thomas Laxton and Eleanor were the best dishes, and the colour of these was very good. For three dishes Mr. Thomas Evry beat the previous winner, and in his exhibit Laxton's Fillbasket was of fine colour and good shape. Royal Sovereign won Mr. J. Ricketts the first in a class for one dish. He also won the highest honours for the heaviest berries.

A large group of plants was put up by Major H. Doherty, Bath, who for the fourth time in succession has secured first prize. Among the exhibits were some very fine Orchids, Lælia purpurata, Brassia verrucosa, Oncidiums and others. These, combined with some highly coloured Crotons, Carnations, Francoas and Liliums, made up a very choice group. It was designed by Mr. W. Sims, head-gardener. The prize for a table of plants 12 feet by 3 feet also went to Major Doherty. Caladiums, Fuchsia triphylla, Amarantus, Schizanthus and Nemesias were principally used.

Messrs. Rich and Co., Bath, were first for a collection of herbaceous flowers, and these were well displayed. The front was arched, and various Pansies and Delphiniums, Iris and Spiræa were conspicuous.

The table decorations were very pretty and effective. The first prize for a dinner table (open) was won by Sir Howell Davies, M.P., Bristol (gardener, Mr. Curtis), who utilised to fine advantage Cattleyas and Lælio-Cattleyas, Cosmos and Bridal Wreath, with trails of beautiful leaves. Mr. Edwin Viner, Frome, came second with a well-worked-out table, on which he used principally and with fine effect Cattleyas Mossiæ, Harrisonii and superba, Odontoglossums and Oncidiums, brightened up by yellow flowers. Mr. E. Fisher, Batheaston, was third. His was a charming table of Roses, the exquisite blending of the colours being very telling. There was a large entry for the Sweet Pea table. With a superb table blending to apricot shades Mr. E. Viner was first, and Mrs. M. L. Pierce, Bristol, second. A lightly arranged epergne, in which Buttercups, Poppies, Daisies, Grasses and the foliage of Herb Robert were principally used, won for Mrs. T. H. Woodland, Frome, the first prize in the class for an epergne of wild flowers.

The Sweet Pea was shown better than at previous exhibitions, and Mr. George Humphries, Chippenham, secured the first prize in the classes for twelve and six bunches. His flowers were nearly all fours, and were very fresh and clean. For Messrs. Webb's prize for six bunches of Sweet Peas, Mr. E. Viner beat Lord Devon and Captain Walter Long with a superb display. Asta Ohn and Helen Lewis were particularly good.

The great feature of the show consisted of the trade exhibits. Messrs. Sutton and Sons, Reading, were awarded a gold medal for flowers, fruit and vegetables. The exhibit ran the length of the table decoration tent. Lilium giganteum, Sweet Williams (Pink Beauty and Sutton's Scarlet), Lupines (pink and yellow), Gaillardias, Delphiniums, Chrysanthemum maximum, Sutton's Queen and other of the choicest varieties of Sweet Peas were effectively arranged. There were about forty varieties of Melons, Sutton's Paris Favourite and Cantaloupe being two of the best. The length of the Peas was in most cases 6 inches and over, and Sutton's Centenary was very fine. Sutton's Intermediate Carrot was 18 inches in length and 3 inches across. Some twenty varieties of Tomatoes were included, and Abundance was the best dish. Celery, Mushrooms and Artichokes were also good.

A gold medal also went to Messrs. Young and Co. of Cheltenham for their exhibit of Perpetual-flowering Carnations. May Day, White Perfection, Rose Enchantress, Mrs. H. Burnett, Cecilia, Yellow Queen, Carola, Britannia and Cheltonia (one of their own) were among those shown.

Mr. F. Eames, Frome, was awarded a silver-gilt medal for a show of herbaceous flowers, Geraniums and alpine plants. Silver medals went to Messrs. A. A. Walters and Sons, Bath, for herbaceous flowers; Mr. J. Milburn, Bath, for alpines; Mr. W. H. Coles, Bath, for Geraniums and Gloxinias; and Messrs. Blackmore and Langdon for Delphiniums.

HANLEY HORTICULTURAL EXHIBITION.

AS usual, this exhibition was this year of a very high standard, pot plants, Roses and Sweet Peas being shown in abundance, the quality generally leaving little to be desired. Thanks to the energetic secretary, Mr. W. Poulson, and the committee the arrangements were excellent in every way.

Roses.—For seventy-two varieties, distinct, Messrs. R. Harkness and Co., Hitchin, were the champions, staging a wonderful lot of flowers, conspicuous among which were Mrs. T. Roosevelt and Lyon. Second honours fell to The King's Acre Nurseries, Limited, Hereford. Mr. W. H. Frettingham, Beeston, was third; and Messrs. Perkins and Sons, Coventry, fourth.

In the classes for forty-eight blooms, distinct, and thirty-six blooms, distinct, Messrs. Harkness and Co. were first with flowers of considerable merit, followed in each instance by The King's Acre Nurseries, Limited. Messrs. Perkins and Sons were placed first for twenty-four Hybrid Teas, distinct, their flowers here being a good and extra well-coloured lot. Messrs. Harkness and Co. were first for twelve blooms of any white variety; Mr. Frettingham first for a similar number of any pink Rose; and Mr. W. T. Mattock, Headington, for twenty-four Teas, a superb bloom of White Maman Cochet being noticed in his stand.

Plants.—This is always a good and interesting section at Hanley, and this year the classes were, as usual, well filled. The principal class was very closely contested,

five competitors trying conclusions. So close was the competition that an umpire had to be called in by the judges before a decision could be made, first honours being eventually awarded to Messrs. J. Cypher and Sons of Cheltenham for a beautifully arranged collection of well-grown plants. Mr. W. Holmes of Chesterfield was, as may be imagined, a very close second, his group showing clever design and well-grown material. Mr. W. Vause, Leamington, and Messrs. R. Simpson and Sons, York, followed in the order named.

In the amateurs' section for a group of plants, first honours went to J. Tams, Esq., Stone, Staffs, who had a very brilliant display, Clerodendrons and Gloxinias being exceptionally good. Mrs. Swan, Halston Hall, Oswestry, was second, the plants here being of good quality, but the arrangement rather heavy. For a group of Orchids 100 feet square, Messrs. J. Cypher and Sons were placed first, their group being worthy of the highest praise. Cypripediums and Odontoglossums in particular called for special mention. Messrs. Cypher were also first for six specimen stove plants in bloom, for six foliage and for six flowering plants. For a group of Carnations, the Right Hon. the Earl of Shrewsbury was the only exhibitor, this exhibit, however, being considered by the judges worthy of first prize.

Sweet Peas and Hardy Flowers.—These were exceedingly good, the colours in most instances being very bright. The principal winners in the Sweet Pea section were Mr. William Chapman, New Oscott, Erdington, Birmingham; Mr. Robert Madeley, Market Drayton; and Mr. J. Bowler, Woodseanes. In the large class for a collection of hardy flowers, Messrs. R. Harkness and Co., Hitchin, were the champions. Messrs. G. Gibson and Co., Bedale, and Messrs. Artindale and Son, Sheffield, followed in the order named.

Fruit.—The principal class here was for a table of fourteen dishes of fruit ornamented with flowers and foliage. Mr. J. H. Goodacre, Elvaston Castle Gardens, was the champion here with a very fine display, particularly praiseworthy being his Nectarines, Peaches, Figs and Grapes. Mr. W. Parker, Orford House Gardens, Market Rasen, was second; Mr. William Nicholl, Carlton Towers Gardens, Yorkshire, third; and Messrs. Lewis and Sproson, Stoke-on-Trent, fourth. Mr. Goodacre was also first for twelve dishes of fruit, Mr. Parker and Mr. Nicholl following in the order named.

NON-COMPETITIVE EXHIBITS.

Messrs. E. Webb and Sons, Wordsley, Stourbridge, had a wonderful arrangement of flowers and vegetables. On a temple-like structure Sweet Peas were very freely displayed, at the base of these being finely netted Melons, vegetables of the best quality, Gloxinias in many superb colour shades, Lilies and other flowers, the whole exhibit being most praiseworthy. In addition to a gold medal this exhibit was awarded the silver cup offered for the best non-competitive group in the show. This is the third year in succession that Messrs. Webb have won this cup, which now becomes their absolute property. Mr. Henry Eckford, the well-known Sweet Pea specialist of Wem, had a very fine display of Sweet Peas; Mr. H. N. Ellison, West Bromwich, Ferns; Messrs. Clibrans, Altrincham, Roses and ornamental shrubs; Mr. W. L. Pattison, Shrewsbury, Violas; and Messrs. Dicksons, Chester, hardy herbaceous flowers. The floral decoration and many smaller competitive classes were well filled; but owing to the demand on our space caused by the reports of so many other shows, we regret we cannot give details of these.

NATIONAL ROSE SOCIETY'S PROVINCIAL EXHIBITION.

THIS exhibition was held on the 13th inst. in the Victoria Park, Salisbury, in conjunction with the Wilts Horticultural Society. Although the entries were not quite so numerous as usual, and the quality, perhaps, a little below the average, the show was an interesting and beautiful one. In one respect it was unique for a provincial show, the number of new varieties honoured creating a record.

NURSERYMEN'S GENERAL SECTION.

There were six entries in the class for thirty-six blooms, distinct, first prize being well won by Mr. Hugh Dickson, Belfast, who had large flowers of good quality. Joseph Hill, Pharisaer, Konigin Carola, Dr. O'Donel Browne, Captain Hayward and Mme. Segond-Weber were of exceptional merit. The second prize collection was staged by Messrs. Alex. Dickson and Sons, Newtownards, whose flowers were rather smaller but well coloured. Among them Countess of Rosebery, H. V. Machin, Mme. Edmée Metz, Duchess of Portland and Bessie Brown called for special mention. Third prize went to Messrs. D. Prior and Son, Colchester.

Four exhibits were staged in the large class for seventy-two blooms, distinct, first honours going to Messrs. D. Prior and Sons, Colchester. The blooms in this exhibit were a very even, good-sized and highly coloured lot, among them being extra good flowers of Mildred Grant, Joseph Hill, Her Majesty, Lyon, Beauty of Waltham and Mrs. T. Roosevelt. Second prize was well won by Messrs. Frank Cant and Co., Colchester, the flowers here, however, being rather smaller. We noticed fine examples of Her Majesty, Suzanne Marie Rodocanachi and Laurent Carle. Third prize was won by Mr. Hugh Dickson, Belfast, who had large, well-coloured, but rather open flowers.

Four exhibits were also staged in the class for twenty-four trebles, the premier prize going to Mr. Hugh Dickson, Belfast, for a very fine lot of large flowers. Lyon, Countess of Shaftesbury, Hugh Dickson and Leslie Holland were sorts that called for special mention. Messrs. Frank Cant and Co. were a good second, Marie Baumann and Mildred Grant being well shown in their stand. Messrs. D. Prior and Son were third.

For thirty-six blooms, distinct, the first prize was won by Mr. G. Prince, Longworth, who had a bright lot of flowers. Mrs. David McKee, Mrs. E. Mawley, Lyon, Gustave Piganeau and Mme. Jules Gravereaux were flowers that specially appealed to us. Messrs. G. and W. H. Burch, Peterborough, were a good second, Ben Cant, Hugh Dickson, Mildred Grant and Ulrich Brunner calling for special mention. Third prize fell to Messrs. J. Burrell and Co., Cambridge. Eight exhibits were staged in this class.

For sixteen trebles, distinct, there were four entries, Messrs. W. and J. Burch staging the winning lot. Mrs. T. Roosevelt, Ulrich Brunner, Lyon, William Shean and Mildred Grant were the best in an even lot. Mr. G. Prince, Longworth, was a close second, third prize going to Messrs. G. Cooling and Sons, Bath.

Tea and Noisette Section.—For eighteen blooms, distinct, three exhibits were staged, Mr. G. Prince being the champion with a very praiseworthy lot. Medea, Mme. Constant Soupert, Mrs. E. Mawley, Maman Cochet and Comtesse de Nadaillac were flowers worthy of special mention. Mr. H. Drew, Faringdon, Berks, was second, the flowers here being much smaller but of good quality. Mme. Jules Gravereaux was the best on the stand. Third prize was won by Messrs. Frank Cant and Co., Colchester.

For twelve blooms, distinct, Mr. J. Mattock, Headington, Oxford, was first out of three exhibitors, his dozen comprising good blooms of Mme. J. Gravereaux and Mrs. E. Mawley. Messrs. J. Burrell and Co., Cambridge, were placed second, White Maman Cochet being good in their stand. Third prize went to Mr. W. Leggett, West Bergholt, Colchester.

Open to All Nurserymen and Amateurs.—For twelve blooms of new Roses, distinct, there were six exhibits, first prize being won by Messrs. Alex. Dickson and Sons, Limitcd, Newtownards, who had excellent examples of Walter Speed, Lady Helen Vincent and Mrs. Foley Hobbs in their stand. Second prize went to Mr. Hugh Dickson, Belfast, whose most notable flowers were Leslie Holland, Mrs. Stewart Clark and Mme. P. Euler. Third prize was won by Messrs. Frank Cant and Co., G. C. Waud being in fine form in their exhibit.

Seven exhibits were staged in the class for twelve blooms of any white or yellow Rose, first prize being won by Mr. G. Prince with a wonderful dozen of Lyon, the colour here being superb. Messrs. Frank Cant and Co., Colchester, were second with a good box of Frau Karl Druschki, third honours going to Mr. W. Leggett, Colchester, for Bessie Brown, which ought not to be classed as a white Rose.

In a similar class for any light pink or rose-coloured variety, seven exhibits were staged, first prize going to Mr. H. Drew for a well-coloured and clean dozen of Mrs. E. Mawley. Messrs. Frank Cant and Co. were second with rather small but good-shaped blooms of Mrs. T. Roosevelt, third honours going to Mr. G. Prince for Mrs. E. Mawley.

For a dozen of any light or dark crimson Rose, seven boxes were staged, the premier prize going to Mr. Hugh Dickson, Belfast, for a fine lot of the new Leslie Holland. Mr. H. Drew was second with very full flowers of Alfred Colomb, third prize going to Messrs. Frank Cant and Co. for Hugh Dickson.

Exhibition Roses in Vases.—Two exhibits only were staged in the class for twelve distinct varieties, Messrs. D. Prior and Son winning first prize with large, well-coloured flowers, Dean Hole and Mrs. T. Roosevelt being the two best. Mr. G. Prince, Longworth, was awarded second prize.

For nine blooms of Harry Kirk, to be shown in a single vase, there were four entries, the challenge cup going to Messrs. F. Cant and Co. for large but rather pale-coloured flowers. Mr. H. Drew, Longworth, was second, his blooms being much deeper in colour. Mr. G. Prince was third.

Tea and Noisette Section.—For twelve trebles, distinct, there were two entries, the flowers from Mr. G. Prince winning the premier award. Mrs. E. Mawley and White Maman Cochet were in splendid condition in this exhibit. The other exhibitor was Mr. H. Drew, whose flowers, though much smaller, were awarded the second prize.

Section for Decorative Roses.—For eighteen distinct varieties, to be arranged in a given space, four competitors tried conclusions, Mr. J. Mattock, Headington, winning first prize with excellent flowers, Irish Glory, Lady Waterlow and Lady Curzon being very beautiful indeed. Messrs. G. Cooling and Sons, Bath, were second, and Mr. G. Prince third.

Messrs. W. Spooner and Son, Woking, were the only exhibitors in a similar class for twelve varieties, securing first prize for excellent blooms.

AMATEURS.

General Section.—The Jubilee Trophy and gold medal offered for the best twenty-four blooms, distinct, were won by F. Dennison, Esq., Leamington, his flowers being a very fine lot indeed. The best Hybrid Tea in the amateurs' section, a fine flower of C. J. Grahame, was in this stand, other good flowers being Mrs. E. Mawley and Mrs. J. Laing. Second prize went to E. B. Lindsell, Esq., Hitchin, the best Rose other than Hybrid Tea, Tea or Noisette in the amateurs' section being here. It was a very full flower of A. K. Williams. Third prize was won by R. Foley Hobbs, Esq., Worcester. Seven exhibits were staged in this class.

Four exhibitors tried conclusions in the class for thirty-six blooms, distinct, F. Dennison, Esq., being first with large and well-coloured flowers. E. B. Lindsell, Esq., was a good second, and Mr. W. Boyes, Middleton-on-the-Wold, was third. An extra prize was awarded to H. V. Machin, Esq., Worksop.

For eight trebles, distinct, competition was again good, H. V. Machin, Esq., securing the chief prize here with a beautiful lot of flowers, Frau Karl Druschki and Ulri Brunner being the two best. Second and third prizes we respectively to E. B. Lindsell, Esq., and F. Dennison, Es

For nine blooms of any Rose except Tea or Noisett five boxes were staged, F. Dennison, Esq., winning fi prize with Her Majesty. Conway Jones, Esq., was secon with Dean Hole, and H. V. Machin, Esq., third with sam flowers of Mrs. T. Roosevelt.

Open to growers of fewer than 2,000 plants.—The were three entries for eighteen blooms, distinct, the Re F. Page-Roberts winning first prize with an excellent lo Frau Karl Druschki and Bessie Brown being his two bes Second and third prizes were won in the order named b the Rev. R. Powley, Upton, Scudamore, and W. Jarra Thorpe, Esq., Gloucester.

For six trebles, the Rev. F. Page-Roberts was again the front, Lady Ashtown and Mrs. T. Roosevelt being good form in his box. The Rev. F. Powley was second an W. Jarratt Thorpe, Esq., third.

For twelve blooms, distinct, open only to growers fewer than 1,000 plants, there were four entries, C. Lamp lough, Esq., Alverstoke, being first. His Frau Ka Druschki and White Maman Cochet were very fine. Secon and third prizes were won in the order named by Mr Fisher, Potterne, Devizes, and Mahlon Whitlee, Esq Leicester.

For nine blooms, distinct, G. W. Cook, Esq., Radstock Whitstone, was first out of three competitors.

For twelve blooms, distinct, open to all amateurs, ther were two entries, Alex. H. Gray, Esq., Bath, winning firs prize with a good lot of flowers, Maman Cochet, Mme Cusin and Molly Sharman Crawford being his three best Conway Jones, Esq., was second.

For nine blooms of any one variety, there were onl two entries, Alex. H. Gray, Esq., being first with Whit Maman Cochet, and Conway Jones, Esq., second wit Mme. Jules Gravereaux.

For nine blooms, distinct, open only to growers of fewe than 500 Teas, there were four entries, the Rev. R. Powley Upton, being first; W. Jarratt Thorpe, Esq., second and R. Foley Hobbs, Esq., third.

For twelve distinct varieties of decorative Roses, ope to all amateurs, the Rev. J. H. Pemberton, Havering atte-Bower, Essex, was first with an excellent lot o flowers, the single Una being exceptionally beautifu Second prize was won by H. V. Machin, Esq., who was th only other exhibitor in this class.

In a similar but smaller class, A. C. Turner, Esq., Walton on-Thames, the Rev. R. Powley, and G. W. Cook, Esq won in the order named.

NEW ROSES.

Mabel Drew.—A seedling Hybrid Tea, the flowers o which are large and full, the colour being primrose yellow As shown the flowers possessed a sweet but not extr strong fragrance. Shown by Messrs. Alex. Dickson an Sons, Limited, Newtownards. Gold medal.

Mrs. Amy Hammond.—Another seedling Hybrid Tea o much merit, the conical-shaped flowers being ivory white suffused apricot pink. The petals are beautifully reflexed similar to those of La France. Very fragrant. Show by Messrs. S. McGredy and Sons, Portadown. Gold meda

Mrs. Cornwallis West.—A very full Hybrid Tea o conical though blunt-pointed form, the colour being ivor white, tinted blush pink. The petals are nicely reflexe and the flowers very fragrant. Shown by Messrs. Alex Dickson and Sons. Gold medal.

Mrs. Arthur E. Coxhead.—A seedling Hybrid Tea o beautiful conical shape somewhat after the style o Richmond. The flowers are exceedingly fragrant, th being quite a feature, and bright crimson cerise in colou Shown by Messrs. S. McGredy and Sons. Gold medal.

Frank Thorpe.—A large-flowered Hybrid Tea of conica shape, the petals being beautifully reflexed. The colou is glowing scarlet crimson, and the flowers are moderatel fragrant. Shown by Mr. Hugh Dickson, Belfast. Silve gilt medal.

Earl of Gosford.—A seedling Hybrid Tea somewha after the colour of Leslie Holland, but more of a garde Rose. Shown by Messrs. S. McGredy and Sons. Silve gilt medal.

Rescue.—A single bedding Rose of great beauty, th large petals being bright cerise, shading to creamy whit in the centre. The mass of golden stamens in the cent add much to the beauty of the flower, which is sweetl scented. The petals are much reflexed at the edge Shown by Mr. J. Mattock, Headington. Card of commen dation.

Lucy Williams.—A new seedling Tea of much refinemen though the flowers are rather thin. The shape is conica colour clear ivory white, and very fragrant. Shown b Messrs. S. McGredy and Sons. Card of commendation.

Mrs. W. T. Massey.—This is described by the raiser a a yellow Irish Elegance, and those who know that popula single-flowered variety will from such description get good idea of this newcomer. Shown by Messrs. S. Bid and Sons, Farnham. Card of commendation.

Mrs. Frank Workman.—A Hybrid Tea of bright ros shaded silver colouring, the flowers being large and rath flat. Very fragrant. Shown by Mr. Hugh Dickso Belfast. Card of commendation.

Best Blooms in the Show.—The following varieti received the society's silver medal offered for the be blooms in the show: Nurserymen's section—Hybri Perpetual, Ulster, shown by Messrs. Alex. Dickson an Sons, Newtownards; Hybrid Tea, Konigin Carola, show by Mr. Hugh Dickson, Belfast; Tea or Noisette, Mama Cochet, shown by Mr. G. Prince, Longworth. Amateur section—Hybrid Perpetual, A. K. Williams, shown b E. B. Lindsell, Esq., Hitchin; Hybrid Tea, C. J. Graham shown by F. Dennison, Esq., Leamington; Tea or Noisett White Maman Cochet, shown by Dr. F. G. Hayes, Dunste

THE GARDEN.

No. 2019.—Vol. LXXIV. July 30, 1910.

CONTENTS.

Flowers at the Japan-British Exhibition 373
Notes of the Week
Forthcoming events 374
Correspondence
Lime in the soil for plants generally .. 375
Philesia buxifolia .. 375
Gardening of the Week
For the South and South Midlands .. 375
For the North and North Midlands .. 375
The National Sweet Pea Society 376
Trees and Shrubs
Shrubs with coloured leaves 376
Escallonia philippiana 377
Fruit Garden
The Strawberry: Its culture and varieties 377
Rose Garden
Some beautiful new crimson Roses .. 378
Flower Garden
Sweet Pea chat .. 378
Flower Garden
Sweet Pea Mrs. Hugh Dickson 379
Ranunculus Lyallii in New Zealand .. 379
Three good rock garden plants .. 379
Coloured Plate
Some novelties from Barr's 379
Gardening for Beginners
Garden work week by week 380
Increasing the Polyanthuses and Primroses by division 380
Violets 381
Lifting and storing Shallots 381
The Town Garden .. 381
Kitchen Garden
Cabbages for spring 382
Books 382
Editor's Table 383
Answers to Correspondents
Flower garden .. 383
Trees and shrubs .. 384
Greenhouse 384
Fruit garden 384

ILLUSTRATIONS.

The National Sweet Pea Society's outing 376
Strawberry Laxton's Reward 377
The new Sweet Pea Mrs. Hugh Dickson 378
Some novelties from Barr's .. .. .. Coloured plate
Ranunculus Lyallii growing in New Zealand 379
How to increase Polyanthuses and Primroses .. 380, 381

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

FLOWERS AT THE JAPAN-BRITISH EXHIBITION.

THERE is one phase of great popular exhibitions that has deepened interest in such representations of the world's industries or whatever may be the reason of their inauguration, and that is the beautifying of the grounds. It is on account of this we give prominence to the gardens at the Japan-British Exhibition, and these should strengthen considerably a praiseworthy endeavour to bring into somewhat unsympathetic surroundings the flowers that colour and scent the English home. We were delighted on a recent visit to find masses of Roses and hardy plants, and it is in places of vast extent that the finest effects are realised. They are thrown into bold and pleasant relief to the buildings that surround them, and in one court a great gathering of crimson Geraniums against the white background showed the remarkable colour and, at the same time, simple result. There are few exhibitors, but these are from among the best known of our nurserymen.

The Roses are delightful. Remove for the moment a sense of one's surroundings, and thoughts of the English garden are recalled, where Roses in rich variety and grouping flood the beds with diversified colouring. All the kinds were planted in the spring of this year, and many of the finest hybrids are represented. Messrs. William Paul and Son of Waltham Cross receive the highest award, the diploma of "Grand Prize," for a remarkable garden of Roses, which include exquisite groups of Killarney, Caroline Testout, the perfectly shaped Hybrid Perpetual Captain Hayward, Mrs. J. Laing (which is one of the most successful of all, either in the form of a bush or a standard), Hugh Dickson (a splash of glorious crimson), Marquise de Sinety, Mme. Pernet-Ducher, Florence Pemberton (a cloud of cream and pink) and the beautiful new climbing Rose Tausendschön, which has pink and carmine flowers. The whole of the Rose-beds are cared for as much as if they were in an English garden, and the bringing of Roses into such an exhibition as this imparts to it a charm not given by the commonplace bedding out of exotics, although these in suitable environment are, of course, appropriate. It is seldom, we think, that Roses and hardy flowers have played so conspicuous a part in an exhibition, and the white buildings accentuate the colouring of the flowers.

Messrs. Paul and Son, The Old Nurseries, Cheshunt, have received a gold medal for beds of Roses that are remarkable for their variety. One of the most alluring features was the edging of Roses, and this consisted of the Dwarf Polyantha Katherine Zeimet, which at the time of our visit was a mass of flowers, the dwarf, sturdy growth covered over with white from the abundance of bloom. Such an edging, if one may so describe it, in a suburb conveys a lesson that Ivy is not the only plant-life available. A charming small group of the brilliant rose-coloured Aennchen Müller is as conspicuous as Fabvier Rose—a bright spot, and with every evidence of continuing so for many weeks. There were also groups of such Roses as Lady Rossmore (a warm shade of crimson), Richmond (which is too well known to describe), Princesse Marie Mertchersky (a Hybrid Tea of an exquisite silvery rose colour) and many others. There should be a beautiful autumn display if this unreasonable weather becomes reasonable.

There is, happily, a reflection of the garden in the cool colouring of the hardy flowers from Messrs. Kelway and Son of Langport. In planning a grouping of hardy flowers such as is portrayed in this exhibition, it is impossible to achieve a brilliant picture of colour at all seasons of the year. Early in the season the Pyrethrums and Pæonies were glorious. These have flown, and now the Delphiniums are a soft cloud of blue, with in one of the borders a plant which, we think, is one of the "flower Mark Tapleys" of our gardens —Erigeron speciosus superbus, a soft mauve colour which even rain and the atmosphere of a large city does not dim. In many places the hardy perennials from Langport are in evidence, and planted with the greatest effort to preserve an atmosphere of an English garden. A gold medal was deservedly awarded to this firm.

In one little sunk garden there are Pansies of the cornuta class, which one remembers in almost boyhood days, and these, planted in distinct colour masses, were, three weeks ago, a dense carpet of dark and light blue and white; there has come a lull, but soon they will burst out again in their autumn dress and delight flower-lovers who visit this exhibition with the simplicity of the massing of such beautiful garden flowers. These come from Messrs. Gunn and Sons, Olton, Birmingham, and received a silver medal.

The splendour of the flowers of Messrs. Toogood and Sons of Southampton, who have been most worthily awarded a gold medal, has yet, in a sense, to be realised. The Dahlias are superb in strength and promise of flower glory, and the Begonias in one garden are in many shades of pronounced colours — crimson and gold and white. The Nemesias are interesting, and in one bed we noticed a new Geranium raised by this firm, a cross between an Ivy-leaved and a Zonal variety, and called James T. Hamilton. Its scarlet flowers light up the enclosure in which they are placed, and in due course this novelty should force its way into public favour.

The Rhododendrons from Messrs. John Waterer of Bagshot were magnificent when the exhibition first opened, and at this time the green foliage is refreshing; and the lawns from Messrs. Sutton and Sons' seed, which was sown in May, are sufficiently close and level to play upon at this date. A gold medal was also awarded to this feature.

Apart from the trade exhibits, there is the gardening that has been undertaken by the Exhibition authorities themselves, under their excellent superintendent, Mr. R. Russell. Against one of the buildings in the Court of Progress there is a border filled with evergreen shrubs and hardy flowers, for the most part those that flower in autumn—Michaelmas Daisies, Golden Rods and others that bring joy to the autumn garden. This had the effect a few days ago of a border of Rosemary and Lavender, and nothing was more appropriate with the white wall as a background. It seemed to bring thoughts of the gardens at home and abroad very near to one.

Wherever opportunities have been given of quiet and beautiful associations of colour, these have not been lost sight of. The gardens are worthy of the beautiful exhibition and form no small part of the attractions offered to visitors. Many who are unaware of the newer Roses that gladden flower gardeners to-day may learn something from such a place as that popularly known as the "White City."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 2.—Royal Horticultural Society's Meeting, Horticultural Hall, Westminster, 1 to 6 p.m.

August 9.—Weston-super-Mare Flower Show.

Royal Horticultural Society.—There are now but very few vacancies remaining for students wishing to begin the two years' course of study at the Wisley Gardens of the Royal Horticultural Society in September next. Young fellows over the age of sixteen wishing to avail themselves of the tuition and training offered by the society should make application immediately on forms to be obtained from the secretary of the Royal Horticultural Society, Vincent Square, Westminster. An entrance fee of £5 5s. is charged, and students board and lodge at their own expense in the adjoining villages. The training given includes both a scientific and a practical knowledge of gardening, and various germane examinations are prepared for, including the diploma of the school, given to students who show a sufficiently high standard of knowledge at the completion of the two years' course. This information may be useful to youths about to leave their school.—W. WILKS, *Secretary*.

The Royal Horticultural Society's Autumn Fruit Show.—The reappearance of the schedule, after a year's non-issue, of the great autumn show of fruit, held in the Vincent Square Hall, will be regarded with profound satisfaction by all home fruit-growers. The dates of the show are October 13 and 14, and, while doubtless well suited for the general body of Apples and Pears and our primary hardy tree fruits, it is full late for Peaches, Nectarines and Plums; hence the numbers of these stone fruits presented may be very limited, as also may be their average quality. There are the usual classes for collections of fruits and of Grapes, these latter having no fewer than ten classes devoted to them. The very interesting county classes for Apples and Pears are continued, as also are those for nurserymen, market gardeners and other sections of growers. The popular single-dish classes for Apples and Pears include twenty-six specially named of dessert and twenty-nine of cooking Apples, the latter including, for the first time, the new Rev. W. Wilks. Of Pears thirty-seven named varieties are in separate classes, and with both these and dessert Apples have been added classes for specially late varieties of any others not named or sufficiently ripe to come into a previous similar class for fruits fit for table. Without doubt the show, even with a sparse fruit season, will again become a widely attractive feature.

The National Vegetable Society.—On the 19th inst. a deputation of the committee of this society visited the trials of autumn-sown Onions which have been conducted by Mr. W. Poupart at Twickenham. Between twenty and thirty different stocks have been grown, and in each instance some plants were allowed to mature where sown and others were transplanted. The results are of an exceedingly interesting and instructive character, and a report will be drawn up and published in due course. We would remind our readers of the useful work that is being quietly done by this society, which, however, needs more members. An exhibition of vegetables is to be held in the Horticultural Hall, Vincent Square, Westminster, on September 28, when all members will be allowed to compete. Copies of the schedule and full particulars can be obtained from the hon. secretary, Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow.

Reigate Gardeners' Outing.—By kind permission of the Rev. A. Bridges, M.A., the members of the Redhill, Reigate and District Gardeners' Mutual Improvement Association paid a visit to the gardens of Worth Rectory on Thursday, July 14. Journeying by brake and cycle the party reached Worth about 6 p.m.. They were met at the rectory gates by the Rev. A. Bridges and his head-gardener (Mr. C. Daisley). After a cordial welcome, each member was presented with a ticket of admittance to the grounds, where a Rose fete was being held for a charitable purpose. The party were then led on to the terraces, and from there to the Rose walk, where Roses of every description in endless variety were to be seen. In the garden, by the herbaceous borders, round various walks and in all sorts of nooks and corners, no matter where they looked the members inspected Roses such as few had ever had the chance of seeing before. Enlightened by the lucid explanations of Mr. Bridges and Mr. Daisley, the members roamed about the beautiful garden for a considerable time. Reaching a point of vantage from which a bird's-eye view of the whole of the Rose garden could be obtained, there could be seen giant rustic arches covered with ramblers, imposing and endess pillar Roses, hybrids, bush, Teas and many others. The Sweet Peas also called forth a good deal of comment, Dorothy Tennant, Constance Oliver, Lord Nelson and Douglas Unwin claiming a good deal of attention. In the flower borders the Sweet William, Iris, Spiræa, Delphiniums, Echeveria, Clematis and hosts of other plants and flowers proved to be of the utmost interest to all. The beds and clumps of Dahlias (of which Mr. Daisley is a noted grower) were also greatly admired. Other features of interest were the Laburnum walk, the dingle, the lakes and the ornamental terraces; a good number of the members also visited the ancient church, which is said to be over a thousand years old. The thanks of the party were conveyed to the Rev. A. Bridges and Mr. Daisley by Mr. W. Rose (hon. secretary) and Mr. W. Wells.—CLARKE STEVENSON.

CORRESPONDENCE.

(*The Editor is not responsible for the opinions expressed by correspondents.*)

Criticism of the National Sweet Pea Society's Exhibition.—While Sweet Peas and all that concerns them are still in the air, I would like to invite attention to one or two things which arose out of the recent show of the society. First and most important was the disqualification of Mr. Usher in the Sutton Cup class. It really seems incredible that, because in a superb collection of 540 flowers required one spray only was found in excess of the required number, not only should complete disqualification result, but that the exhibitor should have to suffer all the humiliation incidental to such a singularly trifling error. Making the punishment to fit the crime was in this case anything but Gilbertian. What a door does this act open to any one competitor; if so disposed securing the disqualification of each competitor on either side of his own exhibit. Surely it should be in the power of the committee to devise some regulation that should not lead to results so immensely harsh and unjust. Who was the competitor who so industriously counted all the sprays in Mr. Usher's collection, and what induced him to do it? Has any one competitor a right to do this? On whom rests the responsibility of seeing that in regard to the numbers of sprays in a vase those numbers are correct? Does it lie with the exhibitor? If so, his attention should have been called to his error and have been allowed to remedy it. If the committee, then the committee should accept the responsibility of seeing that there were no improper attempted infractions of the regulations. If the judges, then, instead of being judges of quality, they become mere enumerators, and their time would be occupied in counting. Some definite remedy for such unfortunate things is badly needed. The decorated dinner-tables were very tame and monotonous. Some form of class is badly needed to enable ladies to display originality in decorative efforts as also in bowls and epergnes. These tables and articles are mere reproductions from year to year. What a superb class could be made from the Burpee Cup competition if the tables allotted to it were of treble their present size! The really superb lot of flowers shown by Mr. R. Bolton, could they have been far more widely displayed, would have been a fine decorative effort and a striking feature.—A. D.

Some desirable weeds.—There are already a number of native plants that are welcomed in our gardens, some of them still close to the type, others improved by cultivation. But two that

are now in flower I do not think have been either specially encouraged when they have occurred or deliberately sown and grown for garden use. The small trailing St. John's Wort (Hypericum humifusum) has spontaneously covered some bare places in the rock garden. It is an extremely neat, well-finished little plant, with trailing stems studded with numerous small, bright yellow flowers—well worthy of such a place. Two years ago, walking with a friend in rough ground on a southern slope near her garden, the Field Scabious (Knautia arvensis) was in such beauty that it seemed well worthy of garden culture. The colour is always within a range between light purplish mauve and lavender; never quite so red as the colour of the wild Mallow that stands as the type of mauve, and never quite so cool or inclining towards blue as the bloom of Lavender, but everything within the two. In the large quantity within sight the bluest shades seemed the most desirable, and I pointed out a few and begged to have the seed. It was sown the following spring, and now, at two years old, they are handsome border plants. There is enough bloom at a time to make distinct effects of soft pale purplish clouds, and an abundance of side growth and buds that promise a good succession. We have already beautiful border plants of the Scabious family, but, with the exception of S. caucasica, a difficult plant in many gardens, and a tall yellow one of quite different aspect, they are annuals, while the Field Scabious is a perennial.—G. JEKYLL.

Lime in the soil for plants generally. I wish readers of THE GARDEN would assist in compiling a comprehensive list of bulbs and plants that will not suffer from the presence of lime. No book that I know of treats of the subject. Take Lilies; no book mentions lime. Do the rarer American species require it or dislike it? The same of the Himalayan and Japanese. Do any Rhododendrons from the East suffer from it? I have seen it stated that R. racemosum grows naturally on limestone and gravel. Will it in England? Daphnes are usually classed as "American" plants. D. Cneorum and blagayana thrive on the oolite. Iris Kæmpferi will not stand lime. Tropæolum speciosum revels with me in limestone clay; I have a Yew hedge 10 feet high covered with it.—R. W.

Philesia buxifolia.—Many who love their gardens, especially in the colder parts of the United Kingdom, find much difficulty in cultivating the charming little shrub known as Philesia buxifolia. There are several methods of treatment which are advocated, one being to give it a position in the bog garden, but on the drier parts of the same. Shelter from cold winds should be given, also a little protection with Bracken in winter. Annual layering by pegging down the branches after flowering is also advocated, and is excellent. For many, however, the best method of cultivation is to keep the Philesia constantly in a shady part of the garden in peat soil, and with a hand-light over the place. During summer the top of this should be removed, but in spring and autumn it ought not to be kept off, only tilting it across the lower part of the light so as to give air but retain the shelter. In winter the top should be left on, except on very fine days, when it should be set across cornerwise, but replaced at night. The soil should never be allowed to become too dry, or the buds may drop and the plant grow withered. Philesia buxifolia is a handsome little shrub, only a few inches high, and having narrow, dark green foliage and numbers of bright scarlet, tube-shaped flowers. In the greenhouse it is said to attain as much as 4 feet high, but in the open it is quite dwarf. The flowers are like those of a Lapageria. It is a native of Chili.—S. ARNOTT.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

BULBS FOR FORCING.—Roman Hyacinths and Paper-White Narcissi should be obtained and potted as early as possible. Soil consisting of half loam and half old hot-bed material is very suitable. Five-inch pots are generally used for Hyacinths and the 7-inch size for the Narcissi. After potting they should be given a good watering and plunged in ashes outdoors, covering the pots with 2 inches of the ashes. There they may remain until they have made sufficient roots and top growth to allow them to be taken out from the ashes and placed in cold frames. It is advisable to grow some in boxes for cutting. These may be treated in the same way as advised for the pots, that is, burying them in the ashes to start.

Primulas.—The last batch of these, now in 3-inch pots and which are intended to flower in February and March, should be put into the flowering pots. The most suitable soil for these has been explained in former calendars.

Cyclamen.—This is an excellent time for sowing seeds of the above. Fill up 6-inch pots with a mixture of half loam, half leaf-soil, with a good sprinkling of sharp sand. The seeds should only be just covered and watered. Place a sheet of glass over the pots and cover with paper. A warm house is best for germination.

KITCHEN GARDEN.

Turnips.—A good breadth of these ought to be sown now for winter use. A piece of ground in the open garden should be selected, and it must be very firm. Red Globe is an excellent variety for the purpose and one of the best. Orange Jelly and Chirk Castle are also good for standing the winter.

Spinach.—This useful vegetable well repays for the little trouble that is required to produce it, and a sowing of the Long-standing variety should be made. The seed should be sown in drills from 12 inches to 15 inches apart, and the seedlings slightly thinned as soon as the young plants are large enough to handle.

Parsley.—This should be sown freely to provide a good supply for the winter. The finest foliage is obtained from plants grown singly; therefore, when the seedlings are large enough, it is advisable to thin them out to 6 inches apart. If one has a frame to spare, it is a good plan to sow in it, when it can be easily protected during hard weather.

FLOWER GARDEN.

Anemones.—Where it is necessary to make fresh beds, prepare them at once. Give the ground selected for the purpose a good dressing of decayed leaf-soil and sand, thoroughly incorporating the dressing with the soil. They should be 4 feet wide, with a 2-feet alley between the beds for the purpose of cutting, cleaning and other work. Obtain the roots and plant them as soon as possible. A bed 4 feet wide may contain four rows, planting the roots 9 inches apart in the rows.

Violets.—During dry weather these will require plenty of attention with regard to watering, weeding and hoeing. Red spider frequently attacks them, and when it appears, a few syringings with "Spidercide" soon stops it. All runners must be picked off as soon as they appear.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT GARDEN.

FORCING STRAWBERRIES.—The layering of the plants for forcing must no longer be delayed. Use 3-inch pots and light sandy soil. Plunge the pots between the rows and peg down only good strong runners. I have seen good results from plants lifted in August from the open and potted up; but if time can be found to layer into pots or squares of turf, there is no check to the plants. In dry weather watering must never be neglected.

Netting Late Fruits.—Even the latest Gooseberries must now be netted, also Apricots, Morello Cherries, early Plums and early Pears. It is troublesome work and takes up much valuable time, but pays in the end.

Cleaning.—The fruit quarters are often allowed to get very dirty before any attempt is made to clear off the weeds. It is, of course, a mistake, but if the place is at all short-handed it is natural to leave the fruit quarters until the last. Should the weeds have got to some size, the most satisfactory method of clearing the ground is by hand picking. It may take a little longer, but will eventually give th best results. After hand weeding, a run over with the Dutch hoe will leave a tidy, but loose, surface, very conducive to the welfare of the bushes.

ROCK GARDEN.

Re-labelling.—Where wood tallies are used, these naturally rot at the points after two years' service, and fresh ones must be given, as there are few who do not forget names should the collections be at all extensive. Now is a good time to renew the labels. It is rather a tedious task where there are large numbers to go over, but with the aid of a boy to carry the tallies and stick them in, much can be done in a short while. More annoying than having no tallies at all is to have a plant wrongly named. Nowadays so many interest themselves in hardy plants that it is unwise to put a label to a plant unless one is certain that it is the correct name.

Unsuitable Plants.—Often one is induced to try a plant in the rock garden which may turn out quite unsuited to the position accorded it, or its colour or habit may not be pleasing. If it has to be discarded entirely, no time should be lost in removing it. If it is intended to plant it again in some other spot more suitable to its growth, then a coloured tally or short stake should be placed close to it as a reminder, later in the year, that this particular plant has to be seen to.

PLANTS UNDER GLASS.

Pelargoniums.—As these showy plants go out of flower, remove them to the open air and set in a sunny position to ripen the wood. Afford a little water for ten days after placing them outside, afterwards turning the pots over on their sides. Before the wood gets too hard, cuttings, according to requirements, should be secured. If allowed to turn quite brown and firm, it is difficult to get them to root, or at least they take a long time about it. Insert the cuttings in 5-inch pots of light soil, but make it very firm round the cuttings. Set in a cold frame, keep moist and shaded, and a good percentage will root. When the wood of the old plants gets quite brown and firm, they ought to be cut back to within 1 inch of the old wood and then stood in a cold frame. The sash should be tilted back and front, as it is only to shield from rain that it is required. Give no water at the roots until the buds break, but a spraying overhead once a day is very beneficial, inducing strong, healthy growth to form. Place in a cool greenhouse at the end of September.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE NATIONAL SWEET PEA SOCIETY.

The accompanying illustrations represent some of the members of the National Sweet Pea Society on the occasion of their recent visit to Prested Hall, Kelvedon, by the kind invitation of N. N. Sherwood, Esq., V.M.H., and which was described in our issue of last week. In the illustration below Mr. Robert Sydenham, or "Uncle Robert" as he is known by other members, is seen in the foreground enjoying himself. In the other illustration an excellent portrait of Miss Philbrick, the lady on the right, is given. The illustrations are from snapshot photographs taken by Dr. Robert Boxall, who very kindly allowed us to reproduce them.

MEMBERS OF THE NATIONAL SWEET PEA SOCIETY AT PRESTED HALL, KELVEDON.

TREES AND SHRUBS.

SHRUBS WITH COLOURED LEAVES.

GROUPS of shrubs with brightly coloured foliage placed here and there about the garden have much to commend them, for they lighten the landscape long after the flowers of other shrubs have disappeared. This is specially the case with evergreens, and we can perhaps appreciate their value most highly during winter, for at that period what is more effective than a really good golden or silver variegated Holly or a mass of some showy-leaved Ivy? It is, however, necessary to exercise care in the selection of positions for these variegated plants, for, though their adoption in certain situations is attended with the happiest results, their presence in other places would be more or less of an eyesore. Their proper place is the well-kept parts of the pleasure grounds, while here and there groups or isolated specimens of some special tree, such as Copper Beech or Golden Elm, may be admissible, but they must be kept out of the wild garden and not be allowed to encroach on natural woodland. Like many florists' flowers, these plants are very showy and useful in their proper place; but in the woodland a mixed bed of ornamental-foliaged shrubs would look as incongruous as a bed of Pentstemons or garden Phloxes placed in a similar position.

For the garden proper a conspicuous position should be allotted for a large bed of mixed foliage shrubs, while smaller beds here and there might contain choice subjects to form a distinct feature. On the outskirts of a lawn a bed of the lovely little variegated Ivy, Silver Queen, is always effective, while for the warmer parts of the country the same may be said for Euonymus radicans Silver Gem. Then there are several golden Ivies of bushy growth which are similarly effective, while the purple-leaved Osmanthus adds variety to the scene. Some deciduous shrubs are little behind these evergreens in general effect, and in passing one cannot forbear to make mention of the Golden and Silver Dogwoods, Cornus alba Spæthii and C. alba variegata. Then there are the numerous varieties of the Japanese Maples, many of which are extremely beautiful, both on account of their highly coloured foliage and finely cut leaves. A wide range of colour may be obtained, from the daintiest greens to deep purple, and from gold to red, some having self-coloured leaves and others parti-coloured foliage. For a bold mass the purple-leaved Nut has much to commend it, while another purple-foliaged shrub is noticeable in a distinct form of the common Barberry. Among larger-growing subjects we find the Hollies the most useful in the evergreen section, and a well-grown example of the Golden Queen or Silver Queen variety leaves little to be desired, while people who wish for greater variety may obtain many Hollies, all of which are distinct in foliage or growth. When selecting deciduous trees, a considerable amount of discretion is required if the best are to be obtained, for it must be admitted that some variegated-leaved plants should never have been put on the market. With two exceptions the variegated Prunuses are valueless, while the same may be said of variegated Apples. The two Plums which are the exception are P. cerasifera atropurpurea, or P. Pissardii as it is often called, and the purple-leaved form of P. spinosa, which has only been grown for a few years. Taking no heed of the inferior kinds, we find some worthy of our attention and it is only necessary to turn our thoughts to such trees as the golden-leaved Elm Louis van Houtte, the golden-foliaged, upright-growing variety of the Mountain Elm, the golden Catalpa, the silver variegated Elms, both of the strong-growing kinds, of which latifolia variegata is an example, and the weaker-growing sorts, which are represented by the viminalis group, to find what a wealth of material we have.

The Poplars, again, have much to commend them, for we find a beautiful golden-leaved tree in Populus deltoidea aurea, a white-leaved tree in P. alba nivea, and a purple-foliaged plant in P. tremula purpurea. One or two Oaks, too, may be pressed into service, for there is the silver variegated form of Quercus Cerris, the purple-foliaged Q. pedunculata purpurascens and the golden pedunculata Concordia and rubra aurea. In addition there are forms with silver and green variegated leaves, of which the best is possibly the variegated form of the Turkey Oak. The purple and copper leaved Beeches are a host in themselves, while among the Sycamores we find several varieties with purple and variegated leaves, and some decorative silver and gold variegated forms of the Box Elder (Acer Negundo) may be obtained. Turning to mixed groups of shrubs, we find that they are most effective when a few trees are sprinkled among them to relieve any suggestion of flatness and to add variety. Almost any of the taller-growing kinds may be used if we except the strongest Elms, the Beeches and the Poplars, for, if they appear to be inclined to grow too large to group well with the smaller subjects, they may readily be reduced by pruning. After a few of these trees have been inserted, the ground should be filled in with the numerous smaller plants, each kind being planted in a small group. Care must be taken not to overdo any one colour, particularly the purples, or the general effect will be too heavy. Use must, however, be made of the various gold and silver foliaged kinds. Of the latter there are good plants in Atriplex Halimus and the Cotton Lavender, while a group of ordinary Lavender is not out of place. The Japanese Maples are well adapted for conspicuous positions, while an odd plant or two of the golden Privet serves to add a bright touch of colour. Neither need our walls go unadorned with touches of colour, for among the numerous trailing Ivies may be found many with silver, gold or purple foliage. From this it

THE NATIONAL SWEET PEA SOCIETY'S OUTING. MR. R. SYDENHAM ("UNCLE ROBERT") ENJOYING HIMSELF.

will be seen that we have a wide range of shrubs to select from, whose leaves are showy for a considerable period of the year. W. DALLIMORE.

ESCALLONIA PHILIPPIANA.

THIS is the hardiest of the Escallonias, and may be planted in all except the coldest parts of the country. It is a native of Valdivia, and grows into a shapely bush 4 feet or so high. It differs from most of the species by being deciduous. The leaves are small, barely exceeding half an inch in length, and they are edged with tiny teeth. The flowers are white, tinged on the outer surface with pink, and they are borne in stiff racemes 2 inches long, the flowering period being late June and July. Its free-flowering qualities and general appearance warrant it extended cultivation; but it is not only as a good garden plant that it has value, for in the hands of the hybridist it has proved an excellent parent, and there are several first-class hybrids which claim it as one parent. As an instance, it is only necessary to direct attention to the beautiful red-flowered E. langleyensis, an illustration of which appeared in THE GARDEN recently. E. philippiana is not a difficult shrub to grow, for it succeeds in any good garden soil and is readily increased by means of cuttings of half-ripe shoots in summer. Young plants attain a suitable size for permanent planting in two years from the time at which the cuttings are taken. To get young plants to assume a sturdy foundation, the points of the shoots should be cut out occasionally. W. D.

THE FRUIT GARDEN.

THE STRAWBERRY: ITS CULTURE AND VARIETIES.

THIS fruit is now grown so largely, and with a little trouble it can be grown so well, that at this season a few notes as to its culture and the value of the newer varieties may be interesting. The fruiting season may now be considerably prolonged by growing early, midseason and late varieties, and for home supplies I will note some of the later introductions which are most valuable in their season. The variety illustrated, Laxton's Reward, is worth special notice where good flavour and other excellent qualities are required.

In this article I do not intend to deal largely with forcing varieties, though last season saw the advent of the new variety George Monro, a Strawberry that was much liked for its free-cropping qualities, flavour and earliness, and when exhibited early last season it received an award from the Royal Horticultural Society. Few varieties have been grown so largely as Royal Sovereign. This was the leading forcing Strawberry in the trials of the Royal Horticultural Society last year, and doubtless it is even now the best all-round Strawberry grown. The old Sir J. Paxton is still a favourite in many places, and rightly so, as it possesses many excellent qualities. It is later than Royal Sovereign, sets well, and is one of the best for travelling on account of its firmness.

Culture.—The old system is, or should be, nearly obsolete that allowed the plants to remain for a long period on the same ground and produce a poor crop of small fruits. Excellent results are secured by growing these plants more like annuals. Even in large market gardens at the present day it is found that much better results are secured when the plants are frequently given a new site and the land that has borne Strawberries is given a long rest from the same crop. In a private garden I raised 10,000 runners annually, part for forcing and the other to be grown as yearlings to produce very fine fruits, and this mode of culture was most successful, as not only were fine fruits secured, free from blemish, but what is of great importance to the private grower, who has only got garden land to rely on, the soil was not unduly impoverished. Deep working of the soil is an important item, and there are so many crops that can follow the Strawberry and which give a good return. Of course, to get the best results from young plants, early, strong runners must be planted and some little attention at the start given.

The Sort.—The Strawberry is by no means fastidious as regards soil. It is surprising what results can be secured in what may be termed poor soil, but here I may emphasise my previous remarks that the plants should not be long in one place. It is a simple matter to make the soil suitable; for instance, heavy loam, which when well worked and drained the Strawberry does well in, is readily improved by the addition of any burnt refuse or material that lightens; whereas a light, sandy soil should get additions of heavy soil and plenty of good decayed stable manure. It is useless to plant in October or November and expect a heavy crop next June. At the same time, it is not always convenient to plant in the early autumn, and then it is an excellent plan to plant the runners now in good soil in rows 12 inches apart and lift into their permanent quarters in the spring, moving them carefully with a ball of earth and planting firmly, subsequently removing the flower-trusses that show. These plants the following season will give splendid fruits. Whenever ample room can be given Strawberries, so much the better, as in a wet season, if the plants are at all close together, they decay badly. In a light soil at the planting I always find it a good plan to put them in drills, as it is then much easier to give moisture. Plant firmly and deep enough to cover the surface roots.

STRAWBERRY LAXTON'S REWARD.

Varieties.—I have previously referred to Royal Sovereign, and as an early variety it is difficult to beat either for forcing or for open ground culture. A variety that never fails in what may be termed a poor soil is Fillbasket. This is an excellent fruit and of good quality. Bedford Champion, one of the new varieties, is also a very fine fruit, and the plant is a free grower. It follows Royal Sovereign. Next comes Reward, a very fine midseason variety and one of the newer introductions of Messrs. Laxton. It was obtained by crossing Royal Sovereign with that well-known but somewhat difficult Strawberry to grow, British Queen. The result is a grand fruit, wedge-shaped, large, of glowing crimson colour, firm and of great excellence. Another very fine midseason Strawberry that stands out well as regards quality is Pine Apple. This, in my opinion, has a good deal of the old British Queen flavour, and in addition does well in most soils. Rival, a later variety than the last-named, is also one of the new varieties that promises grandly; and if large quantities of fruit are required, one of the greatest producers is The Cropper. This was obtained from the well-known Fillbasket, and, if the term can be applied, it may be classed as an improved Fillbasket. Of other new kinds Utility is invaluable for a later crop. The well-known Waterloo, one of the darkest coloured fruits and a late Strawberry, is not always a success in some soils.

Late Fruiters.—I have referred to the value of a long supply, and of recent years some good late fruiters have been introduced. This is a great gain to growers. One that may be classed as excellent in every way is Givon's Late Prolific, a very fine fruit and not only late, but of splendid quality. It flowers late and is worth a place in all collections. Laxton's Latest, a very excellent introduction, is also one of the best of our late varieties. This is a free grower and a rich fruit. No note would be complete that omitted the Perpetuals, a new race which has given us fruits well into the autumn. The best in this section are St. Joseph, St. Antoine de Padoue and the more recent Laxton's Perpetual and Atkins's Continuity.

Hemel Hempstead. G. WYTHES.

THE ROSE GARDEN.

SOME BEAUTIFUL NEW CRIMSON ROSES.

RAISERS of Roses have shown a praiseworthy desire to meet the wishes of Rose-lovers by directing their attention to the raising of new crimson kinds, and they have succeeded far beyond one's expectations. The marvellous Rose so fittingly named

Edward Mawley claims first attention. In the words of its raisers, Messrs. McGredy and Sons, it is the Rose we have been awaiting for the last ten years; it may be called a Horace Vernet among Hybrid Tea Roses, except that we have not quite its exquisite shape. The colour is a beautiful rich crimson, touched with maroon, and there is a delightful velvety gloss, if one may so say, on the petals, which are of immense size, and the centre is well raised, but inclined to be globular. Were it but pointed, like a Catherine Mermet, one would really exclaim "Ne Plus Ultra," but as it is we all welcome this superb Rose. The growth is strong and the flowers are borne in profusion. It will possibly supplant Liberty and Richmond as a forcing Rose, although somewhat lacking the brilliancy of these two beautiful sorts. From all sides one heard nothing but praise for Edward Mawley on the occasion of its first appearance, and it must surely have received the unanimous vote of the judges who awarded it the gold medal at the recent exhibition of the National Rose Society.

Leslie Holland, which gained for Mr. Hugh Dickson the gold medal last year, was well exhibited both at the famous Holland Park Show and that of the National Rose Society in Regent's Park. It is even brighter than Hugh Dickson, but of quite Hybrid Tea growth; indeed, I should not be surprised to hear that it emanated from Etoile de France, but endowed with none of its defects as to bud opening, for Leslie Holland appears to be as free and beautiful a garden Rose as it is for exhibition.

John Bell is another splendid rich colour from the same raiser, although, perhaps, both are not wanted. One of the best crimson novelties apart from Edward Mawley is

Commander Jules Gravereaux; it is a seedling of Frau Karl Druschki, and possesses the same splendid petal and huge flower, but of a glowing crimson colour, lightly shaded with velvety maroon. In habit, foliage and growth it resembles Frau Karl Druschki. This was exhibited by Mr. Hugh Dickson, but its raisers are Messrs. J. Croibier et fils, Lyons. Although not exactly new, I would advise all who appreciate semi-double Roses to obtain

Sarah Bernhardt, for it is such a glorious rich Liberty colour and its petals are so huge that one could not desire a more effective pillar Rose than this fine variety.

P.

THE FLOWER GARDEN

SWEET PEA CHAT.

THE "NATIONAL" SHOW.

IT is not for me to give a report of the splendid display which was brought together by the National Sweet Pea Society at the Royal Horticultural Hall—this is a duty which falls to other pens than mine; but I must make some allusion to it in a general way. As a whole the exhibition was decidedly smaller than that of last season, for many growers were forced to cancel their entries, or a portion of them, at the last moment owing to the weather. It is a matter of opinion whether the promoters should deplore the smallness or the reverse. Naturally enough, all desire to see the greatest possible number of enthusiasts represented, but there is no gainsaying the fact that the additional space rendered available for the flowers shown enabled them to be far better seen, criticised and admired. Last year it was almost impossible to say decidedly what was the real quality of three-parts of the bunches staged, whereas this year one was able clearly to see the entire sets.

As a rule, then, it is safe to say that the quality, as well in regard to substance as to colour, was excellent; but to me it is equally indisputable that there was more than a suspicion of coarseness in some of the prize-winning stands. This is a matter for regret. One can forgive the man who does not make pretence that he is an expert in Sweet Peas giving the floppy flowers premier awards; but at the "National" none but an expert would be thought of as an adjudicator, and it is therefore most regrettable to see the prizes given to bunches that were on the coarse side. The exhibitors who staged them will not, naturally, admit anything of the sort, but will claim that all their blooms were the acme of refinement; but they will not convince me that they are in the right any more than they will many other people who closely examined and appraised the quality of the blossoms shown.

We do not by any manner of means want to make the Sweet Pea an ugly flower; but to feed the plants to such a degree that the flowers lose their correct form and flop about in a most ungainly way is going directly on the wrong road, and will not do the flower the smallest amount of good either for home use or for exhibition. Perhaps readers of THE GARDEN will crave space of a kindly Editor to give their views upon this point, not only so far as those exhibited at the "National" are concerned, but also the flowers at smaller shows.

Now a few words in respect of the novelties, to all of which attention will from time to time be drawn as space and opportunity offer. It can scarcely be said that there was anything of conspicuous merit which had not previously been seen. The silver medal for the finest novelty of the year went, as was fairly generally thought would be the case, to Stirling Stent. Although this has not the perfect Spencer form, it is undoubtedly a splendid flower, for it has size, substance and good shape to commend it, while the richness of the orange scarlet will make it a great favourite. The trouble with all varieties of this shade up to the present is that they burn badly, and clean, unblemished blooms can only be ensured by careful shading; but it is said that Stirling Stent has a rooted objection to burning, and that it will only do so under the utmost provocation. Let us hope that such will prove to be the fact under general cultivation. We owe this variety to Mr. Agate.

When Mr. R. Bolton first staged Charles Foster, no one was to be found who could at once accurately describe the colour, but the usual term is pastel pink, and the best advice I can give anyone who does not know what particular shade that may be is to grow the variety and see for themselves. It is magnificent, and none will regret giving it a trial. It is a bloom of strikingly attractive aspect, and is quite distinct from any other on the market.

Mr. W. J. Unwin's Eric Harvey should have a fine future before it, for the flowers are of splendid size, shape and substance, and the deep rose and white colour will, in my opinion, ensure it a prompt welcome. Mrs. W. J. Unwin was one of the elect last season, and it is widely acknowledged to be the most charming of all the flakes; it is exquisitely refined, and had even more admirers this year than it did last, and it will have still others.

SPENCER.

THE NEW SWEET PEA MRS. HUGH DICKSON. (*Reduced.*) *See page* 379.

THREE NEW NARCISSI

MICHAEL ANGELO (*top*)
SIR GALAHAD (*left*)
MICHAEL (*right*)
(*Barr & Sons*)

SWEET PEA MRS. HUGH DICKSON.

AMONG those varieties of Sweet Peas which received awards from the National Sweet Pea Society this year was Mrs. Hugh Dickson. Those who know that excellent Sweet Pea Mrs. Henry Bell, which appeals to one so strongly with its delicate combination of cream and pink colours, will only need to learn that Mrs. Hugh Dickson is by many regarded as an improved Mrs. Henry Bell to understand fully its excellent qualities. It is robust and possesses the merit of being quite fixed.

RANUNCULUS LYALLII IN NEW ZEALAND.

THE following note, with the photograph from which the accompanying illustration has been prepared, have been sent us by a New Zealand reader, Mrs. E. Izard of Whanaka. We are always pleased to receive notes and photographs from our readers in the Colonies and other countries, as by these means many beautiful plants may be brought to light, and often growing under conditions quite different to those considered necessary in this country. A plant growing in a natural state often presents quite a different and frequently more beautiful appearance than when grown under artificial conditions. "As your November corresponds with our May, I have just been reading a number of THE GARDEN for November last, and in it I saw a letter about the New Zealand Ranunculus Lyallii. I send you a photograph so that you may have some idea of its beauty. It is an alpine and grows some thousand feet up on the mountains, where it must often get covered with snow. The flowers are a waxy pure white and rather larger than the Japanese Anemone. Its leaves are like green bowls with the stem coming from the middle of the back, and they are sometimes very large. I hope the photograph will be suitable for printing."

THREE GOOD ROCK GARDEN PLANTS.

MORISIA HYPOGÆA.—This is a charming alpine plant, with its leaves arranged in dwarf rosette fashion. It is a beautiful plant for the rock garden or for associating with small Ferns. The flowers are bright yellow and half an inch or more across; very distinct and attractive.

Cyclamen Coum album.—This is suitable for the rock garden or under trees. The white flowers form a striking contrast to the round, dark red leaves. A poor soil will suit it providing there is no stagnation.

Corydalis bulbosa Halleri.—Another most interesting plant, with Fern-like foliage and purple flowers. Most of the Corydalises are yellow, but this is not. Corydalises are shade-loving plants, and sometimes the name of Fumatory is given to them.

C. T.

COLOURED PLATE.

PLATE 1405.

SOME NOVELTIES FROM BARR'S.

ONE always likes to see an old firm retain its reputation by sheer merit, and not simply to be content to trade upon its good name and to allow the push of its fame to carry it on for a few years until probably the inevitable decay becomes apparent. Messrs. Barr and Sons are not going to do this. For years they have held a unique position in the Daffodil world, and it is very pleasant and gratifying to their friends and supporters to see that they do not mean to be left behind in the race. I was lunching with Mr. William Barr on one of the Royal Horticultural Society's Tuesdays in April, after he and his brother, Mr. Rudolf, had made some extensive purchases of some of the best novelties at the hall, and he took me afterwards to see them, and in the course of conversation remarked, in answer to something I said about being able to get the money back, "We must do it; we must keep up to date," or words to that effect. The three flowers pictured in the coloured plate this week are good examples of the care and discrimination of their selections, for, not content with being raisers themselves, they take tribute from the best of their contemporaries, and some of the finest productions of Engleheart, Crosfield, the Williamses, Worsley, Haydon and de Graaff are to be found in their list.

Michael is one of the most beautiful of all large yellow trumpets. We are apt to err in estimating shades of colour, and I may be wrong in thinking the illustration presents too great a contrast between the trumpet and the perianth. My idea of the flower is that it is more of a self of a peculiar soft-looking rich yellow, with a slightly campanulate, broadly segmented perianth and a massive trumpet after the type of King Alfred. The plant has a fine erect habit and grows from 1½ feet to 1¾ feet high. The price (£25) is a high one; but if it is beyond us to-day, we can keep an eye upon the flower until it can be bought for a sum which is more in keeping with the depth of our pockets.

Michael Angelo is a grand large incomparabilis measuring 4 inches across the perianth, with broad, solid white segments, which form a beautiful setting for the large, open, red-edged canary yellow fluted crown. To-day the popular taste is for "change" and not for "Tom Thumbs," so we must try to have as many of these big fellows in our collection as we can; but £7 7s. needs finding.

Sir Galahad is a new giant Leedsii measuring 4 inches across, with a pure white, broad, imbricated perianth and an open crown of soft lemon primrose deeply flanged and frilled at its mouth. Price £18 18s. All these varieties have been raised by Mr. P. D. Williams of St. Keverne, Cornwall.

Among other good things which appear in Barr's 1910 list are Gadfly, which is a striking incomparabilis with a large fiery red eye and a white or delicate sulphur perianth which slightly reflexes. Mermaid, a giant Leedsii raised by Mr. P. D. Williams, may be called an improved White Queen. The flower is larger and the plant much taller, growing to the height of 20 inches. I firmly believe that there is a great future for this new type of Daffodil in the garden, but up to now most of them have the defect of being too short in the stem to be very effective for the purpose. Fire Dome, which is a flower of an altogether different character, may be called a yellow Will Scarlet. The huge orange scarlet cup is surrounded by pale yellow twisted petals (perianth segments), which are very much spread-eagled. Mr. Felton, in his new book on "British Floral Art," speaks in the highest terms of its suitability for cutting and, assuming the prophet's mantle, foretells for it a great future as a "decorative Daffodil." And, lastly, there is Red Beacon—quite a cheap thing if we class it with the "dears." I saw a vase of it at Haarlem this spring on one of the top rows of de Graaff's magnificent collection, and very bright and lovely it looked with its red cups and ivory perianths. The Queen-Mother opened the exhibition that day, and in the course of her tour round the tents—only they were wooden buildings at Haarlem—particularly admired this variety as she passed. It is just the thing to catch anyone's eye, and it will be a valuable acquisition for house decoration.

Later on in the year a plate will appear with some new poeticus forms, such as Dresden, Minerva and Socrates, the first of which has an all red eye, while the others have rimmed eyes. I fancy this latter type is gaining in public favour. We have had so many "all reds" that a change to something more restful and quiet is very pleasing.

JOSEPH JACOB.

RANUNCULUS LYALLII GROWING IN NEW ZEALAND.

GARDENING FOR BEGINNERS.

HOW TO INCREASE POLYANTHUSES AND PRIMROSES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—This part of the garden will now be quite at its best; the plants have made satisfactory growth and the recent spell of fine weather has to a considerable extent ripened the wood and induced freer flowering. It seems a pity to mar the beauty of the flower-beds by taking cuttings at the present

1.—AN OLD PLANT OF POLYANTHUS IN EXCELLENT CONDITION FOR DIVISION.

time, and many amateur gardeners are reluctant to do so; but it is really wise to secure a few cuttings thus early. Young shoots of many kinds of plants form roots quickly at this season, and those cultivators who only possess glass structures wherein a very moderate temperature can be maintained in winter-time should propagate some of the soft-wooded kinds now, so as to have well-rooted specimens by the time the first frosts and fogs come. Cuttings well rooted will withstand winter weather generally much better than those that are not. Zonal Pelargoniums, Coleuses, Gazanias and Heliotropes must be the first kinds dealt with. The principles on which amateurs should work must be such as to result in the securing of cuttings of the right kind without leaving big gaps, and by selecting shoots from the basal part of the plant and those that are free from flower-buds the work will be successful. Where the soil is very light, water should be given freely. Next week some hints on making and inserting cuttings will be given. Dry lawns must be watered copiously. Owing to the watering of flower-beds from time to time, the soil under the grass near them gets saturated, and then the grass grows there more rapidly than on the open portion, so that it will be advisable to mow nearer the beds oftener than the main portion of the lawn. Continue to stake and tie up tall-growing plants and to peg down the shoots of others, as growth generally is very rapid at this season.

Vegetable Garden.—The dreaded disease has already made its appearance in the Potato plantations, and no time must be lost in getting the whole crops that are affected lifted directly the tubers are ripe enough. Owing to the necessary haste for getting the tubers lifted, do not be tempted to throw down broadcast all haulm, but place it in light boxes, convey to a convenient corner and burn it there. The ashes may be returned to the soil. Separate the diseased tubers from the sound ones at lifting-time; place the others in a cool, dark shed in thin layers and there examine them again in a few days' time. The seed-tubers should be dried in open sheds or under tilted glass lights in frames. Small-bulbed Onions that part readily from the soil when gently pulled should be harvested on a fine day. Place them on mats in a cool, open shed, or, like the Potatoes, under glass lights; turn over the bulbs twice each week, and thus finish the hardening process before storing them. Other bulbs still growing freely may be watered with weak doses of liquid manure, but not if the weather is rainy, otherwise they will split. Keep all crops free from weeds.

Fruit Garden.—The gathering of the Strawberry crops has of late claimed the attention of cultivators, and much bush fruit has also been picked. Red and White Currants on healthy trees hang well, but Black Currants drop when ripe. If a few bushes are covered with mats, the fruit may be kept in good condition for two or three weeks in the case of the two former kinds, but only those bushes of Black Currants growing in north aspects should be so treated, as the fruits are naturally late in such positions. The early Apples and Pears must be carefully gathered now, and also Plums. Birds and wasps know where to find ripe fruits, and so some protection should be afforded. In many cases damaged fruits are left on the ground and even on the branches, and these specimens attract the birds and wasps. All fruits so damaged must be removed and the sound ones, when ripe, gathered and stored in cool rooms. Keep young runners cut off layered Strawberry plants and see that the latter do not suffer from want of water.

Greenhouse and Frames.—Tuberous Begonias are now making a brilliant show in the greenhouse, and on very bright days a light shading will be beneficial. Gradually withhold water from Gloxinias that have flowered, and Lilies also. While frames can be spared for the purpose, raise seedlings of biennials and perennials in them, thus keeping the young plants under control and especially safe from heavy rains. Prepare some frames or erect temporary ones for cuttings of bedding-out plants. A. A.

INCREASING THE POLYANTHUSES AND PRIMROSES BY DIVISION.

POLYANTHUSES and Primroses are dealt with under one heading, as the treatment of both is much the same. There is no more welcome flower in English gardens in the spring than the Polyanthus, which is divided into two or three classes. One, the gold-laced, is a quaint section having blooms that are margined or laced with gold, a stripe running from this down the centre of each petal to the eye, the rest of the petal partaking of quite another colour. Then there is the fancy or Giant Polyanthus, having blooms of various colours that are developed in trusses of large size on plants of robust growth. They are deservedly popular for the hardy flower garden, the colours of the flowers varying from white and yellow to intense crimson. There are also the semi-double flowers of the Hose-in-Hose kind Jack-in-the-Green and Pantaloon variations.

The common Primrose is another plant that develops best in shaded beds and borders. Considerable attention has been given to this section in more recent years, in consequence of which we now have a number of beautiful varieties. It is astonishing the array of colour that may be obtained from plants resulting from an ordinary packet of seed obtained from a reliable source. Mauve, lilac, rose, blue, blush lilac, red and many intermediate tones of colour are now represented in the better hardy border Primroses.

Now as to propagation, or increasing the plants. Most gardens have at least a few that at a certain period in their history attain too large a size. Such plants are represented by the specimen portrayed in Fig. 1. A careful scrutiny of the illustration will reveal numerous crowns, which should divide quite easily, and one such plant will invariably break up into a dozen to eighteen pieces, more or less, and in this way enable the grower to increase his stock to this extent. It is the simplest possible method of dealing with these hardy flowers, and the merest novice may, by taking note of the illustrations figured herein and the accompanying letterpress, deal with his plants quite satisfactorily. The usual period for lifting and dividing the Polyanthuses and hardy Primroses is after they have gone out of flower, and at the present time the old tufts are in excellent condition for this manipulation of their growth, as the illustration already referred to so aptly shows. That the beginner may better understand how to proceed with this work, I have depicted in Fig. 2 three divided pieces of the plant shown in Fig 1. This latter plant yielded about fifteen such pieces, some, of course, much better rooted than others, but all having roots which ensured a successful issue. Several of the divided portions gave promise of making excellent plants in the not distant future, and with ordinary care not one of them should fail. The three pieces figured are selected to show the variable character of the divided portions of the old plants, and this should be a satisfactory indication of the character the divided growths should bear. Make up the bed in which the severed growths are to be planted in a reserve quarter of the garden in a shady border.

2.—A FEW OF THE DIVIDED PIECES. EACH OF THESE WILL DEVELOP INTO A BEAUTIFUL PLANT BY NEXT FLOWERING SEASON.

These quarters should be dug over and the soil rendered friable and easy to work before the old plants are lifted, so that, once the work of division is begun, it may be soon completed. Replant the divided pieces about 6 inches apart in rows. In some gardens where the demands are limited it may be more convenient to replant these divisions of the old plants in boxes, which should not be

3.—DIVIDED PIECES REPLANTED IN A BOX AND LEFT THERE UNTIL PLANTING-OUT TIME NEXT AUTUMN. THEY MAY BE REPLANTED IN SIMILAR FASHION IN ANY SEMI-SHADED QUARTER OF THE GARDEN IF MORE CONVENIENT.

ess than 3 inches deep. I prefer 1 inch or 2 inches more.

Fig. 3 represents a number of pieces treated in his fashion. It will be observed that even here he planting is done alternately to economise space. Plants of the subjects under notice should be in heir flowering quarters in October, as this will enable them to become established before the hard rosty weather is experienced.

In some gardens it may be more convenient to pot up the required number of pieces that the old plants yield when broken up as I have described. This may be done forthwith, and in the case of some of the choicer plants of the gold-laced kinds t is advisable. Use soil made up of two parts loam, one part embracing equal quantities of leaf-mould, thoroughly well-decayed manure and coarse silver sand, all well mixed together. After potting, stand the plants in a shady frame until October, after which period transfer them to a cold frame with a warm aspect. Do not overwater; just keep the soil moist, except when coming into flower, and then water freely. Fig. 4 shows a plant just potted up as described. D. B. CRANE.

VIOLETS.

PREPARING THE PLANTS FOR FRAMES.

IF we intend to force bulbs and plants in hot-houses, we generally try to obtain the strongest specimens we can. The strongest plant is weakened by forcing, so we can readily understand how failures occur when weakly plants are employed for this purpose. As much, if not more, labour is required in the growing of weakly plants as strong ones, and, of course, the results are widely different. It may be asserted that, as Violets are grown in frames during the winter-time, they will be stronger on that account, and medium-strength plants will become very strong. This is not the case, however, and it is proved by the fact that those plants left in the open border throughout the winter grow stronger the following spring and summer than those specimens taken from frames in which they have grown during the winter-time. To strengthen plants for frames it is advisable to keep the runners constantly pinched off, also to maintain the leaves in a healthy condition by frequent syringings with clear water and occasionally with clear soot-water. Furthermore, judicious feeding will greatly benefit the plants and assist the swelling of the crowns at this season.

Planting in the Frames.—I think many cultivators defer the lifting and planting of the clumps in the frames too long. It is certainly an advantage to get the plants well rooted and established in their winter quarters before frosts come; therefore, I would prefer to do this work in August than September, and October is certainly too late a date. If good soil is placed on an old, spent hot-bed, it will be beneficial to the plants; but a newly constructed hot-bed is not absolutely necessary. Friable loam and a small quantity of sweet leaf-soil should be placed in the frame to a depth of at least 1 foot. The surface of the bed should be within 9 inches of the glass lights; it will sink down as time passes, but it is essential to success that the leaves of the plants almost touch the glass. Make the soil firm around the roots and give a thorough watering. Keep the lights almost closed for a few days after the planting, shade slightly and syringe daily. Then take off the lights and leave the plants fully exposed until the first frost comes. Always water carefully and maintain a steady, healthy growth. The small-leaved varieties may be planted 1 foot apart, but the large-leaved ones should be given 3 inches more space each way. SHAMROCK.

LIFTING AND STORING SHALLOTS.

MANY bulbs are lifted and exhibited during August and September, and the general lifting and storing takes place at that time. There is a right way to harvest these bulbs. Directly the tops have fallen over and become partially yellow, the bulbs must be lifted, as at this stage they have not much hold of the soil and readily part from it; but there must not be any violent pulling. If this is necessary, leave the bulbs to mature more. Having gathered the Shallots carefully, spread them out thinly on mats or empty sacks in a shed or cool frame if the weather is unfavourable; but if it is dry, spread out the bulbs on mats in the open air, but not fully exposed to the sunshine. The sun, if it shone direct upon the bulbs, would cause some shrivelling, so partial shade is advisable. Turn over the Shallots occasionally until they are dry and crisp and the outer scales stand out and crackle when handled. At this stage the bulbs will be in excellent condition for storing. Drawers, cupboards, and shelves in cool, dry, but frost-proof sheds are all suitable positions for them. No violent trimming of the tops or the roots must be done; if the loose portions are removed it will be all that is required. B.

THE TOWN GARDEN.

ROSES.—Up to the moment of writing the season has probably been the most unfavourable experienced for these flowers for many years past, the largest exhibitors, professional and amateur alike, having been greatly handicapped in their endeavours to maintain either their good name or to display that high quality of flowers which is expected at their hands. Not only have the continued rains had a most damaging effect upon the flowers, but equally so the sunless days and cold nights, frequently approximating to the drear and chill of November-time, have made their mark upon the plants, which in numerous instances are already disfigured by mildew. The great aim of the gardener, therefore, at such a time should be to preserve as much as is possible the foliage of his plants, and in this way do his best to obtain good autumn flowers. By syringing, not too late in the afternoon, any plants or varieties that are prone to mildew with a mixture of sulphur and soft soap, some of the worst effects of the mildew may be prevented, otherwise there is a great possibility, should the wet and cold continue, of the later flowers being also spoiled.

TOMATOES UNDER GLASS.—These, so far, have required very careful treatment, and any attempt to close the greenhouse ventilators for the sake of warmth will have been attended by mildew and other diseases. A close, stuffy atmosphere is at all times highly detrimental to this crop, and the essential atmospheric buoyancy of the greenhouse has only been rendered possible by a free circulation of heat in the hot-water pipes. This, in conjunction with that "crack of air" so often referred to in conversational gardening, will do much to keep the internal conditions of the house in order. Water at the roots at such times should only be sparingly given, the amount depending largely upon local conditions and circumstances.

TUFTED PANSIES.—Where new stock of these is required, the plants, having been previously cut down and either earthed up or mulched, should now be encouraged to make fresh shoots for purposes of propagation. The older tufts ought, by now, to be showing abundance of shoots of about 2 inches in length, and where it is not convenient to at once detach these shoots, a little further earthing up of them will but strengthen their root action. At the earliest moment, however, these freshly rooted shoots should be removed and transferred to a bed or border of prepared soil, one having a north or north-west exposure for preference.

ROOM FERNS.—There are certain seasons of the year when flowering plants are seen to far greater advantage in the garden than in the home, and at such a time, with the garden assuming its gayest garb, the refreshing beauty of foliage plant or Fern in the sitting-room has a charm of its own. Quite one of the best Ferns for the purpose, because of its hardy enduring character and free growth, is Adiantum Capillus-veneris, and which, if liberally treated, is capable of good service. For years past preference has been given to the above-named, and to some of the good forms of Polystichum angulare for fireplaces and dark corners in rooms in lieu of the incongruously coloured screens that are frequently used. In such circumstances there is a freshness and beauty about the living examples that is decidedly good, to which, in times of great heat, may be added a restfulness and change as welcome as it is desirable. The dark greenery of Asparagus plumosus is likewise good for the purpose we have in view.

DOUBLE-FLOWERED ROCKETS.—These have ever been among the most prized of old-fashioned hardy

4.—A PROMISING DIVIDED PIECE PLACED IN A POT. THIS METHOD IS USEFUL WHERE ONLY A FEW PLANTS ARE REQUIRED.

herbaceous plants, and if less frequently seen in Southern than in Northern England, are still worthy of intelligent care, because of the flowers which are both fragrant and early. At the present time the old plants should have the flower-spike removed and, by encouraging fresh growth from the base, propagation by means of cuttings or division will be possible at a later date. These Rockets are found in white and purplish flowered forms, the plants being longest-lived in soils of a rather heavy nature. E. H. JENKINS.

THE KITCHEN GARDEN.

CABBAGES FOR SPRING.

THE amateur does not always get the best early Cabbages, and even now, the middle of July, my neighbours are cutting what are termed their early spring supplies, the heads being coarse, with huge, flabby leaves. The trials of early Cabbages undertaken by the committee of the National Vegetable Society should in a great measure help the amateur who has only a limited space and requires the earliest Cabbages available. I fear there will be some difficulty in getting the facts or trials brought to the knowledge of those most interested, as in country districts the small amateur plants and does not sow, and the result is as I have described; there is much loss of time and space, and the results are unsatisfactory. On the other hand, it is an easy matter for the amateur to sow a little seed, and by so doing get much better results. This is a point I would strongly urge, as the results would be vastly superior. The Cabbage is an important vegetable in March, April and May, and there is no difficulty whatever in getting a crop if the seed is sown during the next few weeks of an early, small and reliable variety. There are some very good early reliable Cabbages.

VARIETIES.

I am placing much importance on size and earliness; the last-named should receive the first consideration. Quality is also a strong point. For the amateur I think a small or medium early variety, with few outer leaves and a distinctly mild flavour, should be the one selected, a variety that forms a solid heart, is very early, and not wasteful. Such a Cabbage requires less space, shows little or no inclination to bolt, and the small hearting kinds are delicious; they come in at a time when they can be almost termed a delicacy. These small early Cabbages are less influenced by changes of weather, and they occupy a small space compared to the huge, worthless varieties I have alluded to, which, in my opinion, are more adapted for cattle on the field than in the garden. Sutton's Harbinger is the earliest Cabbage grown; it is small, very compact and of excellent quality—an ideal early variety. Even last January some of the heads of this sort were fit for use. Another equally good variety is Sutton's April, but at times it is ready in March. I have frequently cut it in the middle of the month from sowings made the middle of July. It is a good, small Cabbage, larger than Harbinger, but an ideal amateur's variety. Sutton's Flower of Spring, a medium-sized form, early and equally reliable, is most valuable; this closely follows the April, and may be had fit for the table early in April. It is a fine spring Cabbage. Of smaller kinds Favourite and Little Gem are excellent, also Veitch's Earliest of All and Veitch's Matchless, both small, with no waste, early and reliable. Of older and good forms Wheeler's Imperial is excellent, a most reliable, small, early variety. Carter's Early Heartwell is a splendid addition to the early Cabbages. Sown early in August it is ready in March. This may be classed as one of the best of the newer varieties.

SOWING.

Probably the date of sowing is almost as important as the variety if earliness is the cardinal point. This work requires some thought. For the early, small varieties in a large garden I would advise two sowings, one late in July and another early in August; but I am writing from an amateur's view, and here one sowing must suffice. Sow thinly in good soil from August 1 to August 10, according to the locality, and plant as soon as the plants are large enough. This sowing of any of the improved early kinds named above should give good heads in March and April. It is almost useless to sow early and leave the seedlings too long in the seed-bed. Another point is to plant in well-prepared land, deeply dug. Avoid huge quantities of rank manure, and plant firmly. These small varieties require only 18 inches between the rows, or even less, and half that distance between the plants. G. WYTHES.

NEW PLANTS.

SWEET PEA IRIS.—A pretty variety of salmon and apricot colouring. From Mr. C. Breadmore, Winchester.

Fuchsia Sylvia.—The double flowers are exceptionally deep and long, the corolla white and the sepals deep scarlet. From Messrs. James Veitch and Sons, Limited, Chelsea.

Sweet Pea Mrs. F. A. Wellesley.—A large-flowered variety of nearly pure white colouring. The accompanying foliage gave the impression that the plant had been much fed up. Shown by Mr. F. A. Wellesley, Woking.

Astilbe Arendsii Salmon Queen.—A distinct variety of pale salmon hue and fine free habit of flowering.

Astilbe Arendsii Venus.—This is of rosy colouring and quite distinct from others that have preceded it. These were exhibited in fine plants by M. George Arends, Ronsdorf, Germany.

Rosa multiflora Flame.—A free-flowering rambler kind of rosy crimson colouring, the plants being a mass of blooms. From Mr. Charles Turner, Slough.

Sweet Pea Elfrida Pearson.—A large and beautiful-flowered variety of varying degrees of pink, with pinky white shading. From Messrs. Pearson and Sons, Lowdham.

Senecio glastifolius variety.—This might easily have been mistaken for a Cosmos, either by its form or colour. The flower-heads are 1½ inches across and of rose magenta hue. Shown by the Hon. Vicary Gibbs, Elstree.

Cosmos Rose Queen.—A very handsome variety with good descriptive name. The variety is said to be an early flowering one, hence its greater value.

Sweet Pea Earl Spencer.—The dominant colour shade is orange scarlet in a particularly showy and good variety.

Sweet Pea Marion Cuthbertson.—A pale old rose variety of much merit and charm.

Calendula Sulphur Queen.—We believe the award in this instance was given to the strain, which is a double-flowered one of much excellence.

Gypsophila Carminea.—For all practical purposes this may be accepted as a rosy pink-flowered form of the G. elegans type. This set of five novelties came from Messrs. Dobbie and Co., Edinburgh.

Carnation Mrs. Robert Berkeley.—A border variety of moderate size and proportions and of pale pink colouring. Shown by Mr. James Douglas, Great Bookham, Surrey.

The fourteen novelties above-named came before the floral committee of the Royal Horticultural Society on the 19th inst., when each received an award of merit.

Cattleya Warscewiczii Low's variety.—A magnificent example of this fine variety was shown and much admired. The sepals and petals are of rosy purple colouring, the handsome lip of rich dark crimson save for almost finger-print blotches of yellow at right and left near the throat. This grand variety came from Lieutenant-Colonel Sir George Holford, K.C.V.O., Tetbury, Gloucestershire. First-class certificate.

Cattleya o'brieniana alba.—The exhibited plant of this chaste and rare form carried only a solitary flower, which was the admiration of a large number. The opaque-looking flower gave the impression of great solidity, and, save for the merest suspicion of a creamy tint on the lip, is wholly white. Exhibited by Messrs. Stuart Low and Co., Bush Hill Park, Enfield. First-class certificate.

Oncidium Sanderæ.—A distinct and pretty plant combining the leaf character of O. lanceanum with the tall scapes and somewhat the flowers of O. Papilio, the latter being yellow, copiously blotched with chocolate. From Messrs. Sander and Sons, St. Albans. Award of merit.

Cattleya Artemis (C. Iris × C. gaskelliana alba).—The sepals and petals of this beautiful form are of pink colour, the margin of the lip much tassellated and waved, the frontal lobe broadly set with orange colour. From Lieutenant-Colonel Sir George Holford, K.C.V.O. Award of merit.

Pescatorea Camellosa.—Sepals and petals of a yellow colour, lip white, the arching crest-like portion being marked by several brownish crimson lines. From Messrs. Charlesworth and Co., Haywards Heath. Award of merit.

The foregoing new Orchids were shown before the Orchid committee of the Royal Horticultural Society on the 19th inst., when the awards were made.

BOOKS.

AN IMPORTANT ROSE BOOK.

"THE GENUS ROSA."

IT is a source of great pleasure and interest to rosarians and book-lovers generally that Miss Willmott's addition to Rose literature is on the eve of publication. We have seen Mr. Alfred Parsons's drawings, and they are exquisite and faithful representations of the species and forms portrayed. No book on Roses has aroused greater interest than this, which will become of great value in the future. As a guide to the extent of the work and its historical value, the following kinds are illustrated by means of coloured plates: R. persica Michx., R. Hardii Cels freres, R. arvensis Huds., R. sempervirens L., R. moschata var., R. m. Miller, R. m. var. nepalensis Lindl., R. m. var. nasturana Christ., R. m. var. abyssinica Rehder, R. Dupontii Déségl., R. phœnicea Boiss., R. anemonæflora Lindl., R. watsoniana Crépin, R. multiflora Thunb., R. m. var. platyphylla Thory, R. wichuraiana Crépin, R. setigera Michx., R. stylosa Desv., R. Banksiæ R. Br., R. B. var. lutea, R. Collettii Crépin, R. fortuniana Lindl., R. microcarpa Lindl., R. lævigata Michx., R. l. × chinensis, R. involucrata Roxb., R. bracteata Wendl., R. microphylla Lindl., R. cinnamomea L., R. macrophylla Lindl., R. Prattii Hemsl., R. sericea Lindl., R. laxa Retz., R. fedtschenkoana Regel, R. beggeriana Schrenk., R. elymaitica Boiss., R. rugosa Thunb., R. r. var. calocarpa André, R. r. × blanda, R. Iwara Siebold, R. carolina L., R. virginiana Miller (R. lucida Ehrh.), R. humilis Marsh, R. h. var. grandiflora, R. nitida Willd., R. foliolosa Nutt., R. gymnocarpa Nutt., R. californica C. and S., R. pisocarpa A. Gray, R. nutkana Presl., R. Woodsii Lindl., R. fœtida Herrm. (lutea Miller), R. f. var. bicolor, R. hemisphærica Herrm., R. xanthina Lindl., R. spinosissima var. hispida Koehne, R. s. L., R. s. var. altaica Rehd., R. s. var. myriacantha Koehne, R. Malyi Kerner, R. involuta Smith, R. i. var. Sabini Woods, R. i. var. Wilsoni Baker, R. hibernica Sm., R. webbiana Wall, R. pendulina L., R. acicularis Lindl., R. a. var. nipponensis Crépin, R. blanda Ait., R. b. var. arkansana Porter, R. b. var. willmottiana Baker, R. minutifolia Engelm., R. Stanwell Perpetual

lort., R. gallica L., R. g. var. variegata, R. g. var. umila Jacq., R. polliniana Spreng., R. sancta lich., R. parvifolia Ehrh., R. centifolia L., R. rovincialis Miller, R. p. var. variegata, R. p. var. ullata, R. centifolia muscosa Seringe, R. c. var. ristata, R. pomponia DC., R. damascena Miller, . d. var. rubrotinata (Hebe's Lip), R. franco-rtana Muench., R. alba L., R. a. var. rubicunda loessig., R. chinensis Jacq., R. c. var. semper-orens Koehne, R. c. var. minima Rehder., R. c. ar. pseudo-indica Lindl., R. c. var. longifolia Villd., R. c. var. grandiflora (alba), R. Borbonica lorren, R. noisettiana Thory, R. Lheritieranea hory, R. ruga Lindl., R. gigantea Crépin, R. anina L., R. dumetorum Thuill., R. canina var. cilis Crépin, R. c. var. globosa Desv., R. coriifolia ries., R. rubrifolia Vill., R. macrantha Desp., . montana Chaix., R. Pouzini Tratt, R. pomifera errm., R. p. Rev. C. W. D.'s var., R. mollis nith, R. orientalis Dupont, R. tomentosa Smith, . hawrana Kmet., R. trachyphylla Rau., R. glanteria L., R. micrantha Sm., R. agrestis Savi., . inodora Fries., R. spinulifolia Dem., R. sicula ratt, R. Serafinii Viv., R. ferox M.B., R. asper-ma Godet, &c.

This magnificent work will appear in no fewer an twenty and not more than twenty-four parts, 1 guinea net each part. Each part will contain ve or six coloured plates, drawings of fruits in ack and white and descriptive letterpress. This ill consist of full historical, geographical and other etails of information collected by Miss Willmott om widely extended sources, together with chnical descriptions of each Rose in Latin and English, and a full synonymy. There will also an illustrated glossary and a comprehensive dex. The book will give an account, with illus-ations, of the most interesting species of the oses of the Old and New Worlds. Some natural ybrids, a few first crosses and several old garden oses have been included in order to complete the eatment of the subject. Mr. J. G. Baker, F.R.S., te Keeper of the Royal Herbarium at Kew, has en of especial service in drawing up the specific aracters. Professor Sargent of the Arnold rboretum, Harvard University, U.S.A., has read e whole book, which owes much to his criticism d advice. Colonel Prain, Director of the Royal ardens, Kew, has been so good as to read the al proofs. The drawings have been made by r. Alfred Parsons, A.R.A., principally from the ecimens growing in Miss Willmott's gardens at arley and Tresserve. They have been executed chromolithography by Mr. Griggs, who has ccessfully reproduced the character of the iginals. In many cases there have been over enty printings to one plate in order to render the tints. This edition will be limited, and ll not be reprinted.

Wood and Garden.*—This book has reached e eleventh edition, and few works relating to rdening deserve a wider circulation. It is a cord of one who not only has a love of gardening, t is a teacher, telling one in a way that may be derstood by all who are earnest in their wish real instruction the story of a life spent among wers, the most exquisite contrasts and associa-ns, and abounding in practical hints. Miss kyll writes with a full knowledge, and, apart m practical information conveyed, there is a erary charm that will appeal to those who have tle desire for gardening knowledge. It is a lightful book, and a companion in leisure hours take up and enjoy. There are no fewer than enty-one illustrations from photographs by the author. The following is a quotation with reference to the

"SEA HOLLY (ERYNGIUM),"

which in July attains its full richness of colouring. The author remarks that this family of July-flowering plants does "well on poor, sandy soils that have been deeply stirred. Of these the more generally useful is *E. oliverianum*, the *E. amethystinum* of nurserymen, but so named in error, the true plant being rare and scarcely known in gardens. The whole plant has an admirable structure of a dry and nervous quality, with a metallic colouring and dull lustre that are in strong contrast to softer types of vegetation. The black-coated roots go down straight and deep, and enable it to withstand almost any drought. Equalling it in beauty is *E. giganteum*, the Silver Thistle, of the same metallic texture, but whitish and almost silvery. This is a biennial, and should be sown every year. A more lowly plant, but hardly less beautiful, is the wild Sea Holly of our coasts (*E. maritimum*), with leaves almost blue, and a handsome tuft of flower nearly matching them in colour. It occurs on wind-blown sandhills, but is worth a place in any garden. It comes up rather late, but endures, apparently unchanged, except for bloom, throughout the late summer and autumn."

House and Garden.*—This is, if one may so express it, a sequel to "Wood and Garden," and has the same sweet charm, describing more the building of the house itself than the garden, with general observations of the greatest practical value. One of the most interesting chapters is on the making of Pot-Pourri; one of much value also is the chapter on "Plants for Poor Soils." The illustrations are many, and breathe the spirit of the country home. These books are issued now at a much cheaper price.

" "Wood and Garden: Notes and Thoughts, Practical l Critical, of a Working Amateur." By Gertrude Jekyll. ngmans, Green and Co.; price 6s. net.

* "House and Garden." By Gertrude Jekyll; price 6s. net. Third impression.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to the Editor, 20, Tavistock Street, Covent Garden, London, W.C.

CULINARY PEAS FROM SURREY.

Mr. T. Allen, The Gardens, Eversfield, Sutton, Surrey, sends us pods of Webb's Pioneer Pea. These for a first early are large and well filled, and the Peas of good colour and flavour. Mr. Allen writes: "I am sending you a few of Webb's Pioneer Peas, which belong to the first early section. The plants grow to about 3½ feet in height, and are wonderful croppers. The soil in which they have been grown is rather light."

STRAWBERRIES FROM PERTHSHIRE.

Mr. R. H. Cockburn, Gartmore Gardens, Gartmore, Perthshire, sends us some splendid fruits of the dark-coloured Strawberry Waterloo, which arrived in good condition and were of excellent flavour. Mr. Cockburn writes: "I am sending you a few Strawberries of the Waterloo variety for your table to let you see what we grow in West Perthshire. They have been grown on a south border in very light, shallow soil, with rocky subsoil. The soil is very stony, but we give all our Strawberries a heavy mulching of farmyard manure in the autumn after the runners have been hoed, but never dig between the plants. Waterloo is our best dessert Strawberry this dry season."

TWO RARE AND BEAUTIFUL SHRUBS.

Mr. W. A. Cook, who has charge of the beautiful gardens of Leonardslee, Horsham, sends flowering shoots of two beautiful shrubs — Desfontanea spinosa and Mitraria coccinea—each with scarlet flowers, and known to those who have gardens in the South. Mr. Cook writes: "These two rare and beautiful shrubs are now at their best, and both are in the alpine garden, though we have several of the former dotted about the grounds."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Primula cockburniana (*Mrs. Nicholl*).—The general experience with such species of Primula as divide freely and well is that seedlings give much better results, and this is the method of increase we advise you to follow with the above. There are certain species of Primula well known as of perennial duration, yet whose subsequent behaviour never warrant their being treated as perennials. On the other hand, the seedlings possess a vigour usually unknown otherwise, to say nothing of the greater increase of stock by these means as compared to division of the rootstock. When division is desired, this is always best performed some little time after flowering, and there would be quite time to ripen the seeds before attempting it.

Storing Tulips (*C. L.*). — You ask for "directions for the best way of storing Tulips from one year to another," and we are not sure whether we understand your requirements. If you wish to keep the bulbs a whole year or more out of the earth, we fear that such treated bulbs are foredoomed to failure. You speak, too, of "how to keep them through the winter," and our answer is to plant them early in October, inasmuch as these things cannot with impunity be kept all the winter out of the ground. To get the best results from Tulips the bulbs should be lifted and dried in July, placing them thinly in boxes in an open shed or outhouse, and replant in September or October. Occasionally, for special purposes and for exhibition over a long period, the bulbs are kept in the dry state till the end of the year, or even later; but as there is a distinct loss of stature, and not infrequently of stock resulting, we do not recommend it for general adoption, the losses being out of all proportion to the gains. To keep the bulbs for these purposes they must be very dry and very cool.

Disease in Nemesias and branching Larkspurs (*Aber*).—We were unable to find the pest which is damaging the plant. It is something at the root just where it enters the ground apparently, and we suggest that you should examine the plants after dark. Probably millipedes may be the culprits, and these may be captured by means of pieces of Potato sunk in the ground and examined at frequent intervals to kill those trapped.

Grass unsatisfactory (*D. M.*).—You had better try a dressing of Lawn Sand to get rid of the weeds. There are several reliable preparations on the market, which may be obtained, with directions for use, from most seedsmen, or you may prepare a mixture by using sixty-five parts of ammonium sulphate and thirty-five parts of fine sand, well mixed together and sown thinly over the lawn almost at any time. The grass may turn brown a little to commence with, but it will soon recover.

Diseased White Lilies (*L. E. C.*).—The Lilies are affected by the well-known Lily disease, due to the fungus Botrytis cinerea, which apparently gains an entrance into the plant from the soil. You might try the effect of completely removing the top soil to the depth of about 3 inches, and replacing it with quite fresh soil which has been mixed with flowers of sulphur, or, better still, with soil which has been heated to the boiling point of water. This should be done about August, after the removal of all dead stems, &c., and before the new growths push up.

Water Lilies failing (*M. M.*).—The only reason we can assign with the information before us is that the covering depth of the water has been insufficient and has tested the hardiness of the plants. Usually these Nymphæas are reliably hardy with 18 inches of water above them, and your district should be no exception. The fact that the plants flowered last season proved their strength at that time, while the failure since points to an insufficient depth of water, unless, indeed, there is disease at the root of which we have no knowledge. We advise that you examine the rhizomes to ascertain their condition. If these are sound, the failure may be due to insect life.

TREES AND SHRUBS.

Killing Holly trunks (*Swy*). — The trunks of the Hollies may be killed by removing a strip of bark, say, 3 inches in width, from just above the ground-level. Care must, of course, be taken to remove the whole of the bark within the space named, so that no connection can possibly be maintained. If the portion whence the bark has been removed is of too conspicuous a tint, it may be readily toned down by a paint made of clay and water. This may not at first kill the roots; but if care is taken to cut off any shoots that may make an appearance directly they are noticed, the roots from sheer weakness will soon lose their vitality. In order to kill a tree it is sometimes recommended to lay bare the main roots, bore holes in them with an augur, and then fill the said holes with salt. We, however, think that the removal of the bark would suit your purpose.

Rhododendrons not flowering (*Miss C. M. W.*). The non-flowering of your Rhododendrons was possibly caused by the fact that, being fresh planted, they devoted a good deal of their energy to the production of new wood rather than blossoms. As they are now established and making good shoots, it is quite probable that flower-buds will be formed and that you will have a good display next year. At all events, you can do nothing further, as any pruning will only serve to retard the production of blossoms.

Ampelopsis and Clematis montana (*E. M. Carpmael*).—It will not hurt your Ampelopsis to allow a plant of Clematis montana to grow among it. The only inconvenience you will experience will be in the pruning of the Ampelopsis. As a rule, this plant is pruned during winter, while the Clematis must not be pruned until the flowers are over in June. Consequently, you will either have to be very careful in pruning the Ampelopsis not to cut the shoots of the Clematis, or else leave the Ampelopsis and prune it with the Clematis in June. The latter is really the best plan. The Clematis may be cut fairly hard back each year.

THE GREENHOUSE.

Bougainvillea dropping its foliage (*W. P.*).—You give us no idea of the treatment to which your Bougainvillea has been subjected, and consequently we are very much handicapped in any attempt to explain its erratic behaviour. We presume that the plant referred to is Bougainvillea glaora or one of its forms, such as sanderiana. These Bougainvilleas will commence to flower in May, and continue till the end of the summer provided they are not kept too close and warm. We have seen them in August beautifully in flower in Hyde Park, and some well-flowered examples were very noticeable at the recent Holland House Show. Such being the case, we cannot imagine the plant remaining leafless throughout the greater part of the summer. There is a widespread idea that Bougainvillea glabra requires a considerable amount of heat, but it will succeed during the winter in a structure with a minimum temperature of 45°, and in summer it does not require any artificial heat; indeed, the more it is exposed to light, air and sunshine, so much the richer will be the colour of the bracts. The general treatment needed by Bougainvillea glabra may be thus summed up. After the flowering season is over, which in a cool house will not be till autumn is well advanced, the plant may be kept somewhat drier at the root in order to thoroughly ripen the wood. Throughout the winter it must be kept moderately dry, and at that season it will be practically leafless. Then in February, if any shoots are particularly straggling, they may be shortened back or any old and exhausted wood cut out. If the plant can then be put into a somewhat warmer structure, all the better, but this is by no means necessary. With an occasional syringing the plant will soon start into growth, when a dose of weak liquid manure now and then will be beneficial. With this treatment the plant will grow and flower profusely and retain its foliage in the normal manner. Repotting, when necessary, should be done in early spring before growth recommences.

Plants to flower in greenhouse (*W. R.*). — In a greenhouse kept during the winter at a temperature of 50° to 60° there are a great many subjects that will flower at that season. For all this, there are but few which can be propagated from cuttings now, and if grown on will flower well in the winter. Of such the following may be mentioned, and even these cannot be expected to attain a large size in the time: Erlangea tomentosa, an Ageratum-like plant with heads of lavender-coloured flowers; Eupatorium petiolare, somewhat in the same way with white blossoms; Moschosma riparium, a South African Labiate with tiny greyish white flowers borne in spikes; Salvia splendens, which is, however, more of an autumn than a winter flowerer; Justicia speciosa, with purplish blossoms; and Eranthemum pulchellum, whose pretty blue flowers are always admired. A selection of winter-flowering plants for such a structure would include Carnations, propagated from cuttings quite early in the year; Zonal Pelargoniums, grown in pots and stood outside exposed to sun and air during the summer; Primula sinensis, sown in May or June; Arum Lilies, potted the end of July and grown on freely out of doors till nights get cold; Christmas Pink Stock, sown in April; Chrysanthemums, late flowering, struck in the spring; Begonia Gloire de Lorraine, struck in the spring; Primula obconica, sown early in the year; Cyclamen, sown eighteen months previously; Bouvardias, struck in the spring; Abutilon Boule de Neige, of which old plants flower freely; Coleus thyrsoideus, whose cobalt blue flowers are always admired, struck in the spring; and Jasminum primulinum, which in many places is a failure out of doors, flowers beautifully in winter in the greenhouse. Of bulbs, Roman Hyacinths and Paper-White Narcissi will flower under such conditions provided they are potted early in September. The Winter Heath (Erica hyemalis), with E. gracilis, E. melanthera, Epacris of sorts and the yellow-flowered Coronilla glauca, are all hard-wooded subjects that bloom in the winter.

ROSE GARDEN.

Roses to name (*Mrs. D.*).—The single white Rose is Rosa sinica, known also as the Cherokee Rose, Rosa lævigata and Camellia du Japon. It is a delightful variety of very vigorous growth, and it will soon cover a large wall space with its exquisite shiny foliage and snow white single flowers. The small pink Rose is Rosa lucida plena, which has evidently been budded on to R. sinica, as usually this latter is raised from cuttings. R. sinica grows particularly well in your beautiful county, and when well developed is a lovely object. There is a grand hybrid of this variety named R. hybrida Anemone, which has large single flowers of a lovely silvery pink colour. It is a sort well worthy of a place in any collection, and will grow freely as a pillar Rose or upon an arch.

Red rust on Roses (*J. C., Dundee*). — The growth you send us is badly affected with red rust or orange fungus, and you must attend to it at once. It frequently happens that this fungoid pest is brought into the garden from the wild Briars of the hedgerows. W it has previously existed, the plants should be sprave early spring, just when the leaves are expanding, Woburn Bordeaux Paste, and when the rust appear the wood treat with a solution of methylated spirit water, equal parts, rubbed in with a piece of sponge. W the growth is advanced, such as it is now, it will be be spray with Cupram, but you must take care that it is put into vessels of iron, tin or zinc. Spray with a sprayer, of which there are several on the market, and that the spray is directed beneath and above the foli All leaves on the soil should be gathered up and bur If you continue these sprayings and are also careful spring to burn any leaves and the surface soil from aro the plants badly attacked, you will in time stamp it Cupram may be obtained through horticultural sundr men, or from Messrs. Voss and Co., Limited, Milwall, Lon E. When it is desired to spray Roses as a preven of red rust, caterpillars and green fly, a mixture of Wob Bordeaux Paste, arsenate of lead and Woburn Tob Extract can be highly recommended.

FRUIT GARDEN.

Espalier Gooseberry trees (*H. D.*). Seeing that your bush trees are bearing so fin would it not be well to "leave well alone," and plant next autumn as many young trees as may require with single stems only and grow th as single (or you can have double, if you li cordons? We think you would find this m satisfactory than trying to convert your bus into espaliers. These cordon Gooseberry trees to be bought very cheaply; but if you prefer propagate your own, cuttings placed in the grou this autumn would be fit to plant out the follow autumn.

Peach stones splitting (*C. P.*).—Opini differ as to the cause of splitting of Peach sto One thing respecting this disease we think is certa namely, that some varieties are more subject its attack than others, the variety you ment being among them. Some will have it t it is the larva of a beetle which feeds on stones and thus causes the disease, but we h never been able to discover their presence stones so affected. Others contend that it due to the imperfect fertilisation of the flow resulting in imperfect development and dise of the stone. We are inclined to agree w this conclusion, and would recommend you at next flowering-time to take special pains to h the tree to make a perfect set by artificially ferti ing the flowers in the usual way. Having a h of bees near is the most effectual way.

Muscat Grapes affected by sulphur fun (*Enquirer*).—The foliage of your Vine and the yo Grapes at the stage of growth they were in at the tim fumigation were too tender to stand the fumes evide It will be a lesson to you in the future not to apply the strong again so early in the season. We only hope that red spider has been effectively destroyed. We do not t that the damage to your Grapes will turn out to b serious as you fear. It is lucky the accident happ before thinning had taken place and not after. Now careful thinning—cutting out only damaged berries at first thinning—you will find, we think, when the se thinning takes place that there will be as many undama berries left as are wanted to form good bunches and ample crop. We cannot find anything amiss with berries of the small bunch further than there are a blackened ones and that the bunches are less forw We do not think there is any reason to anticipate that will follow so long as all the damaged berries can be cut without leaving the bunches too thin.

Strawberries deformed and others setting (*Constant Reader*).—The cause of the defor in the fruit is due to the imperfect fertilisation of bloom. The cause of the other flowers proving blin not setting is because they were not fertilised at all. Be fertilisation can take place there must be pollen on anthers of the flowers, and it is equally true that this must come in contact with the stigma of the bloom fertilisation can take place. Seeing that your g is unheated, the air of the house at the time the plants in bloom was too cold and too moist, and the p in consequence would also be moist, and could n disbursed and made to come in contact with the st or pistil of the flower; hence barrenness. We think too soon to introduce Strawberries for forcing into a greenhouse in January; better results will follow by defer to do so for a month. When your plants are in bloom a early in the year, you will find it a great help to se the flowers if you will go over each one every day while are dry with a camel-hair pencil or a rabbit's tail and over the stigma of each flower and the pollen attending to this we do not think you will be amiss appointed. It is an excellent plan to change your s from other soil and other districts occasionally.

THE GARDEN.

No. 2020—Vol. LXXIV. August 6, 1910.

CONTENTS.

Figs Against Walls 385
Notes of the Week
Forthcoming events 386
The Saltaire Rose Show 386
Correspondence
Summer-flowering shrubs 386
Rose Mrs. J. Laing 386
School gardening at Corwen Council School 387
Gardening of the Week
For the South and [illegible] 387
For the North and North Midlands.. 387
Flower Garden
Daffodil notes .. 388
Kitchen Garden
Notes on vegetables 388
Greenhouse
Malmaison Carnations at Hall Barn 389
An old-fashioned greenhouse plant 389
Generea and their culture 389
Trees and Shrubs
Spiræa discolor .. 389
Fern Garden
The Hart's-tongue Fern 390
Editor's Table 390
Rose Garden
A Rose garden in Buckinghamshire 390
The new hybrid wichuraiana Diabolo 391
Forming a Rose pergola 391
Hedge of Japanese Roses 391
Gardening for Beginners
Garden work week by week 392
The Forget-me-not as a pot plant .. 392
Scented-leaved Pelargoniums .. 393
The Town Garden.. 393
Answers to Correspondents
Flower garden .. 394
Fruit garden 394
Rose garden 395
Kitchen garden .. 395
Miscellaneous .. 395
Societies 396

ILLUSTRATIONS.

Boys at work in the Corwen Council School garden.. 387
Malmaison Carnations at Hall Barn, Beaconsfield .. 389
Rose pergola in a Buckinghamshire garden 390
A bed of the Hybrid Tea Rose Caroline Testout .. 391
The Forget-me-not in a pot 392
Scented-leaved Geraniums 393

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

FIGS AGAINST WALLS.

A Wholesome Fruit Insufficiently Grown.

IT is only in a few gardens that we find the Fig really fruitful; indeed, we may say rarely, wherever its cultivation in the open is followed. Certainly it is not everyone who has a liking for the fruit; therefore trees are not planted generally, but few fruits are more luscious when fully matured. In favoured localities on the South Coast, especially in the Worthing district, trees growing in the open, both bush and standard, seldom fail to bear a crop. Many of the trees are of great age and size, but these produce the heaviest crops, though the individual fruit may not be quite so large as those from younger trees. This is easily accounted for. The old trees make very little wood, and this, being very short-jointed, has a better chance of becoming thoroughly matured in autumn. Properly matured wood is most important with all fruit trees, but especially so with the Fig. Another point, perhaps, that assists old trees or those not growing in a deep, rich soil is that the foliage is much smaller than on young and vigorous ones, and it is noticed that the leaves turn yellow and fall earlier than on the latter, while during summer the wood is more exposed to the sun than when the leaves are very large. That

The Fig Delights in Hot, Dry Weather

was most noticeable during those seasons of drought a few years ago. When it was not possible to water them—indeed, water was frequently too scarce to do so—very large trees appeared to revel in the heat and dryness, and the same heavy crops appeared for several seasons until a dull, wet autumn set in, when the fruit the following season was very scarce.

There is always something interesting in a Fig tree in the garden, especially when under proper treatment it is made fruitful. Those who have not been successful in this may not have been quite right in the treatment given. A restricted root-run is necessary where the soil is naturally good; therefore frequent attention should be paid to the roots in keeping them within bounds. It is surprising how well the Fig thrives in a very narrow border where the roots are confined, or on very shallow soil overlying chalk or gravel. No matter how small or poor the rooting medium may prove, the trees can be maintained in the highest state of fertility by using a rich compost round the stems. This, of course, is withheld during a wet season, when growth generally is too gross. Trees growing under such conditions are kept well in hand, as each season the previous mulching can be forked away, replacing it with fresh, which answers the purpose better than adding to the old, and thus eventually forming a rich and extended border. Moreover, trees whose roots are cramped for want of room and natural food can always be assisted when a crop of fruit is swelling by several soakings of manure-water, or about July a thickness of cow-manure may be packed round the stems and followed by a good watering. The Fig readily emits fine feeding roots from the old stem when a portion of this is covered with good compost or manure; therefore the grower can always produce plenty of roots in this way, which is not possible or practical with other fruit trees. Old mortar, fresh lumpy loam and cow-manure form the best mulching for the Fig to root into.

Having thus mastered the proper management of the roots, top growth requires equal attention. This also should be restricted, as vigorous shoots 18 inches or more in length never ripen properly, therefore fail to produce fruit; indeed, the tips of the latter are so green and soft that only a few degrees of frost are necessary to kill them back several inches. Unless it is required to fill in a gap or extend a small tree, early stopping of the shoots should be followed. This is generally done at the third or fourth leaf. The shoots so operated upon commence to thicken and harden at once, and early maturity is thus ensured.

When the size of a Fig leaf is taken into consideration, it should show how necessary it is to keep the shoots thinly disposed, especially with trees trained to walls. This is frequently overlooked when the bare branches are being nailed to the brickwork. A mass of such large leaves overlapping each other form a dense shade to both fruit and the young wood, proving detrimental to each. The different shoots should be so arranged that there would be little difficulty in finding the fruit, although, of course, it never stands out so prominently as the Peach, Nectarine, or Apricot.

Although we have said that Fig trees revel in heat and drought, we had in our mind trees growing in the open; but when situated against a hot wall several soakings during the season are necessary, while

after very hot days the foliage is greatly refreshed and kept free from red spider by syringing in the cool of the evening. We have found Brunswick and Black Ischia most suitable for bushes and standards, and the well-known Brown Turkey for walls.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 9.—Weston-super-Mare Flower Show.

August 10.—Chippenham Horticultural Show. Exmouth Flower Show (two days).

August 11. — Malmesbury Flower Show. Taunton Flower Show.

August 16. — Royal Horticultural Society's Meeting, Horticultural Hall, Westminster.

August 17 —Shrewsbury Floral Fete (two days)

The Saltaire Rose Show.—This show was a great success. It was held in the Saltaire Park, and proved more interesting even than its predecessors. The competition was very keen, and this is not surprising when one remembers the value of the prizes offered for competition. The 50-guinea challenge Rose bowl was won outright this time, the firm having been successful on three previous occasions, and the flowers shown by the prize-winners, Messrs. Alex. Dickson of Newtownards, were superb. In addition to this the society's gold medal and the National Rose Society's silver medal also went to this display. In the chief class, open to all amateurs, the most successful were Mr. Conway Jones (who won the society's silver Rose bowl and the silver medal), Mr. Hugh Dickson, Messrs. D. Prior and Sons, The King's Acre Nurseries, the Rev. J. H. Pemberton, Mr. H. V. Machin, Mr. G. C. Waud and Sir R. L. Baker. The Sweet Peas made a delightful display, and the first prize, a special silver cup of the value of 5 guineas, to be won two years in succession, or three years in all, before it becomes the property of the exhibitor, and offered for twelve bunches, was won by Mr. S. Shackleton. We wish space allowed a more detailed report. The gate receipts amounted to £226 19s., to which amount has to be added £150 in subscriptions. As an estimate of the revenue account from all sources will probably amount to £500, one must congratulate the officials on so great an achievement, as the society has only been in existence eight years. The greatest credit is due to the hon. secretary, Mr. E. Wright of Saltaire, for his praiseworthy efforts and to the committee generally. We wish the Saltaire Rose Society still greater success in the future.

International Horticultural Exhibition, 1912.—The executive committee formed for the purpose of organising and holding a great International horticultural exhibition in London in the spring of 1912 is composed of the following members: J. Gurney Fowler, Esq., J.P. (chairman), Sir Jeremiah Colman, Bart., J.P., V.M.H. (hon. treasurer), Mr. E. Beckett, V.M.H., Mr. E. A. Bowles, M.A., F.L.S., Mr. W. A. Bilney, J.P., Mr. W. Cuthbertson, J.P., Mr. C. R. Fielder, Mr. John Green, Mr. J. Hudson, V.M.H., Mr. F. J. Hanbury, F.L.S., Mr. A. G. Jackman, Mr. A. Kingsmill, Mr. H. B. May, Mr. C. G. A. Nix, Mr. George Paul, V.M.H., Mr. C. Harman Payne, Mr. R. Hooper Pearson, Sir Albert Kaye Rollit, J.P., LL.D., D.C.L., Litt.D., Mr. T. A. H. Rivers, Mr. N. N. Sherwood, V.M.H., Mr. A. W. Sutton, V.M.H., F.L.S., Mr. A. Turner, Mr. H. J. Veitch, V.M.H., F.L.S., Mr. R. W. Wallace and the Rev. W. Wilks, M.A. The hon. secretary is Mr. Edward White (of Messrs. Milner, Son and White), 7, Victoria Street, Westminster, S.W. This committee is now holding frequent meetings and doing everything possible to push forward the necessary arrangements. Appeals will shortly be distributed setting forth the privileges the committee propose to grant to subscribers and guarantors. The exhibition will be held in May, and it will be open to the public on eight weekdays. It is proposed that the prices of admission shall vary between 2 guineas on the opening day and 1s. on the later days of the exhibition. Although in no way responsible for the exhibition, the Royal Horticultural Society is extending its general approval to the scheme. This society has not only agreed to forego the holding of the usual Temple Flower Show for that year, but it has also contributed a sum of £1,000 towards the International exhibition, and, in addition, is prepared to assist generously in the formation of a guarantee fund. An ideal site for the exhibition will probably be secured in the South-west of London. A preliminary schedule will soon be ready for prospective exhibitors, as the schedule committee is meeting frequently and sitting long for the purpose of getting out an early edition. This first edition will not contain the money prizes for each class; its main purpose will be to acquaint exhibitors in England, the Colonies and foreign countries with the details of the classes included in this the most embracing schedule of horticultural exhibits ever compiled in this country. The amount of prize-money will very far exceed the sum awarded at the International Exhibition of 1866, when £1,600 was expended on prizes. Arrangements are being made for establishing territorial committees in the counties, and the secretaries of these committees will shortly be appointed. Already the committee has obtained the highest patronage for the International show, including Their Majesties the King and Queen and Their Royal Highnesses the Duke of Connaught, Prince and Princess Christian, Princess Louise and others.—R. HOOPER PEARSON, *Hon. Press Secretary.*

Carnations at Notts Horticultural Show.—An interesting feature of this exhibition was the magnificent display of Malmaison and other varieties of the Carnation by Mr. Allen Tatham of Nottingham, an amateur. For a bright and attractive group, with a wealth of varieties, the flowers of which were large, of exquisite shape and full of fragrance, he was awarded a special gold medal. The beautiful arrangement of the group reflected great credit on the exhibitor. The collection of Malmaisons, for which he obtained the silver cup, contained flowers of splendid quality and form. For another group of Malmaisons he was awarded a first prize, and also three other first prizes for cut blooms. The strength, colour and bloom of these exhibits were noticeable features. Mr. Tatham's show of Carnations was the best ever seen in Nottingham, and was all the more creditable to him as he is only an amateur.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Length of Sweet Pea flower-sprays.—It would be most interesting to growers of this delightful flower to know of the longest spray from base of stem to tip of flower that has been grown in the open in the British Isles. I have made enquiries from several reliable sources, but have never been able to find out anything definite on this point, except that one grower says 20 inches is the longest he has ever grown or known. In these gardens in 1907 we had Dora Breadmore 21½ inches. This year we have Elsie Herbert 23½ inches. This I am forwarding to verify my statement. Our next longest is 22 inches, same variety. Possibly this spray will go 23 inches in a day or so. Then we have Constance Oliver and Clara Curtis 19½ inches, John Ingman 19 inches, Etta Dyke 18½ inches, Tom Bolton 18 inches, and Mrs. Collier and Mrs. Henry Bell 17 inches. Considering that the rainfall in this district for the past three months is one of the lowest on record, and the fact that the plants have received only one soaking of water since they were planted, the length of stems is almost remarkable.—W. JOHNSON, *Broxmouth Park Gardens, Dunbar, N.B.*

[We remember seeing some sprays a few years ago that were just about 30 inches long. These were grown, we believe, by Mr. T. Jones of Ruabon. Such long stems are not, however, altogether desirable.—ED.]

Rose Mrs. J. Laing.—It seems superfluous now to be extolling the good qualities of this beautiful old favourite, but it is a question whether there is another variety more worthy of praise. It is such a consistent variety here, and is so useful for cutting purposes, that its culture has been considerably extended in recent years. For decorative work it is very hard to beat. Its lovely flowers are borne erect on stout stems of good length, and its foliage is always clean and fresh. Another quality it has, which is often lacking in many of the newer introductions, is that it is very fragrant, without which no variety is perfect. Unlike many other varieties which are grown here, it never suffers from severe frost. For show purposes, too, it is invaluable, as witnessed by the splendid stand with which Messrs. Harkness and Co. won the first prize for twelve Hybrid Perpetuals or Hybrid Teas at the recent Windsor Show. Other Roses which are extensively grown here are Caroline Testout, Gustav Grunerwald, Liberty, Richmond, Mme. Abel Chatenay, Ulrich Brunner, General Cotton, Kaiserin Augusta Victoria, Maman Cochet and Frau Karl Druschki.—H., *Frogmore.*

Primula pulverulenta.—With regard to Mr. James Binning's letter in THE GARDEN of July 16 on Primula pulverulenta, I find that out of a number a great many have six or seven whorls of flowers, and are well over 30 inches in height; one in particular has eight whorls and measures 43 inches from base to tip. The number of flowers in the whorls was six, eight, nine, nine, nine, eight, seven and six. Among Primula japonica in a similar situation I do not find any over 30 inches high or more than five whorls of flowers, though I think I had one last year 36 inches high. I think, too, that P. pulverulenta can stand a drier situation than P. japonica, and will therefore be more enduring in ordinary soil, where P. japonica very quickly dies out. The general appearance of the plant is more striking, the mealy stem being of great value in contrast to the deep crimson flowers. —R. H. W., *Bishopstone Rectory.*

Summer-flowering shrubs.—The notices of the beautiful summer-flowering shrub, Escallonia langleyensis, that have recently appeared in THE GARDEN (June 25, page 309, and July 16, page 351) will, it is hoped, lead to its extended cultivation, especially as it seems to lend itself equally to training on stakes, as shown in the photograph of the plant in Messrs. Veitch's Coombe Wood Nursery, or grown in a natural manner, as I recently saw it in Messrs. Robert Veitch's nursery at Exeter, where there is a fine, well-grown plant, the long, graceful, drooping branches of which, thickly covered with its deep rose pink flowers, formed a

very fine sight, especially when lit up by the western sun. For pergolas, as recommended by Messrs. R. Veitch, the plant seems specially adapted. The beauty of many of the summer-flowering shrubs, such as those mentioned in your leader of June 25, is almost an inducement for the owner of a moderate-sized garden to grow such plants alone, selecting those which flower consecutively from spring to autumn, and even after that prolong their season of beauty (if protected from birds) almost into the next flowering season, such, for instance, as the beautiful Cratægus Pyracantha var. Lælandii. With plenty of room the old Mock Orange (Philadelphus) is hard to beat, either in effect or usefulness, for cutting for indoor decoration. The smaller-growing varieties, however, with single or semi-double flowers, of which I saw several fine examples at Exeter, commend themselves to the owners of small gardens. The Exeter nurseries have always had a reputation for advancing the taste for ornamental shrubs, so it was not surprising to find a large number, not only of those hardy under the climatic conditions of other parts of England, but especially of those which flourish under the favoured conditions of Devon and Cornwall. The following were very attractive at the time of my visit: Ozothamnus rosmarinifolius, a handsome shrub belonging to the Compositeæ, bearing masses of sweet white flowers. Ononis fruticosa, a leguminous plant of very neat habit with a profusion of bright rose flowers, is a great ornament for the rock garden. A noticeable evergreen shrub from Natal is Alberta Magna, bearing red flowers and red-winged fruits; while Citrus trifoliata, a hardy shrub allied to the Orange, produces quantities of white flowers. A distinction is found in the spikes of rose-coloured flowers of Buddleia Colvillei, and another distinction in Ochna multiflora, a handsome plant of peculiar interest, bearing bright green leaves with yellow flowers, which are succeeded by succulent fruits or receptacles somewhat like a Strawberry in shape and similar in colour, upon which the black seed-like carpels, about the size of Peas, are placed. As this is a native of the West Coast of Africa, it is tender. These are only a few of the many shrubby plants that might well be grown in gardens where constant attention, professional or otherwise, cannot be given, but from which a great deal of pleasure can be obtained.—J.

School gardening at Corwen Council School.—I am sending you a photograph respecting the plots at the above school. One shows the lads working among their plots, and the other a group of the workers. The head-master, Mr. Anwyl, is to be seen in the centre of the group. Mr. Anwyl is a very keen amateur gardener, and takes a great interest in the lads' plots, also in his own garden, and understands the practical side of gardening more than the average amateur. When judging the plots I found them in every way excellent; the produce as regards quality was first-class and everything was carried out on the most practical lines—trenching, manuring, rotation of crops, thinning, &c., are all taught in this garden. Budding and grafting are going to be introduced, this branch being well understood by Mr. Anwyl. After the plots have been judged, the produce becomes the property of the workers, and liberal prizes are awarded for the best produce. I believe this is the only school where gardening is taught in this county, and the interest which is taken in the work is most encouraging to the committee and workers alike, and reflects the greatest credit and praise on all concerned.—J. S. Higgins, *Rug Gardens, Corwen, North Wales.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Hardy Fruits.

RASPBERRIES.—Immediately the fruiting season is over, the old fruiting canes should be removed. The work must be carefully accomplished, so that the young shoots are not damaged in any way. Sufficient of these must be left to fill up the allotted space, selecting the strongest for the next season's crop and tying them up to the supports. All others may be cut away close to the ground. Watering with liquid manure is beneficial, assisting the young growths in their development.

Loganberries.—These require similar treatment to Raspberries, that is, the old wood entirely cut out and the growths that have been made this season laid in their places. This fruit responds to liberal treatment; therefore plenty of nourishment should be afforded the plants during their growing season. A good top-dressing of manure should be given and plenty of liquid manure applied to the roots.

BOYS AT WORK IN THE CORWEN COUNCIL SCHOOL GARDEN, MONMOUTHSHIRE.

Peaches and Nectarines.—All growths should be kept tied in and the roots not allowed to get dry. Early varieties that are ripening must be looked over daily and the fruit stored in a dry, airy fruit-room, where it will keep for several days. Great care must be taken in picking Peaches, as it is a fruit so easily bruised.

Flower Garden.

Herbaceous Borders.—These will be soon looking very gay with Phloxes, Asters, Helianthuses and other plants. Various subjects will require supports. If Pea-sticks are used for the bushy-growing plants, the growths will sometimes get blown down, and when this occurs a few more sticks should be added. There is no better plan for supporting the above than by using Pea-sticks for the work. Placed in position early and the plants allowed to grow into them, a natural appearance is maintained. Late-flowering Gladioli will require a separate stake for each spike, using as neat a stake as possible for the work.

Summer Beds.—These beds ought now to be looking their best, and it is an excellent plan at this time to take a general survey of the bedding as a whole. One of the charms of gardening lies in having something different each season, and now is the time to decide on any alteration in the colour effect for next summer's display. A rough plan of the flower garden should be drawn and the required alterations marked, so that no error may occur.

Kitchen Garden.

Cucumbers.—Plants of these, if raised as advised earlier, should now be planted, assuming the house has been thoroughly cleansed and the heating material put in. After planting, a slight shading should be afforded, and frequent syringings will be necessary to keep the plants growing. A humid atmosphere must be maintained by damping the walls and floor of the house, and the evaporating pans must be kept filled. No fruit should be allowed to grow until the plants have made a fair amount of growth, and heavy cropping is not advised at any time. These plants will provide a supply till Christmas, and very often later.

Onions.—A good sowing of the Tripoli and Rocca varieties should now be made. The seed-bed must be thoroughly prepared by giving it a good dressing of soot and wood-ashes, well mixing it by forking the ground. Make it firm by treading and draw out drills 12 inches apart. The seed may be sown fairly thickly to allow some of the plants to be drawn for use when small. These Onions will remain where sown till February or March, when some may be planted out.

Late Broccoli.—Every opportunity must be taken advantage of to plant out the late varieties, such as Late Queen, Model, Leamington and Wilcove. Weak, thin plants should be thrown on one side and only sturdy ones planted. If these were transplanted as advised in an earlier calendar, they will be in good condition now.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Planting Daffodils.—While it may not be easy to secure new bulbs from the bulb merchants so early in the season, all the roots that were grown in pots will be in admirable condition for planting now. If these were well cared for after blooming, they will produce quite a good crop of flowers next season. If possible, select a fresh site for the Daffodil beds. If grown mainly for cut-flower purposes, the border from which Potatoes have just been lifted will be an ideal spot for them. Give no fresh manure, but a fair dressing of finely ground bones is very beneficial to the Daffodil. Plant so that the tops of the bulbs will be about 3 inches below the surface.

Daffodils in Grass.—It pays to purchase a bulb-planter when a number of bulbs have to be planted each season. Some years ago I bought one from Messrs. Barr, and it paid its cost the first autumn by saving labour. Not only can the work be done three times as fast as with a spade, but it is better done and the turf is practically uninjured. One man uses the planter, a boy drops a little fine soil and a bulb into each hole, another returns the pieces of turf, gives a slight tramp with the foot, and the work is finished. It is best to break off an inch or so from the bottom of each cube before returning to the hole. This prevents undue pressure on the bulbs when treading down the turf to the level.

Cold Frame.

Schizanthus.—This, one of our finest annuals—indeed, I may say the very finest for pot culture—may be had in bloom for nine months of the year, but I think that it is most useful in late spring and early summer. To ensure good plants for flowering well at that season, seed should be sown during

next week. Any light, open soil will do for raising the seedlings in. Scatter the seed thinly in pans or boxes, cover lightly and set in a frame. The seed usually germinates in a week or so. Immediately it shows through the soil, raise to near the glass, as the Schizanthus is easily spoiled if allowed to become drawn. When large enough to handle prick off into boxes, return to the frame, and in due course the plants will be fit for 3-inch pots, in which they should pass the winter.

Mignonette.—Sow this at the same time as the above, selecting a good variety like Machet, Covent Garden Favourite or Sutton's Giant. It takes longer to germinate than the Schizanthus, and should be pricked off into 3-inch pots, placing three or four little plants round the edge of each. A little lime rubbish should be mixed with the soil in which Mignonette is grown.

Lobelia.—Stock plants of this valuable edging plant must now be seen to. I find that by cutting close back any fresh plants growing in pots, or, failing these, some growing out of doors, a good number may be raised at little cost of time or space. After growth starts again, pull the plants to pieces and dibble into boxes of good fresh soil that is not too rich. Set in the frame and keep close and shaded for a few days. Afterwards give abundance of air and light until the end of September, when they are removed to a pit or house for the winter with a rather low temperature. Waverley Blue is one of the best varieties either for pots or bedding.

Kitchen Garden.

Onions.—In the later districts seed of some good hardy sort should be sown at once. I find that Trebon came through the last winter better than any other kind, and has also done so in previous years. Danvers' Yellow also usually stands well and makes fine early bulbs. A few days later may be allowed, say, from the 12th to the 15th, for the earlier localities. The ground should be in good heart, but not unduly rich, and be made firm. Sow rather thinly, for I always think the plants come best through the winter if no thinning is required. A border facing west is a good position for this crop.

C. Blair.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE FLOWER GARDEN.

DAFFODIL NOTES.

THE VALUE OF EARLY PLANTING.—"Seeing is believing," as the proverb says. I am unable to show readers the actual plants which grew in my garden last season, but I am able to do something almost as good. It so happened that I planted bulbs of about a dozen varieties both in August and November; if there was any choice between them as regards size, those put in at the later date were the largest and best. This spring I measured the length of the flower-stems in both lots, with the result that in every case there was a very marked difference in favour of the earlier ones; for example, Lady Margaret Boscawen gave 2 feet against 1 foot 7 inches; Cassandra, 1 foot 10 inches against 1 foot 4 inches; Blackwell, 1 foot 11 inches against 1 foot 6 inches, and so on. It was a striking contrast, for naturally both flowers and foliage were developed in similar proportions. I had another illustration of the same thing. I bought last year several thousand Leedsii-looking seedlings, which were planted in long beds side by side, but right in the middle of the flat there was one which, owing to its being occupied with other things, was not "set" until very much later. When my man and I went round the garden in early June in order to select what should be kept and what discarded, I condemned this poor unfortunate bed—it looked so poor and starved beside its neighbours. I had quite forgotten that it contained bulbs from the same set that were in some of the others, only they had been planted very much later. Anyone not knowing its history would have thought, as I did, that it contained a different batch altogether, and that they were hardly worth keeping. *Verb. sap.*

What to Buy.—There are very many varieties which are "common denominators." I do not refer to the old standard kinds like Emperor, Empress, Barri conspicuus, Sir Watkin, poeticus ornatus and the like, but to those newer ones which are slowly but surely qualifying for an honoured place in every garden where Daffodils are appreciated. Among trumpets Outpost is a decided acquisition on account of its earliness. It flowers quite a week before Emperor, and is a beautiful yellow self. Monarch, a deep rich yellow, on the other hand, is valuable because it is later. Golden Bell is a very floriferous plant and increases at a great pace. It is paler in colour than the others just mentioned. Passing to the bicolors, Duke of Bedford gains upon me every year. It is a magnificent flower, early, refined and of good constitution. In the white section, unless a very high price is paid, I can see nothing that for ordinary people supersedes Mme. de Graaff. Alice Knights will make a delightful pot plant when it becomes cheaper; ten shillings, however, is too much for most of us. Among the large and small cups there are a great many lovely things, so many, in fact, that a bare list must suffice—Amazon, White Lady, Lady M. Boscawen (very fine), Blackwell, Dorothy Wemyss (old, but not much known), Lucifer, Torch, Eyebright, Orangeman, Seagull, Constellation (most lasting) and Castile. The Poet section, as everyone knows, is now full of good things, but it is a very difficult task to decide what to recommend. A long time ago Miss Willmott told me that her experience was that in one year one did best, and in another, another. It seems to be the same with me. My favourite Comus did poorly this season, although previously it has always done extremely well. I will accordingly select six and leave readers to still further boil them down, with the one proviso that Cassandra must always be in the residue saved. A good selection would include Cassandra, Comus, Homer, Horace, Virgil and Ben Jonson. This last is very like a large ornatus. It appeals to me because of its perianth, which keeps smooth so long. In the doubles I consider Argent to be a flower that no one should be without. It is really a white and pale yellow semi-double, very elegant and pleasing and a wonderful laster. Lastly, there are the Poetaz—the new bunch-flowered race that originated in Holland in 1885 (see The Garden, May 29, 1909). Aspasia, Lucia, Elvira and Jaune a Merveille are each of them capable of producing such beautiful and lasting clumps of colour in the border that few varieties surpass them for the purpose.

Information.—Should anyone wish for particular information on any matter connected with the Daffodil, I would be glad if they would communicate with our Editor, and then with his permission I would do my best to supply what is required in these notes. The perplexity of one is frequently the perplexity of many. It must sometimes happen that it is one of the points that have not been touched upon that has caused it.

Joseph Jacob.

[We hope that the offer of Mr. Jacob will be taken advantage of. It is our desire to give as much help as possible to our readers.—Ed.]

THE KITCHEN GARDEN

NOTES ON VEGETABLES.

FEEDING TOMATOES.—It is the usu... and in all respects excellent practi... to start Tomatoes in fertile, but by ... means rich, soil, because it is perfectl... understood that the tendency of th... plant is to run to luxuriant leafage ... it has too much food in the earlier stages. The... must, however, come a time when the compa... tively small amount of available food in the so... will be insufficient to meet the requirements of th... plants with their swelling crops, and it is neces... to have recourse to feeding. To commence wit... it is imperative that the soil about the roots... whether the plants are in pots, boxes or the ope... air, is pleasantly moist, as liquid manure should... never be used in dry ground. Then apply an... weak stuff that may be at command. Soot-wate... is decidedly valuable, as it improves the colour... while any natural manure which may be convenien... can be requisitioned. If concentrated fertilise... are relied upon, those whose principal virtues li... in potassic and phosphatic elements should b... given the preference over those that are con... spicuously nitrogenous. In no circumstance... ought the same kind of food to be given twice i... direct succession, and pure water should always b... used between every two applications of liqui... manure.

Vacant Ground.—It is important, in order t... secure the full benefit of the amount of space tha... is available for vegetable crops (it is seldom to... much for the produce that must come from it), tha... quarters falling vacant shall be immediately pr... pared for another crop. Directly one thing is o... set to work to deeply dig, manuring accordin... to necessity, and as soon as possible afterwards pl... the succeeding plants in position. At this time ... the year plants are daily passing their period ... utility, and the quicker they can be cleared off, th... sooner the places may be prepared for the indi... pensable winter greens, which are ready for plantin... and will be better in their permanent positions tha... in the nursery bed occupied at present.

Vegetable Marrows.—Although these veg... tables cannot claim to have the high nutritive valu... or the palatability of many other kinds that a... generally grown, they have undoubted uses, an... no efforts must be spared to induce the plants t... perfect as many fruits as possible. To this end ... is almost invariably desirable, and commonl... absolutely necessary, that the plants shall b... given abundant supplies of water and occasional... a soaking of weak liquid manure; it is also fr... quently advantageous to throw water from a buck... forcibly over the whole of the growths. It ... surely superfluous to add that the plants w... continue in crop much longer when the fruits a... gathered of medium size than when they are allowe... to attain to the dimensions of monsters, and excep... for special purposes the small specimens are muc... the more useful. By the way, it is time th... amateurs and cottagers came to realise the gre... value of the bush varieties as compared to th... ramblers; they occupy less space and crop heavi... and earlier.

Autumn Onions.—It will shortly be necessa... to sow the seeds of the so-called autumn Onion... and it may be well to remind the inexperience... that the flat red and white Tripoli varieties, whi... are such great favourites for the purpose, are m... hardier of constitution than the Roccas or sum... summer sorts as Ailsa Craig, and they certainly d... not give the weight of crop which the globul... varieties do from an equal area of space. There... fore, the wise cultivator who desires to get ...

possible value will choose either one of the Roccas or one of those that are almost invariably sown in spring.

Celery.—The planting of Celery must proceed apace. One of the points which the novice is most apt to overlook is the great importance of putting the roots into good soil. One frequently sees the trench cut and manured and the roots put into the perhaps poor and often unsweet second soil. Instead of doing this, since it is always prejudicial to success, either a layer of quite new soil or some of the best and sweetest mould from the surface ought to be specially placed in for the benefit of the roots. The plants must have protection from the fierce sun for a few days and water when necessary. H. J.

THE GREENHOUSE.

MALMAISON CARNATIONS AT HALL BARN.

I ENCLOSE a photograph of six plants of Malmaison Carnation Princess of Wales which have been grown in a house facing due south. The flowers have been remarkably good, both in size and colour. I grow about 130 two year old plants in the same house, and the least number of blooms we had on any plant was eleven. The perpetual-flowering varieties also do well here. At the present time I have a batch of Mrs. Burnett about 5 feet high with about thirty flowers and buds all coming out in due time. The plants were struck twelve months last January, and have been continually in flower since last September. They are quite free from rust or disease of any kind.

George Johnson.

The Gardens, Hall Barn, Beaconsfield.

AN OLD-FASHIONED GREENHOUSE PLANT.

The Hedychium.

The flowers of this plant are very sweet-scented, and, although the individual blossoms do not last for a long time in a fresh condition, there are many of them, and as they open one after the other from the base to the point of the spike, the season of flowering is a fairly long one. These plants are very suitable for amateurs to grow who are not able to command a high temperature in their greenhouses during the winter-time, because the plants may be rested at that season, and if a minimum heat of 45° can be assured, they will do quite well. At the present time the plants should be placed in a light position in the greenhouse and be well watered. If the stems have been well matured during the latter part of the last summer and early part of the autumn, the flower-spikes will soon appear now. The temperature of the house may range from 60° to 75°, and the atmosphere must be maintained in a medium state of moisture until the first flowers open, then a drier and more buoyant atmosphere is best.

Directly the flowers have faded, pot-bound plants must be repotted. At this stage it is a good plan to divide the plants also if they are much overcrowded in the pots, and thus increase the stock. The most suitable compost is the following: Loam, two-thirds; peat and leaf-soil, one-third, with a peck of dried cow-manure to five pecks of the above combined parts and a 9-inch potful of coarse sand. After the potting has been done, place the plants on the north side of a span-roofed house, or at the north end, as the case may be, and if the house is a lean-to, put the plants on the floor for a few weeks. Water carefully and syringe the foliage every morning about eight o'clock. New growth will be made as well as roots, and when the plants are well established in their new pots, place them in the sunniest spot on the stage so as to get the new shoots well ripened prior to the resting period in winter. Those plants that are not repotted must be fed liberally with liquid manure after the flowering period is past. The leaves of the plants are very handsome, and those specimens that do not flower have a good appearance in the greenhouse.

Hedychium coronarium, H. maximum, H. gracile and H. ellipticum are white-flowered varieties. H. carneum (pink), H. gardnerianum (yellow), H. speciosum (pale yellow) and H. coccineum (scarlet) will form an interesting collection of plants that may be grown to bear flowers from June to the end of August. Avon.

GESNERAS AND THEIR CULTURE.

Tuberous Begonias are favourite plants for the embellishment of the greenhouse and conservatory, and amateur gardeners who cultivate a few plants of Gesneras will be equally pleased with them. Not only are the flowers beautiful and most attractive, but the foliage has a beauty all its own. The leaves are much more handsome than those of the Begonia; they resemble Gloxinia leaves very much. The rich carmine-coloured veins and varying shades of blue, combined with the deep green of the leaves, make them appear very attractive plants long before the flowers develop. Plants may be had in flower during the summer and early autumn months. Those who possess conservatories with borders in them could not do better than grow a few Gesnera plants, as they do remarkably well when the pots are placed on a border with pieces of slate under them.

When the roots begin to form a slight network round the sides of the pots, it is quite time that the plants are repotted. A rather light peaty soil with an admixture of rotted manure and sharp sand will form the best compost for the plants, and at subsequent repottings the same kind of compost is the most suitable to use. Directly the foliage begins to ripen in late summer and autumn, water must be gradually withheld. If the watering is done as usual, the bulbs or roots may be lost. When the leaves part readily from the tubers, that is, come away from the crowns, water should not be given at all. Store the tubers in their pots in a warm frame or greenhouse, or remove them from the pots and place them in sand in boxes, and keep them in a similar position where the new growth will not be unduly excited.

Seeds may be sown in spring or during the summer-time. An ideal position for the seed-pans is on an old spent hot-bed in a frame where the resultant seedlings can be shaded from the sunshine. A fine, light, peaty soil is the best in which to sow the seeds. The latter are very fine and dust-like, and must be sown on a damp surface, but not covered with soil. Do not water the tiny seedlings with a watering-can, but thoroughly moisten the soil by nearly immersing the seed-pans and allowing the water to rise up through the drainage holes, The seedlings must be pricked off just the same as are those of Gloxinias. B.

MALMAISON CARNATIONS (EXTREMELY FINE PLANTS) IN THE GARDENS OF LORD BURNHAM, HALL BARN, BEACONSFIELD.

TREES AND SHRUBS

SPIRÆA DISCOLOR.

The summer and early autumn flowering Spiræas form a useful group of shrubs, insomuch that they are easily grown, showy, and blossom at a period when the majority of flowering shrubs are over. S. discolor is one of the most distinct of the group, as it is quite different from any other kind, both in leaves and flowers. It is a native of North-west America, and may be met with from 8 feet to 15 feet in height, forming a bush of goodly proportions. Its broadly ovate leaves have deeply cut margins and are very downy, especially on the under surface.

The flowers, which appear during July, are cream-coloured and are borne in large panicles from the ends of the branches. It is one of the easiest possible shrubs to grow, and may be expected to thrive in almost any part of the country and in almost any kind of moderately good garden soil. It is equally at home planted in large masses or allowed to grow into an isolated specimen bush, while it assumes and retains a good shape naturally. An occasional top-dressing of well-rotted manure may be given with advantage, May being the best time to apply it. A dwarf variety known as

dumosa is sometimes grown; it is, however, of less value than the type. S. discolor is sometimes met with in gardens under the name of S. ariæfolia. W. D.

THE FERN GARDEN.

THE HART'S-TONGUE FERN.

VISITORS to the Royal Horticultural Society's shows at the Hall, the Temple and Holland Park last year cannot fail to have noticed the very beautiful exhibits of British Fern varieties which were there displayed, and among which those of the Hart's-tongue (Scolopendrium vulgare) ranked with the most striking. In all ferny districts, at any rate to the South and West of the British Isles, though in Scotland it is confined to a very few habitats, this Fern is found freely distributed as small plants on old walls and larger ones in the hedge-banks and in the woods. Normally it stands quite alone in Great Britain in the simplicity of its form, the dark green fronds being quite undivided and strap-like, commencing with a shortish stalk, at the top of which, commencing with two rounded lobes, the strap is formed with smooth-edged parallel sides for some distance, after which it tapers away to a blunt point. Nothing could be simpler as a foundation for phenomenal powers of variation, which it is absolutely safe to say render it the most remarkable Fern in creation as a species. Of course, most, if not all, of the plants we noticed at the shows mentioned were raised from spores, by means of which the peculiarities have been increased by selection; but in every case the original parent was found as a wild variety in a hedge, wall or wood, as the case may be, and in numerous instances these have been fully as remarkable as those exhibited. The Fern-hunter has little trouble in finding forked fronds in this species. Any day's hunt in congenial localities will result in the discovery of so many thoroughbreds of the lobatum type, with every frond bearing several tips, that this is no longer regarded as worth acquiring; but every now and again other and quite distinct ones turn up, and in course of time there have been found so many marked varieties that Nature has seemingly exhausted possibilities in the way of fantasias, so to speak, affecting every one of the characters of the simple frond described. Thus, the plain, tapering tip from mere forking has proceeded to form many types of more or less dense tassels, some bunched and others flatly extended, fan fashion, some fingered many times, and in others these fingers will divide again and again. In another type akin to this, instead of a single stalk we have a branched one, each bearing a frond tasselled or untasselled, and this branching may be carried so far as to produce a moss-like ball. As a variant to this, there are sagittate or arrow-shaped varieties, in which the rounded lobes forming the base of the strap are lengthened and even tasselled. The smooth surface of the frond has been broken up into all sorts of excrescences, muricate, rugose, &c., and these have been arranged sometimes into definite lines, supra and sub-lineate. The normally smooth edge has been varied crenately with rounded projections, serrate with sharp ones, and fimbriate, cut into lace-like fringes, and last, but by no means least, the flat fronds have been transformed into beautifully frilled ones (crispum). All these variations have, too, been found in different grades and also in association with more than one of the characters conjoined in the same plant, so that hundreds of quite distinct forms are to be found in collections of note. For those who may not yet have adopted this Fern as a decorative plant, I cannot too warmly recommend for trial the crispum or frilled section above mentioned, as it embraces certainly some of the prettiest of the tribe and the most distinct from any exotic. The Fern is perfectly hardy and evergreen. Good ordinary Fern compost—loam two parts, leaf-mould two parts, and silver sand one part—will suit it well, and in sheltered places in the open it is quite happy. As a round dozen of the best forms I may cite Scolopendriums var, cristulatum, grandiceps, flabellatum, cristatum, ramo-marginatum, sagittato-projectum, crispum fimbriatum, c. grande Wills, c. Bowden, c. robustum, c. Stableræ and Drummondiæ. Grown in a cold conservatory facing north, nothing can excel these as handsome evergreens for decoration all the year round.

CHARLES T. DRUERY, V.M.H., F.L.S.

ROSE PERGOLA IN A BUCKINGHAMSHIRE GARDEN.
(Photograph taken mid-July.)

THE EDITOR'S TABLE.

SWEET PEAS FROM ABERGAVENNY.

Miss Lindsay of Llanvais Rectory, Abergavenny, sends a delightful gathering of Sweet Peas. "The Marquis," our correspondent writes, "has come *quite true* this time—the third year that it has been grown. All the best varieties have been grown this year in tiny wooden pots, one seed in each, and the seedlings planted out in May. The George Herbert variety is quite the best of the Sweet Peas this year, a great number having four flowers."

ROSE GARDEN.

A ROSE GARDEN IN BUCKINGHAMSHIRE.

THE illustrations are reproduced from photographs taken in a Buckinghamshire garden near the beautiful glades of Burnham Beeches. Roses play the chief part. Wherever it has been possible to plant Roses, there they have been placed, chiefly the Tea and Hybrid Tea forms, masses of colour, one kind to each bed, and the whole plan has been carried out at small expense. At the entrance gate the Sweet Briar has been used to provide a dense mass of foliage, which scents the wind. No better place could be chosen for this fragrant-leaved plant than this, as it imparts the true feeling of a garden at the threshold of the house. On the left-hand side of the drive are ten beds, 7 feet long by 4 feet wide, and filled with, as suggested, one kind of Rose—in the first the Hon. Edith Gifford, and following this La Tosca, Mme. Ravary, Mme. Abel Chatenay, Sulphurea, Papa Gontier, Liberty, Corallina, Mme. Hoste and Camoens. In the beds at the top of the drive, on the left-hand side of the meadow, are groups of La France, Frau Karl Druschki, Mme. Abel Chatenay and G. Nabonnand.

One of the most successful features is the pergola (see illustration) of Roses. This was constructed about seven years ago, and over it many vigorous climbers have rambled, Dorothy Perkins and Jersey Beauty being planted at the entrance, then Mme. Alfred Carriere, Gloire de Dijon, Lady Waterlow, Crimson Rambler, Bennett's Seedling, Félicité Perpétue, Alice Gray, Meg Merrilies, Sweet Briar, Leuchtstern and Alister Stella Gray.

Round the kitchen garden is an Oak fence, also covered with Roses, which have flourished exceedingly in this favourite spot—Macrantha, the deep crimson Bardou Job, Leuchtstern again, Aimée

Vibert, Gustave Regis, The Garland, Claire Jacquier, Paul's Carmine, Paul's Single White, Stanwell Perpetual, Longworth Rambler and Mrs. Bosanquet, a China Rose seldom seen in our gardens. In front of the house is a large bed of Caroline Testout, which has never flowered more profusely than this season. There are masses of Frau Karl Druschki, Mme. Abel Chatenay and the majority of those that have been already mentioned. Le Progres is a great success. Near the lawn is another series of Rose-beds, which were planted more with the hope of exhibition blooms. Several prizes have been won with flowers from the plants there, and success in the exhibition tent gives a pleasant zest to the culture of the Rose. The dominant note of this garden is simplicity. It does not cover more than three acres, but there are flowers everywhere, filling the borders and lining the little paths by the side of plots given over to the more prosaic esculents. The garden is exposed to almost every wind that blows, and the soil is gravel. All the beds have been carefully made up, and the good foundation laid down has resulted in plants of surprising vigour, plants that give flowers from early summer until the autumn. The greatest care is necessary in prolonged dry weather, as the soil dries up quickly. Plenty of manure, removal of decaying flowers and syringing in the evenings of warm days are of the greatest help towards maintaining a display far into the autumn. Round the house itself, and facing the bed of Caroline Testout Rose referred to, are China Roses, Mme. Laurette Messimy, Mme. Eugene Resal, the old Monthly or China kind, associated with Rosemary, Lavender, the woolly-leaved Stachys lanata and the Jerusalem Sage (Phlomis fruticosa), which has grey foliage and clusters of deep orange flowers. C.

THE NEW HYBRID WICHURAIANA DIABOLO.

He would be a clever prophet who could forecast the future of the remarkable wichuraiana group. Shall we in course of time obtain exhibition flowers with the rambling growth of this class? Who can tell. In the above-named beautiful novelty we have a marvellous colour, one of the most brilliant among climbing varieties. Although described as blackish purple with white centre, it has opened with me a glorious rich scarlet. To compare its brilliancy I gathered flowers of Grüss an Teplitz, Charlotte Klemm and Duke of Wellington, and Diabolo was more vivid in colour than any of the three varieties named. The flowers are semi-double, sometimes single, the foliage small, thick and leathery, as one would expect from a cross between wichuraiana and Xavier Olibo, but the glistening leaf also showed its maternal origin. Flowering as it does about mid-June, it will be an excellent companion to Jersey Beauty and Joseph Billiard, and will provide that glorious shade of colour we often see in a very bright Duke of Edinburgh. P.

FORMING A ROSE PERGOLA.

[*In Reply to "Britannia."*]

We are pleased that you found our advice in the matter of your Rose garden so helpful, and we note your remarks as to the thinness of many of the newer Roses. This is true, but what they lack in fulness they compensate with most charming colouring and, as a rule, an abundant and continuous flowering. Your design for the proposed pergola is a very beautiful one. We should say a height of about 10 feet would be ample and a width of 6 feet. If you can increase the height and width it would be all the better for the Roses. As you dislike thin Roses, you deprive yourself of some of the very beautiful decorative sorts. There is no doubt but what a pergola of Roses should bloom as nearly as possible at one time as can be conveniently arranged, but some of the best pergola Roses flower at varying periods from early June until August and September. We would suggest that you plant, say, six each side of the fast-growing Roses, so as to clothe the top as quickly as possible, as many of the best double Roses of good quality are not very rapid in their growth at first. You could, if you prefer, have three of the six early flowering and the other three later. In between the six fast growers we would advise you to plant about twenty different varieties on each side. Eventually this might be too many, but for a few years you would not find it so, and later the growths of each can always be curtailed to the space available.

We mention below a few early-flowering and also late-flowering sorts, from which you could make a selection, and their hardiness is about equal, so you could plant on either side as you prefer. We should recommend them in the order as given, and they could also be planted in the same order. *Early flowering:* Réné André, Waltham Bride, Gardenia, Carmine Pillar, Alberic Barbier, Ruby Queen, Tea Rambler, Goldfinch, Helene, Rubin and Flora. *Late-flowering:* Dorothy Perkins, Hiawatha, Edmond Proust, White Dorothy, Blush Rambler, Delight, Félicité Perpétue, Mrs. F. W. Flight, Crimson Rambler, Lady Godiva, Mme. A. Carriere and Minnehaha. The following we would recommend as Roses of good quality of bloom. They could be planted in the order as given, only you must see that they harmonise with the more rapid growers that you wish to plant. *For east side:* Reine Marie Henriette, Reve d'Or, Johanna Sebus, Climbing F. K. Druschki, Alister Stella Gray, Climbing C. Christy, Ulrich Brunner, Mme. J. Siegfried, Aimée Vibert, Conrad F. Meyer, Kaiserin Friedrich, J. B. Clark, Waltham Climber No. 1, Climbing C. Testout, M. Desir, Climbing La France, Bouquet d'Or, Mme. Wagram, Boule de Neige and Ella Gordon. *For west side:* Hugh Dickson, Mme. H. Leuilliot, Dr. Rouges, Mrs. Paul, Zephyrin Drouhin, Gloire Lyonnaise, Lady Waterlow, Duchesse d'Auerstœdt, Gaston Chandon, Gloire de Dijon, Climbing K. A. Victoria, Climbing Mrs. W. J. Grant, Mme. I. Pereire, Crépuscule, Ards Rover, Nova Zembla, Mme. Berard, François Crousse, Climbing Devoniensis and Climbing Pride of Waltham. Procure as many as you can on their own roots, and do not prune them at all the first year; but those that are budded we should advise you to cut back the first season to about 18 inches from the ground. They should be cut down to about 2 feet at the time of planting, and finally to 18 inches in March.

HEDGE OF JAPANESE ROSES.

[*In Reply to P. B. Hulcombe.*]

Some of the hybrids of Rosa rugosa (Japanese Rose) will flower as early as the type, such, for instance, as Blanc Double de Coubert and Mrs. Anthony Waterer. As you require a white Rose, we advise you to plant alternately Rosa rugosa alba, the single white form of the type, and Blanc Double de Coubert, a superb double form. You would then ensure some of the plants producing the showy fruit or seed-pods for which the type and its white form are famous.

A BED OF THE HYBRID TEA ROSE CAROLINE TESTOUT. (*Photograph taken mid-July.*)

A row of China Rose Fabvier in front would give a beautiful effect. We recommend for the Japanese Roses a distance apart of about 2 feet 6 inches from each plant, and the China Roses about 15 inches. You should well prepare the soil by trenching it 2 feet deep and a width of about 3 feet, planting the row of Roses down the centre of the trenched soil. Work in a liberal amount of well-decayed manure, and if you incorporated some basic slag to the lower soil, at the rate of about 6oz. to the square yard, this would provide a good lasting fertiliser. By all means add some good clayey loam to your sandy soil if you can possibly do so, otherwise you need not fear that the plants will not grow well, even in a sandy soil. If the summer happens to be hot, you can always nourish the plants with liquid manure; indeed, all Rose hedges, whatever the season, should have waterings with liquid manure about once a week. Plant the Roses early in autumn, and in March cut back to about 3 feet in height. In subsequent years little pruning is necessary beyond cutting out old branches occasionally.

GARDENING FOR BEGINNERS.

FORGET-ME-NOTS AND SCENTED-LEAVED GERANIUMS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Once more the first week in August will herald a busy time in the flower garden. Many kinds of plants that now look charming and are in their best condition must be mutilated a little in order to obtain cuttings from them. This work is necessary because we require a stock of young plants for next year's display. The gardener, both amateur and professional, must look well ahead, in some cases quite eighteen months. Cuttings of Zonal Pelargoniums should be taken first. A good cutting must have at least three joints besides the young point growth. It must not be too sappy nor very long-jointed, that is, the joints must not be very far apart. As a further guide I may point out that the cutting should be about 5 inches or 6 inches long. Owing to the recent spell of cool, sunless weather, the growth of many kinds of plants is very tender and sappy, unfortunately. Cuttings of Pelargoniums often decay at the soil level when in this condition if inserted directly they are cut from the plants. So it is a good plan to lay the cuttings on a cellar floor for twenty-four hours before putting them in the soil. They must be fully prepared before they are placed on the floor, then the wounds will heal somewhat; much sap will evaporate, but the cutting will not lose its freshness. Where large numbers are required, they may be inserted in shallow boxes, but 5-inch and 6-inch pots are the best receptacles for them when a few only are needed. Variegated varieties, such as Flower of Spring, Black Douglas, Golden Harry Hieover, &c., are certainly best inserted in pots. Both boxes and pots must be thoroughly drained and the soil used of a sandy and porous nature, the surface being covered with coarse sand. Place the cuttings in a frame, admit air freely, but keep off rains. Heliotropes, Gazanias, Fuchsias, Coleuses, Iresines and similar kinds must be propagated in a light, sandy compost made firm and in a closed frame shaded from bright sunshine. Do not shade Pelargoniums. Cut down Lobelia plants so that they may make new shoots suitable for cuttings later on, or for lifting, dividing and potting in due course.

Vegetable Garden.—The main lot of Cabbage seeds may now be sown to provide plants for use early next spring. In the Southern Counties or South of London it will be early enough next week to sow seeds; but further North no time must be lost in getting them in. Sow the seeds broadcast and very thinly. In nine cases out of ten a cultivator raises nine times as many plants as he requires. This may be a wise thing to do, but the mistake is made in the sowing of the seeds, the latter only covering a small space instead of nine times the same space. Result: the surplus, not-wanted plants spoil those selected for growing on. Sow fewer seeds and much more thinly, and strong seedlings will result, just the kind that will withstand the rigours of winter and thus form hearts early in the new year. There are borders in many gardens that are under trees or shaded somewhat by trees or buildings; such borders must be made use of, and amateurs are sometimes at a loss how best to utilise them. Cottagers' Kale and Purple and White Sprouting Broccoli are good plants for such positions, also winter Spinach. Continue to earth-up Celery, and make a small sowing of Turnip seeds of early varieties. Broadcast sowing is best; the resultant roots will be useful.

THE FORGET-ME-NOT IN A POT.

Fruit Garden.—Earwigs are very numerous this year, and as these lurking pests are fond of eating fruit, especially Peaches and Nectarines, every care must be taken to preserve the latter from damage. Alphol, Vaporite, Kilogrub and similar powders lightly sprinkled at the foot of walls whereon the trees are trained will act beneficially, as the earwigs will not remain close to such preparations. Gently shake the branches daily and destroy any insects that fall. Place nets—suspended—under the ripening fruits. Carefully rake up all leaves found under bush fruit and wall and other trees. Destroy the leaves in a smother fire, as hundreds of insects will thus be destroyed. Gather and grade all ripening fruits.

Greenhouse and Frames.—That lovely climber Tacsonia van Volxemi will now require some attention. No stiff, formal training of shoots must be done, but it will be necessary to disentangle some of them and to destroy any mealy bug found, as these pests soon infest the plants. The flowers look very charming, depending gracefully from the twining shoots. Cut out faded flowers and a portion of the branches, also of Bougainvilleas and Plumbagos. Transfer the larger plants of Streptocarpuses from frames to greenhouses, and spread out in the former plants of Cinerarias and Primulas, so as to obtain strong, compact specimens. All seedlings in frames must be duly transplanted, as if neglected they will not be very satisfactory at the end of the coming winter. A. A.

THE FORGET-ME-NOT AS A POT PLANT.

THE Forget-me-not is such a universal favourite that, whether out of doors or in pots under glass, its charming blue flowers are sure to be much admired. Its great value for the greenhouse or conservatory is too often overlooked, though for this purpose it has been within the last few years much more used than it formerly was. The introduction of several new and distinct forms is, doubtless, greatly responsible for this. In the greenhouse the Forget-me-not readily lends itself to different methods of arrangement. In the first place it forms a delightful edging to a group of flowering plants, while as a carpeting to pots of the Paper-White Narcissus, or, later on, the white-flowered Freesia, its soft, restful colour enhances the beauty of its taller associates. Symmetrical little specimens, too, are very useful for table decoration, as, apart from their beauty, the sentiment attached to the name often forms a feature of interest.

For flowering in pots, a good plan is to sow the seed in the open ground in June, transplant the seedlings as soon as they can be conveniently handled, and carefully lift and pot them in the autumn. As the season goes on, the plants may be removed to a cold frame, taking them into the greenhouse in batches as required. When in the frame care should be taken that they have as much light and air as possible, as if weakly they lose much of their beauty.

As above stated, there are several distinct varieties of the Forget-me-not in cultivation. Particularly adapted for pot culture is Victoria, of a dwarf, bushy growth, with a profusion of particularly large flowers. There are both dark and light blue forms of this. Ruth Fischer is also a very desirable variety, the large, charming blue flowers being associated with particularly dark, glossy green foliage. Another superior form is the charming blue Perfection, while Royal Blue is the best of the upright-growing kinds. These last are characterised by upright growth, such as that shown in the accompanying illustration. The remarks as to the suitability of the Forget-me-not for greenhouse decoration might be extended to many other annuals; in fact, they have of late years been more grown for this purpose. H. P.

1.—A NEGLECTED PLANT OF THE OAK-LEAVED PELARGONIUM.

SCENTED-LEAVED PELARGONIUMS.

THESE plants have long been known by the more popular name of "Geranium," and to most readers they are quite familiar. Few plants are more valued for their fragrance. Although some readers may find little to admire in the flowers, it must not be forgotten that in a representative collection of fragrant-leaved Pelargoniums there are many very pretty kinds and varieties. These Pelargoniums are natives of South Africa. The Oak-leaved Pelargonium quercifolium is the kind figured in the present instance, and is perhaps the most popular plant of the series. P. tomentosum, the Peppermint-scented; P. citriodorum, Citron-scented; P. crispum, Lemon-scented; P. fragrans, Nutmeg-scented; P. radula, Balsam-scented; P. capitatum, Rose-scented; and others with finely cut foliage, such as P. denticulatum filicifolium, and varieties of the more promising kinds that provide a great deal of interest to those who value these plants for their leaf fragrance as well as for their decorative value should be grown. They are evergreen, so that they are useful at all seasons. For associating with many flowers the leaves are invaluable, and those growers who know the real value of the plants are not slow, as a rule, to take advantage of them for this purpose, as they last a long time in water. They are also valued by the amateur gardener because they are not difficult to grow. Anyone who can grow the ordinary Zonal Pelargonium should be able to manage these plants quite as well, as the treatment they require is much the same.

The time to increase the plants is from the beginning of August to September. Of course, propagation may be carried out in the spring quite well, but when this rule is observed it is not possible to make the large and attractive specimens that an earlier period of propagation invariably yields. The present time, therefore, affords the beginner an excellent opportunity of beginning operations, and for this reason no delay should take place in inserting the first batch of cuttings. In many gardens there are a few old specimens, and where this is not the case, they can be purchased fairly cheaply from the florists. In Fig. 1 a neglected plant of the Oak-leaved kind is portrayed, such as are raised in large quantities by market growers. By the use of the attenuated and unwieldy growths the stock may be perpetuated and the old plant turned to good account. The growths may be cut back and the detached pieces made into cuttings. If the plants are to be of any real good they must be cut back hard, as represented in Fig. 2, to about two "eyes" or joints of the original stems. The consequence of this treatment will be seen later on in the development of new growth at every joint.

2.—THE SAME PLANT CUT BACK HARD.

In Fig. 3 is shown, on the left of the illustration, an example of the growths obtained in cutting back an old specimen, and on the right of the same picture a cutting properly prepared and made from a similar growth. It is quite a mistake to utilise cuttings that are too long; a few inches in length will suffice, so long as there is a joint that can be embedded in the prepared compost. In making a cutting, remove the lower leaves and cut through the stem immediately below a joint, as shown in the illustration. Fig. 4 represents two methods of raising plants from cuttings. The latter may be inserted individually in 2-inch or 3-inch pots, or a number of cuttings may be inserted around the sides of a 5-inch pot, as shown. Always make the soil firm at the base of the cuttings. A suitable soil for propagation may be made up of equal parts of good loam and leaf-mould and the plentiful addition of silver sand, all well mixed together. For the first repotting use two parts of good yellow loam, half a part each of leaf-mould and well-decayed manure, and one part of coarse silver sand, all thoroughly mixed together. During propagation place the cuttings in a cold frame or greenhouse, and after rooting — in fact, during the whole of their growth — avoid the too free use of water; they prefer to be kept on the dry side.

It is gratifying to see signs of renewed popularity of this old-world kind of flower, and no plant is more suitable for the amateur. A few leaves given to a friend are a reminder of a pleasant day, and the flowers in many instances are prettily coloured. Happily their culture is very simple, as I have already indicated. They are not plants for the open garden, but when grown in tubs or in pots are most useful.

D. B. CRANE.

3.—ON THE LEFT IS A CUTTING AS TAKEN FROM THE OLD PLANT, AND ON THE RIGHT ONE PROPERLY PREPARED AND READY FOR PLANTING.

4.—TWO WAYS OF STRIKING CUTTINGS.

THE TOWN GARDEN.

"THE DAILY ROUND."—The almost continuously cold, wet and sunless time experienced of late has not been favourable to many things in the open, and flowering plants of all classes, hardy or exotic, have suffered. The tuberous Begonia, for example, often heavy of flower and broad of leaf, delights in genial warmth, its somewhat succulent nature being opposed to much wet. Hence there are signs of decay both in flower and leaf, and unless these are removed early the successional flowers and buds will suffer. The early removal, too, of all decaying particles will tend to improve the general effect, while the continued flowering of the plants will be to some extent preserved. Seed-pods, too, that form early should also be removed, as well as the somewhat lengthy stalks which support them. These latter tend not a little both to disfigure the Begonia and to bring discredit upon the worker, while the seed-pods, if allowed to remain, because of their prior claims to support, promptly bring the flowering to a standstill.

HARDY FUCHSIAS.—By hardy Fuchsias is intended that beautiful race of usually deciduous flowering shrubs of which F. Riccartonii is the best-known type, and for which we plead a more general or extended use in town and country garden alike. In some districts, such as the more favoured parts near the coast-line, this race of Fuchsias are not merely hardy; they are also occasionally evergreen. Generally, however, they are deciduous, and the late-made growths are at times cut back by the frost. These facts need not deter anyone from taking them in hand, for they suffer no serious harm in consequence, and, submitting to the free use of the pruning-knife, spring up again with

renewed vigour from the base and flower with their wonted freedom only a little later than would otherwise have been the case. There is an old-time charm and grace about them, and they are as useful in the cut state in the home as they are in the garden.

SNOW WHITE PHLOXES.—A wet or dripping and cool summer is usually regarded as a good Phlox-time, and at the moment there is every prospect of this being realised. Doubtless, while the wet and cold have their depressing influences upon the mind and inflict injuries upon the gardener and farmer alike, they have also their advantages and compensations if we would only search them out. So valuable a flowering group as the herbaceous Phlox cannot well be spared, and the splendour of their fine panicles of flowers creates a lasting impression. At the moment, however, I have in mind two very fine pure white sorts which are in every way admirable. These are Tapis Blanc and Mrs. E. H. Jenkins. The first-named has the finer individual flowers and is the earliest to bloom; the second has the larger panicles of flowers and is the most valuable decorative sort I know of its colour. In any garden there is abundant room for both, and while one never tires of their sweet beauty, there is great scope for fine contrasts by planting the brilliant hybrid Pentstemons or that even more brilliant scarlet flower, Pentstemon barbatus, in near or close proximity thereto. The last-named hardy border flower is one whose elegance and grace appeal to all, and its flowering continues for weeks in succession.

REMINDERS.—If not already sown, seeds of Hollyhocks, Gaillardias, Pansies, Polyanthuses and the like may be got in without further ado. Then, it not infrequently happens that the amateur requires a number of young plants of white Arabis to later on carpet a bed of scarlet Tulips, and such young plants may be secured by inserting the cuttings now. At the same time, and for similar purposes, the old plants of Myosotis may be trimmed, divided, and laid thinly in trenches so as to be ready for use.

E. H. JENKINS.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Chinese Pæonies (*C. L.*).—The Pæonies are doubtless deteriorating, and there are many causes leading up to this state of things. The soil may be exhausted, the plants may be too near trees, the roots may have been eaten or become cankered, or many other things of which we have no information. In good, deep and rich soil the Pæony is capable of existing for years and giving a good display annually. In dry soils the plants should be saturated in summer-time with water, and in winter deluged with liquid manure. One can hardly treat the plants too liberally, deeply dug, heavily manured soils being most important. Remembering that the Pæony is deep-rooting, the ordinary winter surface mulchings are not of great benefit. Possibly from the remarks you may be able to divine the cause of the failure; if not, you had better lift and divide the plants in August or September, replanting them in fresh ground. We hope soon, however, to publish an article dealing fully with this important work, hence we refrain from fuller particulars now.

Daffodils and Pæonies (*Mrs. Malenberg*).—If there is a good depth of rather moist loam, such trumpet Daffodils as Henry Irving, Golden Spur and princeps would do quite well. Narcissus poeticus prefers moister ground, though N. p. ornatus would be quite suited with those named above. For the border the Irises would do quite well, but if much shaded the Pæonies may not retain their fullest vigour long. Pæonia albiflora would be suitable, though there are many others quite good for the purpose. In both instances the Irises and Pæonies would appear best in groups, irregularly arranged; the latter being the taller, as well as the later-flowering, would be best planted at the back. The Pæonies should be planted in August or September, as these subjects are somewhat exacting in this respect. April is the best time to plant the Irises, though they are really not a fastidious race. The ground must be rich and well prepared.

Carnations failing (*M. D.*).—The plants have the double misfortune of being attacked both by wireworm and the Carnation maggot, the foliage affording abundant evidence that slugs have played the part of scavengers to the first-named. The wireworms exist in the soil and bore into the stems of plants and their roots, and may be captured by placing Potato traps, *i.e.*, slices, round about the plants. The maggot results from the larvæ of a fly, and, being deposited in the leaf-axils of the plants, presently bores its way into the above-ground portion of the plant or into the leaves. Its presence may be detected by the white-looking character of the leaves, and the pest may, if early sought after, be kept in check. Not infrequently it gets into the heart of the plant, when the latter is ruined. Dusting with soot will render the plants distasteful to the pest, while an application of soot or an occasional light dressing of salt, given not too near the plants, will destroy the slugs in the soil.

Green Delphinium (*A. Fisk*).—The green flowers are the result of one of those spontaneous freaks of Nature for which there is no accounting. It is, however, more than likely, seeing the whole of the spikes are similarly affected, that it may be repeated another year, though there is no certainty as to this. Beyond being a curiosity it is quite useless.

FRUIT GARDEN.

Gooseberry bushes blighted (*H. S. W.*). The branch sent is suffering from a bad attack of black fly; this is invariably accompanied with the black sooty stuff you speak of. The following mixture, if syringed over the affected branches, will kill it and help to cleanse the trees: Tobacco leaf, half a pound; soft soap, half a pound; water, ten gallons. Infuse the leaves in water for six hours, then strain off and press the Tobacco and infuse again. Add the Tobacco extract to the dissolved soft soap and water. Wash the fruit, if discoloured, before using.

Raspberries failing (*Mrs. E. L. Stanton*). The Raspberry shoots are in such feeble and miserable health that it is impossible for them to produce any results in the way of well-developed and well-ripened fruit. The best treatment to give in the hope of bringing them round to good health would be to at once give the surface of the ground over their roots a good dressing of well-decayed manure, say, 3 inches or 4 inches deep. This will induce the formation of new roots, which in turn will infuse new strength to the canes of this year's growth. The old canes should be cut clean away to the ground as soon as the fruit is gathered. Do not let the man dig the rows in winter or at any other time, as the best roots of these trees are near the surface, and are always more or less destroyed by digging.

Peach curl proliferation (*Mrs. W.*).—The Peach is attacked by the Peach-curl fungus (Exoascus deformans). This fungus is always most prevalent when the plants have been checked by low temperatures or cold winds, and thus seldom appears under glass, except near doors or where panes are broken. You have done right in removing all the diseased pieces, as the fungus lives in the shoot and reappears in the succeeding year where the shoots are not removed. The removal of diseased shoots, the protection of the trees from cold and draughts in the spring, and when the disease is about spraying with potassium sulphide solution, are the preventive measures to be employed. The Rose had grown out from the centre of the flower. The cause of this common occurrence is quite unknown, and no means of preventing it are apparent.

Peaches and leaves dropping from trees (*Gobo*).—It is nothing unusual for Peach trees to cast their fruit at the age these have arrived at when the trees are overloaded with fruit which they are unable to carry. The same cause would be responsible for some of the leaves falling off as well. There is nothing in the appearance of the fruits or the leaves which indicate in any way that they are suffering from disease or from the attacks of insect enemies. The kernel of the stone of one fruit out of three was decayed, but this would not cause it to drop. If this explanation does not apply, we can only suggest that the soil has suddenly become exhausted of some agent, such as lime, which is essential to the well-doing of the trees at this stage of their growth. It may be that the heavy watering which the trees had received a day or two before may have had something to do with it, especially if the border was on the dry side before, causing a certain momentary excess of sap to flow, and thus disturbing the normal functions of the roots and sap circulation of the trees. If any expert Peach-growing readers of THE GARDEN can throw any further light on the subject, we shall be glad to hear from them.

Gooseberries diseased (*C. N.*).—The Gooseberries are probably attacked by the fungus Botrytis cinerea, which has developed in the lower part of the stem. If you carefully examine this part of the stem, you will probably find patches of a greyish mould, and very likely some small blackish masses of a fungus protruding from cracks in the bark. This fungus is the often unsuspected cause of much damage to Gooseberries, and the best mode of treating the affected bushes is to remove all dead and dying branches as soon as they are seen.

Caterpillars on Apple trees (*R. R.*).—The caterpillars sent include those of the barred umber moth and the lackey moth, both of which frequently attack Apples. The best spray for these and for all other biting insects on fruit trees is lead arsenate. This may now be obtained in the form of a paste, and is safe to use, as a rule, on Apple trees, unless small fruit is under the trees. Persist in the grease banding, for that is the best means of keeping down the worst of the pests, and keep the grease fresh from the end of September until the end of March. As well as can be seen from the small piece sent, the Cherry is suffering from silver leaf, but it was much dried up when it reached us. There were also large numbers of aphides.

Apple tree grown from a pip (*John Elkins*).—The shoots sent are badly infested with the Apple blossom weevil, green fly and mildew. Many of the leaves are also badly blistered, the latter being caused by frosty nights and cold winds. To kill the weevil and the fly, spray your trees with the following mixture: Arsenate of soda (dry), 2oz.; acetate of lead, 7oz.; water, 10 gallons. Mix well together, and, when not wanted, keep under lock and key, as it is a deadly poison. To destroy the mildew, scatter some flowers of sulphur thickly over the injured parts early in the morning while they are damp with dew, and it will be killed in the course of a few days. Rain will wash away the sulphur from the tree in good time afterwards.

ROSE GARDEN.

Pompon Roses rotting before expanding (*Miss F. P.*).—Unless the plants have been sprayed with insecticide of too strong a nature, we can only believe the cause of the buds rotting is traceable to defective root action. Whether this is attributable to want of deep cultivation, so that the roots are checked in their search for nourishment, or your soil is water-logged we are unable to say. Sometimes buds will turn like this owing to excessive dryness at the root. Could you have a plant dug up and sent to us, and also give a few particulars as to whether the plants are growing near other Roses, and say if these latter are doing well? Also kindly say if any artificial manures have been used and if you have sprayed the bushes with any chemicals.

Exhibiting Roses (*Mrs. A. R. C.*).—We fear you would stand a poor chance at the exhibition you name, seeing that you have fewer than 100 trees. Some amateurs who grow 500 plants have been unable this season to show twelve blooms at the National Rose Show. The standard of excellence at such large exhibitions as that of Shrewsbury is a very high one. We are sorry to discourage you, but fear you would have little chance of success, especially as the blooms would be in the hands of one who knows nothing about setting them up. There is almost as much art in arranging the flowers as in growing them. You should visit a good Rose show and ask some expert to point out to you a three-point flower, then try and imitate it in your cultivation. It would be better if you obtained, say, twelve to twenty plants each of two dozen best exhibition sorts before you attempt to exhibit at these large shows. We shall be pleased to help you still further with any advice you may desire on the subject.

Hot water for spraying Roses (*Crimson Rambler*).—Some growers advocate the practice of spraying with hot water when the Roses are grown under glass, and we believe with very good results; but we have never seen it recommended for spraying outdoor plants. The great point to remember as regards the dealing with green fly and mildew is to commence to spray early and often. Use the sprays as a preventive rather than a curative, and apply whatever spray you use with a good sprayer. White's Abol is an excellent article, so also is Jeyes's Cyllin Soft Soap, the latter especially for green fly.

Roses in chalky soil (*Soldier's Wife*).—You could without much trouble dig out some of the chalky soil and replace it with some loam, which is usually obtainable from the local florists. Fresh soil to the depth of 2 feet would be sufficient, and a circular bed of about 6 feet diameter would hold some twelve or eighteen plants. The bed should be enriched by adding one part of good manure to three parts of soil. If you desire to grow a few standards and Ramblers, take out holes in the chalk of about 2 feet diameter and 2 feet deep for each tree. Fill the holes with the soil as advised and plant in November. Be careful to make the soil firm about the roots.

Rose with green centre (*M. B.*).—The green centre in the bud forwarded to us is generally the result of late frosts injuring the buds when they have attained a fair size. Sometimes the trouble is caused by overfeeding with heavy manures. There are also certain varieties much addicted to this trouble, of which we may mention Mme. Isaac Pereire, which is a Hybrid Bourbon and belonging to the same tribe as Mme. Nobécourt, the variety you send. You can do nothing to remedy this state of things, if frost is the cause of it, except to remove the crippled buds, for they rarely develop into respectable flowers. If it is owing to overfeeding, you must be careful to avoid overdosing the plants with manures.

KITCHEN GARDEN.

How Beans climb (*A. J. X.*).—The Kidney Beans proper do not climb, but the climbing varieties of the French Bean and also Scarlet Runners twine in the opposite direction to the course of the sun, *i.e.*, from west to east, instead of from east to west.

The Onion maggot (*Constant Reader*).—When the maggot is formed and has attacked the Onions as you say yours are attacked, there is very little chance of ridding the plants of the enemy. The best means of keeping it in check and of driving it away is by syringing the bulbs with a solution of soft soap and water, half a pound of soap to two gallons of water. They do not like the taste of this. The mischief is done by the Onion fly, which deposits its larva on the young plant in spring, generally about the end of April. The best way of preventing it doing this when the young plants are sown out of doors is to frequently scatter soot at this time over the young plants; this will keep the fly off. But the best way of all is to sow the Onions in boxes and to plant them out, sooting the ground in which they are planted, and the plants also, when danger of attack from the fly will have passed.

MISCELLANEOUS.

Keeping concrete fountain basin clean (*Schickallion*).—The only thing you can do to keep the water clear in your fountain is to add copper sulphate to the water at the rate of 2½oz. to 10,000 gallons of water. The copper sulphate may either be dissolved in a little water and sprayed over the surface of the tank, or it may be tied in a canvas bag and be drawn about the water until it is dissolved. If not used in any stronger proportions than those mentioned, it will not hurt the Water Lily, and it ought not to hurt the fish, though this cannot be vouched for. It is probable that two or three dressings will be necessary to keep the water clear throughout the season.

Artificial manure for rock garden (*Sojourner*).—It will much depend upon the class of plants grown whether artificial or organic manures could be advantageously applied, and of the subjects grown on the rockeries you give us no information. Bone-meal is a safe and slow-acting manure, but, if something more quickly soluble is desired, then superphosphate of lime could be used. Guano-water may be also used, or Clay's Fertilizer. Bone-meal, at the rate of half a peck to a barrowful of soil, having lain in a heap for a fortnight after mixing, should be applied, the surface soil being first lightly broken up. Superphosphate may be sown thinly about the rockery—not on the plants—and watered in. Clay's Fertilizer should be used at half the strength of the bone-meal, and similarly treated before applying it.

Fig trees dropping their fruit (*C. B.*). The cause of the Fig tree dropping its fruit is because the fruit is seedless. This is a common misfortune with Fig trees growing in the open, and in our experience the chief cause of their doing so lies in the fact that the trees during their season of growth in summer are allowed to carry too many branches, causing the trees to be so dense with foliage as to make it next to impossible for sunshine and air to penetrate the trees and circulate among the branches, without the agency of which in the development and ripening of the wood of the current year's growth it is hopeless to look for fertility in the trees. We would advise you to cut clean away at their base all the weak shoots there may be in your trees as soon as possible. This will help at once to expose them to the influence of the above agencies. If you will always bear in mind to keep your trees on the thin side rather than the crowded, the trees, we believe, will carry their fruit all right.

Shrubs for peaty soil (*French Subscriber*).—The following shrubs and trees ought to thrive with you under the conditions you mention: Cistus laurifolius, C. ladaniferus, C. florentinus, C. Cyprius, C. monspeliensis, C. purpureus, C. villosus, C. corbariensis and C. albidus, Helianthemum vulgare and all its varieties, H. alyssoides, H. formosum and H. polifolium, Genista virgata, G. cinerea, G. ætnensis, G. hispanica, Spartium junceum, Cytisus albus, C. præcox, C. purgans, Potentilla fruticosa, Rubus ulmifolius var. flore-pleno, R. spectabilis, Rosemary, Lavender, double-flowered Gorse, Rosa rugosa, R. spinosissima and varieties, R. moschata, Spiræa Menziesii, S. salicifolia, S. Douglasii, Cotoneaster rotundifolia, C. horizontalis, C. Simonii, C. frigida, C. microphylla, C. buxifolia, all the European Ericas, dwarf, dense-growing Rhododendrons, Arbutus Unedo, Vacciniums in variety and Cotton Lavender. It is probable that the following trees will answer your purpose, for the leaves colour brilliantly in autumn: Cratægus mollis, C. coccinea, Pyrus spectabilis, Amelanchier canadensis, Rhus Cotinus, R. cotinoides, R. typhina, Koelreuteria paniculata and Nyssa sylvatica. The Roses and most of the trees require better soil than the majority of the other things; consequently the ground ought to be worked deeply and enriched before planting.

Slugs in gardens (*Gardener*).—If the garden is now cropped, you cannot do more than you have done to the soil at present, though you might give a heavy lime or soot dressing to the Box edging, which is probably affording them shelter. If this does not have the desired effect, obtain some quassia chips and, having prepared a solution, syringe the base of the hedge with the same. Were the soil vacant, your better plan would be to dig in Apterite at the rate of 3cwt. to the acre. This and other soil fumigants require to be dug in a few inches deep, and will speedily kill a large number of insect pests that infest the soil.

Various questions (*Ethel, Hereford*).—You do not give us the height of your Sweet Peas at the time of writing, but you would not go far wrong in cutting them down to within 15 inches of the soil. They should then be given a good soaking of water if the soil is dry, and if you can arrange to have them watered while you are away from home, you should secure good flowers later in the season. The new hybrid Aquilegias can be divided, but it is advisable to do this very sparingly. Our experience of them is that they do not live so long as the older Columbines. Double Daisies should be lifted, the young offsets taken off and replanted in good soil as soon after flowering as possible, choosing showery weather for the work and seeing that the young plants do not subsequently suffer for the want of water.

Grubs for identification (*Dr. T. W. N. G.*).—The grubs sent are those of a two-winged fly, and appear to be nearly related to the blue-bottle. They feed on decaying matter in the soil, and are not to be blamed for the damage you speak of. It is probable that the millipedes are the culprits. The soil is apparently very sour, and this condition encourages the development of such insects and other pests as those you speak of. You may use quicklime in the autumn at the rate of half a bushel to the square rod, placing it in heaps on the ground and covering with a little soil so as to allow it to slake there, then spread on the ground and fork in. Gas-lime would be used at the rate of four tons to six tons to the acre, and some months must elapse before plants may be put in. There is some danger of damage to the Gooseberries.

Carnations and other questions (*K. M. T.*).—The Carnations appear to be unhappily placed, and clay soil is certainly not generally the best for these plants. At the moment they may be suffering from uncongenial surroundings, from dryness of the ball of earth in which the roots are at present confined, while they may also be suffering from the presence of the Kilogrub, which should not have been dug in at planting-time, but some days in advance. If any of these soil fumigants are a necessity, the plants may be suffering from wireworm, and you had better examine them to this end. The Rose would be much more happy in the heavy soil, and the plant may simply be dry at the root, the wooden shed tending to keep off the rain. Examine the soil near the shed and, having noted its condition, act accordingly. The Wallflowers will be all right if they survive the winter, which in your district will depend entirely upon circumstances.

Planting an island (*Gibbons*).—Your first real business is to get rid of the Garlic, and this may be done by cutting it down continuously as it appears or by digging it out and burning it, the latter a tedious and expensive operation. For the rest you might plant Bamboos in variety, more particularly B. Métake, B. Veitchii, Phyllostachys nigra, P. aurea and others, Elymus glaucus, Gynerium argenteum, Senecio Clivorum, S. Wilsonii, S. Veitchii and the water or moisture-loving Spiræas, such as venusta, gigantea, Aruncus and others, with such good Daffodils as Emperor, Sir Watkin, Empress, princeps, ornatus, May-flowering poeticus in single and double varieties, quite a host of Narcissus incomparabilis, together with Epilobiums, Lily of the Valley, Primroses in the unflooded portions and many other plants. The best planting-time would be in late summer or early autumn, and, having got rid of the wild Garlic meanwhile, the place, with the aid of expert advice on the spot, might be made a most interesting one.

Plants for garden near the sea (*Arthur Pullman*). The following plants are likely to thrive in your garden near the sea: Roses—Caroline Testout, Mrs. John Laing, General Jacqueminot, Grace Darling, Dupuy Jamain, Gloire de Dijon and Captain Hayward. Flowering shrubs—Berberis stenophylla, Ribes sanguineum, R. aureum, Spiræa arguta, S. japonica var. Anthony Waterer, S. Menziesii, Forsythia suspensa, Laburnums, double-flowered Thorns, Tamarix in variety, especially T. pentandra, or T. hispida var. æstivalis as it is often called, Diervilla Abel Carriere, Viburnum plicatum, V. Tinus and V. Lantana. Herbaceous plants—Crambe cordifolia, C. orientale, Phlox in variety, Delphiniums, Dianthus in variety, Galega officinalis, Helianthus in variety, particularly Miss Mellish, Hollyhocks, Asters, Monarda didyma,

Salvia nervosa, Veronicas in variety and Pæonies. Suitable annuals and biennials will be found in Antirrhinum, Calendula officinalis, Wallflower, African Marigold, Mignonette, Iberis in variety, Salvia Horminum, double Rocket, Forget-me-not, Sweet Peas, Sweet Williams and Nasturtiums. Good climbers are Wistaria chinensis, Polygonum baldschuanicum, Clematis montana, Solanum crispum, S. jasminoides and Hydrangea petiolaris.

Names of plants.—*Wm. S. M.* — Cystopteris fragilis.——*L. C.*—Butterfly Orchis (Habenaria chlorantha.)——*Rosebud.*—1, Galega; 2, Origanum vulgare; 3 and 4, please send when in flower; 5, Marie Pavic; 6, Perle d'Or; 7, Cecile Brunner.——*A. N.*—1, Please send when in flower; 2, Hydrangea paniculata; 3, Plumbago capensis; 4, Francoa ramosa.——*J. H.*—1, Campanula pusilla alba; 2, Phlox subulata var.; 3, Acæna microphylla; 4, Rose Countess of Oxford.——*G. A.*—1, Begonia evansiana; 2, Arundo lindleyana; 3, Helenium autumnale; 4, Potentilla argyrophylla var.; 5, Lychnis dioica fl.-pl.; 6, Hemerocallis aurantiaca. —— *B. J. W.* — 10, Countess Cairns; 14, Grüss an Sangerhausen; 22, Innocente Pirola; 31, Marjorie.

SOCIETIES.

NATIONAL CARNATION AND PICOTEE SOCIETY (SOUTHERN SECTION).

THE thirty-fourth annual exhibition of this society was held at the Royal Horticultural Hall on July 26, when many excellent flowers were staged. There are still, however, far too large a number of the so-called "dressed flowers," and these, with their frequently inharmonious white paper collars, show what *not* to do with so beautiful a flower as the Carnation.

NON-COMPETITIVE GROUPS.

Messrs. William Cutbush and Sons, Highgate, N., had an excellent group of cut Carnations near the entrance, comprising Malmaison and Perpetual-flowering varieties. Of the former, Sault was the more prominent, while of the latter we noted the popular heliotrope-shaded Countess of Onslow, Lady C. Waring (striped fancy), C. W. Cowan (fine crimson), Marmion and White Perfection. The group was most artistically arranged.

Messrs. Stuart Low and Co., Enfield, had a delightful lot of Roses, of which Lyon Rose, Joseph Lowe, Liberty, Mrs. Grant, Mrs. Theodore Roosevelt and Frau Karl Druschki were the chief. White Killarney was also noted.

Messrs. Barr and Sons, Covent Garden, had a fine display of Phloxes and other cut herbaceous flowers. Of the former, Le Mahdi (violet), Mrs. Jenkins (white), Etna (scarlet) and Lady Molly were good. Lilium chalcedonicum was also fine.

Messrs. J. Peed and Son, West Norwood, S.E., exhibited a fine group of border Carnations in pots and vases, the former including Francis Samuelson (apricot), Daffodil (yellow), Professor Cooper, Rony Buchanan and Duchess of Wellington, of heliotrope shade.

Mr. Charles Turner, Slough, had an excellent group, in which Ethel (yellow ground fancy), King George (yellow ground striped fancy), Purple Emperor, Pink Pearl and Triton (crimson) were very fine. Ruby (crimson maroon) was also noteworthy.

Messrs. G. and A. Clark, Limited, Dover, showed a few good hardy plants, of which Campanula Vidali, assuming a suffrutescent habit and carrying some eighteen spikes of its waxy white spikes of pendent flowers, was a most remarkable example. C. lactiflora with hybrid Pentstemons and Cimicifuga racemosa were also noted.

Messrs. Phillips and Taylor, Bracknell, near Reading, had a group of hardy plants, Potentillas, Carnations and Water Lilies being prominent.

Messrs. H. B. May and Sons, Edmonton, showed a capital group of greenhouse plants and Ferns, Nephrolepis and Campanula isophylla varieties being strongly represented.

DRESSED FLOWERS.

For eighteen blooms, dressed on cards, bizarres and flakes, Mr. James Douglas, Great Bookham, was first, having Gordon Lewis, Master Fred, Recorder, Admiral Curzon and Meteor among his best flowers; second, Mr. C. Blick, Hayes, Kent, who had Cleopatra, Edale, Opella, Roger Bacon and Clara Stuart in an excellent lot.

For a stand of eighteen blooms, on cards, Mr. Douglas was again first, having Bob Acres (scarlet), Cardinal, Mrs. R. Gordon and Daffodil in a good lot. Mr. C. Blick, Warren Nurseries, Hayes, who took second prize, had, we think, the finer and heavier flowers in this class, his Solfaterra, John Knox (crimson) and Elizabeth Schiffner being of exceptional merit.

For eighteen fancy Carnations, dressed on cards, not fewer than twelve varieties, Mr. Charles Blick, Warren Nurseries, Hayes, came first with a splendid lot of flowers, his best being Donald MacDonald, Bombardier, Medusa, Vandyck, Skirmisher, Dauntless, San Remo, Victory and Leslie. This was a superb lot throughout, and it is doubtful if a finer set has ever been staged. Second, Mr. James Douglas, Great Bookham, whose smaller flowers were fresh and clean.

In the class for eighteen white ground Picotees, dressed, Mr. Douglas was first, having Harry Kenyon, Mrs. Sharp and J. Smith among the best flowers. Mr. C. Blick, Hayes, was second with a good set of the best varieties.

For the best eighteen yellow ground Picotees, Mr. Douglas was again in the leading place, his finest flowers being Margaret Lennox, Ophir, Goblin and Togo; second, Mr. C. Blick, whose flowers were fresh and clean.

UNDRESSED FLOWERS.

For six varieties, selfs, three blooms of each, arranged with Carnation foliage, Mr. J. Douglas, Great Bookham, was first, having Mrs. Robert Berkeley, Mrs. Griffiths Jones and Daffodil as his best. Mr. C. Blick, Hayes, was a good second, staging excellent examples of Miss Willmott, Maharajah, Mimosa (apricot), Argonaut (scarlet) and Attraction (white).

For six varieties of Carnations, fancies, three blooms of each, Mr. Douglas was again first, his best being Queen Eleanor and Gloriosa. Lord Steyne and Liberté in this set appeared somewhat rough-looking flowers. Second, Mr. C. Blick, who staged Medusa, Lieutenant Shackleton and Skirmisher very finely.

For six varieties of Picotees, three blooms of each, yellow ground, Mr. James Douglas was again first, having Exquisite, Togo, Ophir, Santa Claus, Omand and Margaret Lennox; a very nice and clean lot. Mr. Blick, Warren Nurseries, Hayes, was second, showing Lady Godiva, F. W. Goodfellow, John Ruskin and Miss Winifred in good form.

For twelve distinct varieties, selfs, fancies and yellow ground Picotees, three varieties of each in separate vases, Mr. J. Douglas was first with a very strong lot, Lord Steyne, Ruby, Onward, Gloriosa, Togo, Renown, Daffodil, Liberté, Mrs. Robert Berkeley and Kate Nickelby being among the best; second, Mr. C. Blick, Hayes.

DRESSED FLOWERS (SECOND DIVISION).

For twelve Carnation blooms, bizarres and flakes, Mr. H. R. Taylor, Cheam, was first with a good representative lot; second, Messrs. Phillips and Taylor, Bracknell.

For twelve Carnation blooms, dressed on cards, Mr. H. R. Taylor, Cheam, was first, Mr. H. Mathias, Stubbington, being second.

In the class for twelve Carnation blooms, on cards, Mr. H. Mathias, Stubbington, was first, having Mars, Daniel O'Connor, Hecla, Liberté, Orlando and Highland Lass; second, Mr. C. Wall, Bath, whose Leading Lady and Linkman were very good blooms.

For twelve white ground Picotees, Mr. H. R. Taylor was first, his blooms being clean and good; second, Mr. R. Sydenham, Melbourne.

For twelve yellow ground Picotees, Mr. H. Mathias was first; Mr. William Sydenham, Birmingham, second; and Mr. C. Wall, Bath, third. The blooms in this class were very much alike, the first prize group having the finer and cleaner flowers.

THE MARTIN SMITH MEMORIAL CHALLENGE CUP CLASS (AMATEURS ONLY).

In this class the premier award, the challenge cup and silver-gilt medal, for twelve distinct varieties of selfs, fancies and yellow ground Picotees, went to Mr. H. R. Taylor, Cheam, whose Cardinal, Snowflight, Earl King, Ophir, Rony Buchanan and Togo were excellent; second, Mr. R. Morton, Woodside Park, N.; third, Miss Shiffner, Lewes.

OPEN TO ALL.

Nine blooms, one variety only, pink or rose selfs: First, Mr. J. Douglas, with Miss Willmott, the blooms being of good size but not of good colour; second, Mr. A. R. Brown, who staged smaller blooms of the same variety.

For nine blooms, white selfs, Mr. Douglas was again first with Mrs. T. E. Henwood.

Mr. Douglas was also first for nine blooms of dark red or maroon selfs, Agnes Sorrell being the variety shown.

For nine blooms, one variety only, of yellow selfs, Mr. Douglas was again well to the front with magnificent blooms of Daffodil; Mr. H. Lakeman, Thornton Heath, being second; and Messrs. Phillips and Taylor third, all showing the same variety. An excellent class in every way, the flowers very fine and well displayed.

For nine blooms of one variety, scarlet selfs, Mr. James Douglas was first, Messrs. Phillips and Taylor, Bracknell, being second.

Nine blooms of yellow ground Picotees: First, Mr. H. R. Taylor, Cheam, who staged Ophir.

For nine buff or terra-cotta selfs, Mr. J. Douglas was to the front with Mrs. Griffith Jones (apricot), winning the first prize and silver-gilt medal.

PREMIER BLOOMS.

Heavy Edge.—Seedling 200, from Mr. H. R. Taylor.
Wire Edge.—Thomas Williams, from Mr. Taylor.
Yellow Ground Fancy.—Leslie, from Mr. Blick.
Flaked Variety.—Torchlight, from Mr. Taylor.
Fancy.—R. Morton, from Mr. Blick.
Heavy-edged Picotee.—Her Majesty, from Mr. Blick.

NOTTINGHAM FLOWER SHOW.

A BEAUTIFUL DISPLAY.

THE Notts Horticultural and Botanical Society held their annual show recently in the Arboretum, and proved the largest that the society has ever held, and, with the additional attraction of the band of the Coldstream Guards, nothing but bright sunshine was needed to throng the Arboretum. The enormous increase of entries, which have jumped from 350 last year (itself a record) to 570, is put down to the larger sum offered in prize-money and to the ever-growing popularity of the show.

There was a short opening ceremony at one o'clock. Mr. J. Cumberland presided, and among those present were the Mayor and Mayoress (Councillor and Mrs. A. Ball), the Sheriff (Councillor T. Ward), Mrs. T. Ward, Alderman Sir John McCraith, Alderman Sir Edward Fraser, Mr. J. A. H. Green, (Town Clerk), Councillors C. J. Mee, A. G. Hines, C. Foulds, E. Mellor, H. Spray, Messrs. J. Richards, W. H. Carey, F. N. Hobson and J. H. Stringfellow.

The Mayor, in declaring the show open, said that during his year of office nothing had given him greater pleasure than to open that beautiful exhibition. He was reminded of his early efforts to make a fortune by the care of plants. He stuck to that task religiously, and lost his few pounds—(laughter)—and after that went in for something else. Nottingham was justly proud of its gardens. He was satisfied there were no amateur gardeners in the country to touch them, and few professionals to excel them. The exhibition that day was certainly one of the finest he had ever had the pleasure of seeing in Nottingham. The Mayor then declared the show open.

The attendance during the afternoon was naturally limited, owing to the persistent downpour of rain, but there were, nevertheless, a good many enthusiasts in the tents anxious not to miss seeing the flowers at their freshest.

The arduous task of preparing for the show was carried out by a committee, of which Mr. J. Cumberland is chairman, Mr. C. J. Mee, hon. secretary, and Mr. J. Stringfellow, assistant-secretary.

LIST OF AWARDS.

Group of plants, not to exceed 200 superficial feet.—First, Mr. W. Haslam, Chesterfield; second, Mr. W. A. Holmes, Chesterfield; third, Mr. W. Vause, Leamington; fourth, Mr. H. Rogers, Leicester.

Group of plants, not to exceed 100 superficial feet.—First, Mr. W. A. Holmes; second, Mr. W. Vause; third, Mr. W. Haslam; fourth, Mr. J. G. Small, Nottingham.

Decorated fireplace and mantel-shelf.—First, Mr. J. Shipstone, Nottingham; second, Mr. A. W. Stanfield, Nottingham; third, Mr. W. A. Holmes.

Stove and greenhouse plants.—First, Mr. W. Vause; second, Mr. W. A. Holmes; third, Mr. W. Bolitho, Kimberley; fourth, Mr. R. Bolitho.

Specimen foliage stove plant.—First, Mr. W. A. Holmes; second, Mr. W. Vause; third, Mr. R. Bolitho; fourth, Mr. W. Bolitho.

Flowering stove plant.—First, Mr. W. Vause; second, Mr. H. Rogers, Leicester; third, Mr. R. Bolitho.

Specimen foliage greenhouse plant.—First, Mr. W. Vause; third, Mr. A. W. Stanfield.

Specimen flowering greenhouse plant.—First, Mr. Butler Smith, Cropwell Butler; second, Mr. W. Vause; third, Mr. A. Tatham, Nottingham; fourth, Mr. A. W. Stanfield.

Six Dracænas.—First, Mr. W. Vause; second, Mr. W. A. Holmes; third, Mr. W. Bolitho.

One specimen Dracæna.—First, Mr. W. Vause; second, Mr. W. A. Holmes; third, Mr. W. Haslam.

Specimen Palm.—First, Mr. W. A. Holmes; second, Mr. J. G. Small; third, Mr. H. Rogers; fourth, Mr. W. Vause.

Dissimilar Ferns.—First, Mr. J. Shipstone; second Mr. R. Bolitho; third, Mr. H. Rogers.

Hardy Ferns.—First, Mr. W. Bolitho; second, Mr. A. Corah, Arnold.

Specimen Fern.—First, Mr. A. W. Stanfield; second, Mr. W. Buxton, Gedling; third, Mr. R. Bolitho; fourth, Mr. H. Rogers.

Specimen Coleus.—First, Mr. J. Shipstone; second, Mr. T. Morris; third, Mr. J. G. Small.

Caladiums (dissimilar).—First, Mr. W. Bolitho; second, Mr. W. Haslam; third, Mr. W. A. Holmes.

Specimen Caladium.—First, Mr. R. Bolitho; second, Mr. J. G. Small; third, Mr. T. Morris.

Zonal Geraniums (single plants).—First, Mr. J. Shipstone; second, Mr. T. Morris; third, Mr. A. Corah.

Zonal Geraniums (six pots).—First, Mr. H. Rogers; second, Mr. J. Shipstone; third, Mr. A. W. Stanfield.

Begonias (tuberous-rooted).—First, Mr. Butler Smith; second, Mr. G. Wright; third, Mr. A. W. Stanfield.

Specimen flowering Begonia.—First, Mr. Butler Smith; second, Mr. G. Wright; third, Mr. A. W. Stanfield; fourth, Mr. J. W. Lomas, Nottingham.

Gloxinias.—First, Mr. G. Wright; second, Mr. A. W. Stanfield.

Orchids.—First, Messrs. Mansell and Hatcher, Rawdon, Yorkshire; second, Mr. W. A. Holmes.

Fuchsias (dissimilar).—First, Mr. Butler Smith; second, Mr. J. Shipstone; third, Mr. A. W. Stanfield.

Specimen Fuchsia.—First, Mr. Butler Smith; second, Mr. J. Shipstone; third, Mr. A. W. Stanfield.

Table plants.—First, Mr. W. A. Holmes; second, Mr. W. Haslam; third, Mr. J. G. Small; fourth, Mr. A. W. Stanfield.

Malmaison Carnations in pots.—First, Mr. A. Tatham, Nottingham; second, Mr. A. W. Stanfield.

Carnations in pots.—First, Mr. R. Hallam, Nottingham.

Dinner-table decoration of fruits and flowers.—First, Margaret S. Down, Southport; second, Mr. W. E. Dennison; third, Messrs. M. Butcher and Swan, Nottingham; fourth, Mr. W. Buxton.

Liliums.—First, Mr. A. W. Stanfield; second, Mr. H. Rogers; third, Mr. W. A. Holmes.

Roses arranged on a table.—First, Messrs. T. Rothera and Co., Burton Joyce; second, Mr. J. Barrow; third, Messrs. W. Bardill and Co., Stapleford; fourth, Mr. P. Smith, Nottingham.

Roses (twenty-four dissimilar blooms).—First, Mr. J. Leake, Beeston; second, Mr. W. Lowe, Beeston; third, Messrs. W. Bardill and Co.

Roses (twelve dissimilar blooms).—First, Mr. W. Lowe, Beeston; second, Messrs. W. Bardill and Co.; third, Messrs. Townsend and Son, Worcester; fourth, Mr. J. Leake.

Roses (six dissimilar blooms).—First, Mr. W. Lowe; second, Mr. F. Hallam, jun., Nottingham; third, Messrs. W. Bardill and Co.; fourth, Mr. J. Barrow.

Tea Roses.—First, Mr. W. Lowe; second, Messrs. Townsend and Son; third, Messrs. W. Bardill and Co.

THE GARDEN.

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CONTENTS.

Is the Potato Degenerating?.. .. 397
Notes of the Week
Forthcoming events 398
Correspondence
A criticism of Sweet Peas 398
The Granite Pink .. 399
Ranunculus Lyallii 399
Judging vegetables at local shows .. 399
Gardening of the Week
For the South and South Midlands .. 399
For the North and North Midlands.. 399
Orchids
Notes about Oncidiums 400
Kitchen Garden
Winter and spring Carrots 400
Savoy Cabbages in spring 400
Rose Garden
Hedges of Rambler Roses 401
Seven perfect Roses in an East Yorkshire garden .. 401
Rose Minnehaha .. 401
Flower Garden
Sweet Pea chat .. 401
Flower Garden
A beautiful Carnation 402
Campanula Vidalii.. 402
Coloured Plate
Four of the newer Narcissi 402
Fruit Garden
A word about Figs 403
The Humboldt Nectarine 403
Gardening for Beginners
Garden work week by week 404
Retaining the buds of Chrysanthemums 404
Tomatoes 405
Cutting down herbaceous plants .. 405
The Town Garden.. 405
New plants 406
Daffodil notes from New South Wales.. 406
Answers to Correspondents
Flower garden .. 406
Trees and shrubs .. 407
Greenhouse 407
Rose garden 408
Fruit garden 408
Kitchen garden .. 408
Miscellaneous.. .. 408

ILLUSTRATIONS.

An old but free-flowering Tree Pæony 400
Carnation Mrs. T. E. Henwood 401
Campanula Vidalii 402
Four of the newer Narcissi .. .. Coloured plate
Nectarine Humboldt in a Chepstow garden 403
How to retain the buds of Chrysanthemums .. 404, 405

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

IS THE POTATO DEGENERATING?

I HAVE carefully considered my note on the above subject in The Garden of July 9, and think it merits no such criticism as is applied to it by your correspondent Mr. A. Dean. If to differ from him on the subject of the Potato is to imply that one is a pessimist, then we know exactly where we stand. Mr. Dean, no doubt, is an enthusiastic cultivator of the Potato; he has had an almost unrivalled experience, and confesses a cheery optimism as to the present condition of what he well terms "the noble tuber." Let him bear in mind, however, that there are others just as enthusiastic as he; but if they should happen to hold opinions on the subject that differ somewhat from his, they may fairly claim his indulgence and expect him to treat their views in an unbiassed manner. The facts given by your correspondent in your issue of July 23 do not, I think, after all, contradict anything I put forward in my first note, but, on the contrary, rather strengthen the arguments I used. Mr. Dean entirely ignores the serious trouble caused by non-sprouting, but admits that the modern Potato has been bred for its tuber-producing capacities, and not for worthless seed-apples. That this is correct I readily admit, but it is here that the mischief lies. Raisers in breeding with that particular object in view have overlooked the important fact that they are breeding out of some important fine-skinned, shallow-eyed modern varieties the natural ferment called "diastase," which is a fundamental necessity to the tuber for the well-being of the plant if it is to be reproduced by the common vegetative methods. I refer him to the authorities at Kew for confirmation of this statement, and also to the Board of Agriculture. Now, as to the question of the flowering of the Potato. Some varieties are undoubtedly very profuse in this respect; but, on the other hand, some of our most useful modern kinds never produce a flower. I would here observe that some of those kinds when introduced not only produced flowers, but seed-pods also, and to-day they produce neither, which is a sign that they are certainly not progressing. I am writing these notes in one of the finest agricultural districts in East Lothian—and Mr. Dean will admit, I hope, that Potatoes can be grown there—and I notice huge breadths of flowering varieties and also field after field without a single flower. I have been engaged for a month endeavouring to "self" by cross-fertilisation for seed purposes a certain maincrop Potato which is perhaps the finest of its type, hoping by this method to raise a crop of seedlings that will renew the grand constitution that this variety once possessed, for it is almost a necessity to the farmer. It is a good flowering kind, yet in field and garden I have failed to obtain the small necessary quantity of pollen to set a single flower, and I must have examined thousands of blooms. The keenest growers in the country admit that this variety, along with several other kinds, is degenerating, but by a judicious application of the Knight-Darwin law it is hoped to create a vigorous strain from the seed-pod by careful cross-fertilisation. Mr. Dean says seedlings are being raised all over the country, and this may be so; but are they being raised in a proper scientific manner? I respectfully put this question to your correspondent, and will be much interested in his answer. I have raised seedlings by thousands, and have not yet attained any success; and I can assure Mr. Dean I know what it means to obtain a cross between two given varieties that are deemed worthy of being dealt with in this manner. He instances Early Rose and Beauty of Hebron as two standard early varieties after an existence of forty years. I challenge this assertion. Avoiding names, I take up the catalogues of two of our leading seedsmen with whose names the Potato is specially identified; one is a famous English house, and the other is an equally famous Scotch firm. In their catalogues I fail to find the names of either of the kinds your correspondent mentions. Our leading market-growers in Scotland discarded them years ago; they are looked upon as back numbers, and entirely useless in competition with such a modern kind as Mid-Lothian Early, to give one instance only. I think these two kinds are an example to Mr. Dean that the Potato cannot be reproduced perpetually without showing signs of senility, and that their places must eventually be filled by more youthful stock. I am delighted to hear of the old early he saw at Wisley, and which crops so well after having been in cultivation for thirty, or more, years. It is a pity he does not mention its name, and I instance it as an example of the kind from which it is desirable to breed from to-day; we need its blood sorely. I am sorry to disagree

with him when he says that this specific sort, given suitable conditions, may go on for ever if desired. It might do so, but would the crop pay the grower? Does not Mr. Dean admit that cross-fertilisation with approved varieties will immensely improve our existing kinds? He seems to be peculiarly satisfied with present-day sorts: but the march of progress is ever onward, and he may take it that they will give place to new and better kinds. The flavour of some modern Potatoes is not so fine as some of the older sorts. Public opinion amply justifies this contention, and it may be questioned, after all, if we have such heavy croppers as in the old days. I have just turned up, as far back as they go, the statistical records of a noted East Lothian agricultural parish. Under the date of 1796 I find the Potato crop is recorded as averaging thirty to fifty tons per acre, and I give this excerpt for what it is worth. It strikes one as heavy, but there is no reason to doubt its accuracy. I am only sorry the names of the varieties grown are not given, but in any case they would be worthless to-day as far as a paying crop is concerned.

Then as to disease-resisting powers, the leaflet on the subject issued by the Board of Agriculture recommends growers not to rely on a variety because it is a new one, as many of the newer kinds are less reliable in this respect than some of the older sorts. I have mentioned authorities, to which I refer your correspondent, in support of my "sad sermon" in your issue of July 9, and would contend that my note was fully justified. I admit with Mr. Dean that, in spite of the weather and disease, we had a heavy crop last year; but then we had an almost record acreage under Potato cultivation. That fact must not be omitted. Potato raisers have ample room for improvement, and their work is onerous and difficult and requires a vast fund of patience. I am sorry to differ so much from such a veteran grower as Mr. Dean, and I will only be too glad if he can prove that I am wrong in anything I have submitted, but I assure him I have only the well-being of the "noble tuber" in view, and have no desire to belittle anything or anyone. Mr. Dean must review my last note under different spectacles.

Mid-Lothian. GEORGE TAYLOR.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 16.—Royal Horticultural Society's Exhibition of Flowers, Fruit, &c., 1 p.m. to 6 p.m. Lecture at three o'clock by Mr. A. C. Smith on "Lesser-known Grapes." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

August 17.—Shrewsbury Horticultural Exhibition (two days).

August 18.—East Oxford Horticultural Show.

National Vegetable Society.—A committee meeting was held on the 2nd inst. for the purpose of discussing the arrangements for the forthcoming exhibition which is to be held in the Horticultural Hall, Vincent Square, on Wednesday, September 28. It was decided that all vice-presidents subscribing £2 2s. should be allowed to stage non-competitive exhibits if they desired to do so. The charge for admission to non-members and those who are not Fellows of the Royal Horticultural Society will be 1s. from 1 p.m. to 6 p.m., and 6d. from 6 p.m. to 8 p.m. Tickets of admission will be sent to members and vice-presidents in due course.

Horticultural Club.—On Thursday, July 28, at the kind invitation of N. N. Sherwood, Esq., the members of this club spent a most enjoyable day at Prested Hall, Kelvedon, Essex, the seat of Mr. Sherwood, a party of about forty, including a considerable number of ladies, being most hospitably and pleasantly entertained. Leaving Liverpool Street Station by special saloon at 10.55 a.m., Prested Hall was reached about one o'clock by a short drive in brakes and other conveyances from Kelvedon Station to Prested Hall. The pretty grounds, diversified by streams and tastefully laid out, were first inspected, and then lunch was partaken of to the accompaniment of a military string band provided for the occasion, a gifted local elocutionist subsequently giving some recitations with great effect in the Essex dialect by way of local colour. After lunch, brakes being provided for the purpose, the party divided, the majority being driven some five miles or so to Merle, where a splendid mansion of the Tudor period was visited and an old church inspected containing some quaint tombs, surmounted by recumbent statues, of its founders, while the Rector kindly gave a most interesting summary of the history of the building. The rest of the party devoted their attention to the trial grounds in the vicinity, where a very large area of land is devoted to seed-raising and experimental studies. On the return of the two parties, tea was provided, and a return was made to Kelvedon Station to await the saloon carriage for the up journey. Fortunately, the weather was very fine. By general consent this proved to be one of the pleasantest outings the club has enjoyed, and a most cordial vote of thanks to the host was passed to that effect.

Presentation to Mr. Alexander Kirk. On the occasion of his retirement, after many years' service with the late Mr. J. Thomson Paton, Norwood, Alloa, Mr. Alexander Kirk received a presentation from a number of his friends at Alloa, this consisting of a purse of sovereigns and an umbrella, the latter bearing a suitable inscription. The presentation took place in the Royal Oak Hotel, Alloa, and the gathering was presided over by ex-Bailie Crawford, who spoke of Mr. Kirk's many high qualities as a friend and detailed some of the honours he had received at horticultural shows, recalling the notable victories with Grapes secured by him in open competition at the leading shows. Among these were the Edinburgh shows, that at the Crystal Palace, one in Dublin, with many others of less reputation. Mr. Crawford also referred to the other honours gained by Mr. Kirk, honours which had made Norwood Gardens famous all over the kingdom.

Sweet Pea Scarlet Monarch. — Mr. William Deal of Kelvedon informs us that his new waved scarlet Sweet Pea, grown in the National Sweet Pea Society's trials at Guildford under No. 104, will be sent out as Scarlet Monarch. We referred to this variety when describing the trials in our issue of July 23.

A beautiful Rose. - Messrs. William Paul and Son, Waltham Cross, send exquisite flowers of the Tea Rose Hugo Roller, which is one of the most remarkable of the Tea forms raised of recent years. The colour is most distinctive. The outer petals are wholly of a warm rose colour, which is in beautiful and strong contrast to the creamy centre. The Rose was represented in a coloured plate on April 11, 1908. It has strength of colour, growth and fragrance—three attributes one looks for in the Rose, but sometimes they are wanting.

Bletchley and Fenny Stratford Horticultural Society.—The first annual show of this society was held in Bletchley Park, the beautiful country home of H. S. Leon, Esq. (which is close to the station), on Bank Holiday, August 1. The day proved fine, the show a great success, and the attendance for a first show phenomenal, it being stated that 20,000 people were present. The foundation of this society has been laid on a broad and, we think, a successful basis. The schedule provides classes and prizes not only for the promotion of a greater interest and application in the growth of vegetables, fruit and flowers among the amateurs and cottagers of the county, but prizes are also offered in other branches of home industry, which will afford pleasant work and recreation during the long winter months, in such useful and artistic work as pillow lace-making, plain needlework, drawn thread-work, embroidery, cake-making, photography, best-cropped allotment gardens, best-kept cottage gardens, best-dressed poultry, eggs and butter, also for children's school gardens, so that interest is thus awakened and stimulated in a great number of industrial subjects of work and recreation, which is bound to exercise a far-reaching influence for good in the lives of those who are privileged to co-operate in the work, whether as officials, exhibitors or simply lookers-on. Sports, amusements and music were also provided on a generous scale. But perhaps what added most to the success of the day was the permission so generously granted by Mr. Leon for the public to visit and roam through his beautiful and well-kept garden at their own free will without let or hindrance. The huge, well-dressed crowds and happy faces one met in the grounds bore eloquent testimony to the hearty appreciation of the privilege so kindly granted. The committee and all associated with the work are to be heartily congratulated on the successful results of their labour. The whole of the prize-money offered amounted to £235, but of this £118 was devoted to horticultural exhibits. The secretary is Mr. Thomas Best, Bletchley.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A criticism of Sweet Peas.—As a constant reader of THE GARDEN I trust I shall be allowed to protest against the enormous amount of space devoted to the Sweet Pea. It reminds me of the Potato gamble, when Eldorados were selling at £10 per ounce, all of which was engineered by the trade. The same applies in this case, only the traders are getting hopelessly mixed up. We shall soon have the varieties running into thousands; but when is it all going to end? Really we have too much of this Sweet Pea nonsense, to the detriment of all lovers of flowers in general. I am not opposed to this beautiful flower; in fact, I grow a very large quantity, namely, 300 pots. At the same time, I refrain from pressing their claim for premier honours, remembering that every gardener or amateur has not become a victim to this over-boomed Sweet Pea craze.—STATICE. [We print our correspondent's letter, although we do not agree entirely with his opinion. Perhaps other readers will give their views on the subject. —ED.]

An old Tree Pæony.—I enclose a photograph (reproduced on page 400) of a Tree Pæony in my garden which is remarkable for its size and age. The exact age is uncertain, but it is known that the tree was a fair size eighty years ago. In

1905 it had about 190 flowers; since that time the numbers have been as follows: 1906, 241 flowers; 1907, 278; 1908, 273; and 1909, 212. This year they were not counted, as a great many were cut by a late frost. The photograph was taken in 1908.—ROBERT GURNEY, *Ingham Old Hall, Stalham, Norfolk.*

The Granite Pink. — A charming little alpine of recent introduction is the Granite Pink, Dianthus graniticus, which is evidently nearly related to our native Maiden Pink, D. deltoides; but whereas the Maiden Pink closes its flowers in dull weather and at dusk, the newcomer keeps them open in all weathers. In addition, the flowers are slightly larger, of a better shade of pink, and the central zone is more clearly defined. The Granite Pink thrives in a sunny position on the rock garden, where it soon makes a spreading mat of pleasing green foliage. Seeds are freely produced. —N. G. HADDEN.

Ranunculus Lyallii.—Last November I made an appeal in THE GARDEN to our Colonial friends for notes concerning the above rare plant. I had an agreeable surprise when I perused THE GARDEN for July 30 to find a beautiful illustration of this plant from a photograph sent by Mrs. Isard of Whanaka, New Zealand. What struck me on reading the notes was the reference to the hardiness of this plant. While inspecting some new and rare plants of a Christchurch (England) firm at the Temple Show last May, I enquired if they still cultivated this Ranunculus (it being the only firm whose catalogue contains it, at £1 1s. each), and the man in charge told me he thought the plant too tender, and that it did not flourish with them as they would like. Surely we should not let such a good thing drop; even if the plant is tender the possibilities of the hybridist are very extensive, and it would be interesting to know whether our climate is congenial to its growth. I intend procuring some seeds from my sister (who resides at Invercargill) to experiment with, and if successful shall send the result to THE GARDEN. Any further remarks on this subject will, no doubt, be welcomed by many besides myself.—J. E. DAVIES, *The Gardens, Talygarn.*

Judging vegetables at local shows.—I would very much like to make a suggestion respecting the above subject. I think it would be a good plan if the secretaries of local societies were to purchase a copy of the Royal Horticultural Society's Code for Judging Vegetables and state in their schedules the number of points to be given for each vegetable and the reasons for giving them. I think it would be much better for the judges themselves and much more satisfactory to the exhibitors. It is very discouraging to an exhibitor, after he has been most careful in selecting what he considers the best vegetables for the table—that is to say, giving preference to quality before size—to see the award given to large, coarse, ugly specimens, such as a large Vegetable Marrow, which is often nearly ripe and frequently the entire crop of one plant, and large, ugly Beetroots, much too coarse to guarantee good flavour and colour. Points ought also to be given for arrangement. I have been to shows sometimes where the points have been totalled up and placed upon the exhibits, and I have looked for those for arrangement, but often they have been conspicuous by their absence. I never like to criticise any judge's decision, but really I do think very often there is just cause for comment, and I also think that if it was clearly stated in the schedule that quality and not exceptional size was essential, we should see fewer of the large, coarse vegetables that are staged at the present time.—EDWARD MONTAGUE, *The Gardens, Grey Court, Ham, Richmond.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

MALMAISON CARNATIONS.—Assuming that these were layered as advised earlier, they will by this time have made sufficient roots to allow them to be potted. Sever the layers from the old plants two or three days before taking them up. Three-inch pots should be used, and soil consisting of one part loam, one part leaf-soil and one part sand suits them very well. After potting, the plants may be placed in a cold frame kept fairly close and slightly shaded from the hot sun. Syringe daily till fresh root action begins, and when the roots get round to the sides of the pots the plants should be moved to a cool, airy greenhouse. If they are placed on shelves, so much the better.

Perpetual Carnations.—The most forward batch should now be placed in the flowering quarters. The best place for them is a cold, well-ventilated greenhouse. The plants will require to be cleaned and thoroughly examined in case there is any rust on them. When this appears the affected portion of the leaf must be cut out and burnt.

Schizanthus.—A small quantity of seed may be sown to provide a batch of early flowering plants. Fill a 6-inch pot with fine soil and sow the seed thinly, placing it in a greenhouse to germinate, after which time a cold frame is the best place in which to grow the plants. Slugs and snails must be carefully looked for, or the young plants soon disappear. The cooler the plants are grown the better specimens they will make.

HARDY FRUITS.

Gooseberries.—Plantations that are protected by a wire framework should be thrown open as soon as the fruit is finished. Parts of the sides or ends must be removed to allow the buds free access. There is sure to be an abundance of grubs and caterpillars.

Wasps.—Whenever the nests are located they must be destroyed at once. Cyanide of potassium is the easiest and quickest medium to use for their extermination. Of course, it is a deadly poison, but it is very handy for killing these pests.

ROCK GARDEN.

The work in this department at this season of the year mainly consists in keeping the plants clean, top-dressing, weeding, &c. All decayed flowers should be cut off as soon as possible. Cuttings should be taken of such tender plants as Mesembryanthemums, Convolvulus mauritanicus, Astericus maritimus, Antirrhinum glutinosum and A. Asarina, and all others that will not stand the winter. Gather and sow the seeds of Primulas sikkimensis, Veitchii, cockburniana, japonica and pulverulenta. Primulas marginata, viscosa and its varieties, and all others growing in crevices should be examined, and if found to require repacking should be attended to at once. These latter varieties of Primulas have a tendency to make a lot of stem growth, and therefore must have fresh stones and grit placed round them to prevent the plants getting loose. Dianthus, Campanulas, Erinus, Aubrietias, &c., and others that have been raised from seed and transplanted into boxes may be potted, using small pots and poor, gritty soil.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

PRICKLY SPINACH.—Although some writers maintain that the ordinary round-seeded Spinach is as hardy as the prickly variety, I have never found this to be the case in our Northern gardens. To ensure plants large and strong enough to stand over the winter, seed should be sown within the next ten days. Allow 15 inches between the rows, and scatter the seed rather sparingly. If sown thickly the plants will be weakly and drawn, and the first severe frost will most likely kill the whole sowing. If it does come up too much crowded, thin out a little before frost appears.

Celery.—In the North we have had a very dry summer, and unless Celery has been well watered its growth will have been very slow. A good soaking should be given now, at all events, if there is the least fear of dryness. Immediately afterwards give a partial earthing up. Some imagine that early earthing up of Celery results in a soft growth, so that it gets killed early in winter. I have tried leaving the earthing until late, and must say that the crop, besides being of inferior quality, was not one whit better than that in the trenches given early earthing.

PLANTS UNDER GLASS.

Cyclamen.—Many growers fail with these fine plants simply because they sow the seed at the wrong time. After a long experience and careful study of this plant I have come to the conclusion that August is the proper season to sow—about the middle of the month for preference. Use perfectly clean, well-drained, shallow pans and a light compost. Three parts loam, two parts brown peat, two parts sweet leaf-mould and one part sharp sand is about right. Make moderately firm and scatter the seeds very thinly. Cover with about one-eighth of an inch of the soil. Give a gentle watering and cover with a sheet of glass and damp moss. Set in an intermediate temperature, and as soon as growth is apparent raise them quite close to the roof glass. While over-watering is disastrous, the soil on no account must be allowed to get dry. Shade from all bright sunshine. Old corms should be repotted at once.

FRUIT GARDEN.

Strawberries.—Where it is intended to make a new plantation of Strawberries, no time should now be lost in finishing this work. To have really fine Strawberries good cultivation is imperative. It pays to bastard trench the ground, adding a generous quantity of well-rotted manure. The Strawberry delights in a firm root-run, so if the ground is at all soft it must be well trodden down before planting takes place. If the runners are obtained from one's own stock, they should be lifted with a ball of earth attached, for when this is done the plants onlv receive a slight check. Of course, if layering into pots or pieces of turf, as advised in this column a few weeks back, has been practised, the plants will grow away at once. So many fine varieties are now on the market that one feels chary of advising as to which to plant. Where it succeeds Royal Sovereign is hard to beat. Here Leader is by far a finer and more reliable sort. Fillbasket gives a wonderful return, just following Leader. Countess, if not a great cropper, is of excellent quality and a fine, firm, bright-coloured fruit of good size. On heavy soil the old Duke of Edinburgh has few equals, and Elton Pine for the latest crop is still very dependable. For jam-making Keen's Seedling, Garibaldi and, if it can be procured, Wilson's Albany are unequalled.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

ORCHIDS.

NOTES ABOUT ONCIDIUMS.

THIS is a large family of considerable horticultural merit, and contains many useful plants for exhibition and decorations, and I would especially mention the Brazilian group, which embraces O. crispum, a rich chestnut brown with yellow and red spots; O. Forbesii, known as the gold-laced Oncidium; while O. concolor produces drooping scapes of bright canary yellow flowers. To show this plant to the best advantage it should be suspended from the roof and so brought on a level with the eye, when its beauty is doubly enhanced; in fact, where space is limited, it may be grown in such a position throughout the year. Other good Orchids are O. dasystyle, a pale yellow blotched with reddish brown, and the superb O. Gardneri, a supposed natural hybrid between the last-named and O. Forbesii. Then we have the free-flowering O. flexuosum, which is largely cultivated by the miners in the North of England and numerous amateurs, who stage them at local shows. Others include O. curtum, O. spilopterum, the lovely O. marshallianum, O. sarcodes, O. tigrinum and the popular O. varicosum, with its superior form named O. Rogersii, which should be procured whenever obtainable.

From the West Indies large clumps are imported of O. altissimum, one of the first Orchids introduced to this country, and the long spikes of yellowish blooms vary in height from 3 feet to 7 feet. All the above will thrive in the intermediate division or where the winter temperature never falls below 50° Fahr. One of the finest Oncidiums in cultivation is O. macranthum, a cool-hous Orchid, having long, rambling scapes, and to prevent their being injured in any way they should be trained along the roof or around two or three small stakes. Whenever this plant requires repotting, it ought not to be allowed to flower, as it emits new roots at the same time, and, consequently, the pseudo-bulbs would shrivel. A suitable companion to O. macranthum is O. superbiens, which needs the same treatment.

Among the warm-house species are O. lanceanum, O. luridum, O. kramerianum and the remarkable O. Papilio, which is almost a perpetual bloomer, for after the first flower fades a second one is formed just below the ovary, and so a succession is kept up for an indefinite period; but this is not advisable if we want to preserve the plant, in which case eight blooms are sufficient. One of the principal causes of such rapid decline in vigour with many of the Oncidiums is undoubtedly their free-flowering characteristics, and for this reason weak plants must have their spikes removed directly they are noticed or only permitted to develop about two flowers. When

PURCHASING ONCIDIUMS,

recently imported plants should be chosen; then we are sure to secure a quantity of spikes before deterioration begins. They can either be semi-established or just as they are received from their native habitats. For beginners the former are suggested, but those possessing a knowledge of Orchid-growing should try a few of the latter, which must be thoroughly cleansed when they arrive. We often see Oncidiums tied to pieces of bark in Teakwood baskets and other ornamental relics of bygone days, but for general purposes the common flower-pot is best for the larger kinds, and pans without side holes will suit the lesser varieties, of which O. cheirophorum may be cited as an example. Whichever it is deemed expedient to use, each must be filled one-fourth of its depth with drainage, and before beginning to actually repot a thin layer of rough peat should be arranged over the potsherds. The soil is made up of Osmunda or Polypodium fibre, peat, chopped sphagnum moss (which ought to be free from all weeds and rubbish) and partly decayed Oak or Beech leaves in equal proportions, with a sprinkling of coarse sand added to render the whole porous. Although leaf-mould has been discarded to a great extent, I know of no genus that derives so much benefit from it—providing it is not too decomposed—when incorporated with other ingredients, as the Oncidiums. With such a variable set of plants the repotting takes place at almost any period of the year, but it should be done when fresh roots appear at the base of the current growth if it has reached the edge of its pot or pan. Careful watering is advised at all times, particularly after being disturbed at the root, when it is only needed in small quantities; but directly the pseudo-bulb is formed the supply is increased and the plants kept moist till the bulb is fully matured, and then after flowering a rest is allowed under somewhat drier conditions.

SENTINEL.

AN OLD BUT FREE-FLOWERING TREE PÆONY. (*See page* 339.)

THE KITCHEN GARDEN.

WINTER AND SPRING CARROTS.

CARROTS are often treated as spring-sown vegetables, and the result, which I have before pointed out in THE GARDEN, is large, coarse roots with hard cores. Such are very indigestible, and the roots are often then condemned as useless. To obviate this I advise several sowings during the season, three at least, to get young, sweet roots that are so much more useful, and which are grown easily and are readily prepared. My note now more concerns the winter and early spring supplies, and for this work I advise sowing at any time from the end of July to the middle of September.

In the South, with a light sandy soil, I always sowed a rather large area for late winter and spring supplies early in September. With a more retentive soil I advise sowing a little earlier, and as these roots winter in the soil, it is necessary to make it so that slugs and worms are kept at bay by top-dressing freely with soot, wood-ashes, lime or burnt refuse, and well forking over the surface several times before sowing. Select a Short Horn variety, such as Sutton's Early Gem, Veitch's Scarlet Model or the Early Nantes. All of these are of good quality. The Carrot is not readily injured by frost if not coarse or large, and will give a supply of young roots well into the spring. These may be drawn as required for use; but in very severe weather it may be necessary to cover a portion of the plants with long litter.

SAVOY CABBAGES IN SPRING.

THE Savoy Cabbage is usually treated as an early autumn vegetable, but as we have a wealth of good autumn vegetables, I would point out the value of this sort when grown for a much later crop. By growing such varieties as Sutton's New Year there should be no difficulty in having good heads well into the spring. Savoys planted specially for late winter use are of better quality than those grown for the early autumn, and I do not advise planting the small early forms of Green Curled, as these and the Early Ulm type split badly in severe weather, whereas the New Year, though much larger, is very hardy and remains solid till April if planted on an open, exposed border and not given much manure; indeed, I advise planting in land that was manured for a previous crop.

The late Savoys can often be planted after Potatoes, Spinach, Turnips or early Carrots, and the plants should be as dwarf as possible, rejecting long, drawn seedlings. It is useless to sow in March for late supplies; two months later is quite early enough, and at the time of sowing scatter the seeds thinly, so that each plant may develop properly.

G. WYTHES.

THE ROSE GARDEN

HEDGES OF RAMBLER ROSES.

ONE could wish the lovely Dorothy Perkins would produce its blooms about ten days earlier than it does, so that we could have its delightful colouring upon arches, pillars and standards when the greatest display is made by the majority of the varieties in our modern Rose gardens; but it is ever welcome, even though somewhat late in appearing. We are all accustomed to see this Rose upon arches and pillars as weeping standards, and upon walls, but as a hedge Rose it is not yet so very frequently met with. But what a delightful effect it produces when grown as a hedge plant! Its profusion of bloom, its excessive vigour and, above all, the charming colouring, produce an effect truly magnificent. So also would the beautiful sports that have originated from it, such as White Dorothy, Lady Godiva, Dorothy Dennison and Christian Curle. Superb though the effect is upon practically uncared-for plants, it is doubly so when the ramblers have received manurial aid and been kept free from overabundant growths. The sprays of bloom, too, may be rendered more showy if the growths that usually appear just near the spray of bloom are cut back to one or two eyes.

I find that stout Spanish Chestnut posts and stout galvanised wire stretched between answer admirably as supports to the trailing growths. Whether a 5-foot screen is wanted or one twice that size, this delightful Rose will quickly supply all that is required, and one might even raise up long individual growths at intervals and attach them to upright supports in a most effective manner.

Other wichuraiana Roses that are very effective in the mass are Leontine Gervais, a real beauty, with coppery salmon buds and paler blooms of exquisite sweetness, flowering from early July until well-nigh the middle of the month; Elise Robichon, Réné André, Hiawatha, wichuraiana rubra and others. Then from the multiflora group we may have gorgeous hedges of Crimson Rambler, which should be toned down by a bordering of White Pet, Schneewitchen or Katherina Zeimet, that would continue flowering from June to October; Mrs. F. W. Flight, wonderfully effective; Blush Rambler, one of the most charming, with huge clusters of Apple blossom-like flowers; and Non Plus Ultra, a sort of mulberry red form of Crimson Rambler. I am rather disappointed with Goldfinch. Its buds are beautiful, but the open flowers pale to nearly white, at least they do with me, although when I first saw this Rose exhibited even the open flowers were of a golden colour. Shower of Gold will most decidedly be our best golden yellow sort, and its foliage is not less charming than its pretty double blooms. This, of course, is from a wichuraiana variety crossed probably with W. A. Richardson. Tausendschön will be a very popular sort for hedge work, and so also will Excelsa, a sort of scarlet-crimson Dorothy Perkins. A very dainty colour is found in Bagatelle, almost a pale mauve, with splendid large clusters.

American Pillar will also make a charming hedge Rose, and, flowering as it does from the second week in July, its big clusters of single blooms are welcome, seeing that most of the single-flowered kinds have finished flowering at that time. I was almost forgetting Rubin (ruby red) and Grüss an Zabern (snow white), but they are certainly two of the best, the latter flowering quite early. Rubin commences about the last week in June and continues the display until towards the end of July.

ROSARIAN.

A WHITE BORDER CARNATION: MRS. T. E. HENWOOD. (*See page* 402.)

SEVEN PERFECT ROSES IN AN EAST YORKSHIRE GARDEN.

A ROSE which succeeds admirably in one situation may be a dismal failure amid other surroundings. A study of horticultural notes made in the particular locality should be followed before planting if disappointment and much waste of time and trouble would be avoided. The following Roses have proved hardy and thoroughly at home, and their blooms this season have been, and are still, the admiration of all beholders.

Frau Karl Druschki (Hybrid Perpetual).—Very large, pure white. The buds have a reddish colour before they open, which disappears in the perfect flower.

General Jacqueminot (Hybrid Perpetual).—An old favourite. Brilliant red and very sweet.

Hon. Edith Gifford (Tea).—Colour varying from salmon rose in the centre to almost white on the outer petals.

La France (Hybrid Tea).—Beautiful pink colour and of unsurpassed fragrance. Too well known to need description.

Mme. Abel Chatenay (Hybrid Tea).—Rosy salmon carmine, shaded with pale vermilion rose. Makes beautiful sprays of perfect form and colour.

Mrs. John Laing (Hybrid Perpetual).—Large, pink. A very solid and handsome Rose.

Zephyrine Drouhin (Bourbon).—Very bright silvery pink flowers. Sweet, free-flowering and hardy.

R. B.

ROSE MINNEHAHA.

THIS is one of the best of the Japanese or wichuraiana Roses, especially when one takes the individual flower. Although the flowers are not larger than those of Lady Gay, they are, nevertheless, equal in size. But they are of more refined shape, and the colour is fulgent rose in the centre with paler outer petals. Moreover, the flowers do not fade, and when one considers this, together with the huge clusters of bloom, it is without a doubt one of the best introductions of Mr. Walsh, to whom we are indebted for so many good things. The growth of Minnehaha is quite as vigorous as Dorothy Perkins, with larger and paler foliage, but very glistening. Growers of these beautiful ramblers should remember that the colouring of most of them when grown under glass is quite different to what it is under natural conditions outdoors, so that what may be a pale flesh pink under glass may be quite a deep rose pink in the open air.

P.

FLOWER GARDEN

SWEET PEA CHAT.

ENJOYABLE OUTINGS.

THE annual excursions inaugurated some few years ago by the National Sweet Pea Society have been successful from the start, but there is not the slightest doubt that they are becoming more and more popular, and that if they increase in volume with the same rapidity in the near future as they have done in the immediate past they will be gatherings of great bulk. The favour in which they are held by the members is most probably due to the fact that pleasure and profit are so intimately associated—the participator knows beforehand that not only will the expedition prove a happy one, but that it will also be beneficial from an educational point of view. The places visited this year—as a matter of fact, in the busy week of the great show—were *The Times* Experimental Station, Sutton Place, Guildford, of which Mr. Charles Foster has control; Messrs.

Hurst and Son's seed trial grounds, Feering, Kelvedon; and Messrs. Dobbie and Co.'s seed farms, Mark's Tey.

On the first day the official trials of novelties and stocks were inspected, and, satisfactory as these have been since their inception at Reading, there has never been anything to equal the general excellence of the results that were achieved this year at Sutton Place. Mr. Foster had managed everything in splendid style, and there was far more to learn than the ordinary mind could grasp in the limited time at disposal; but the critical visitors by no means neglected their self-imposed task. After work came play in the form of a luncheon most generously provided by Lord and Lady Northcliffe, Mr. and Mrs. Foster acting as host and hostess for the day. Subsequently the gardens of Sutton Place, so admirably managed by Mr. J. Goatley, were closely inspected and immensely admired for their varied charms. These gardens, it may be added, are the especial hobby of Lady Northcliffe, who spares no efforts to increase their beauty.

On the following day the travellers made first for Messrs. Hurst and Son's grounds, where were to be seen the complete trials of a great wholesale seed house. Naturally the Sweet Peas proved the particular attraction, but those who had sufficient energy left afterwards looked over many other kinds. Mr. N. N. Sherwood, V.M.H., was the genial and generous host. The final task was to proceed thence to see Messrs. Dobbie and Co.'s trials and bulks of stock grown for seed. The plants are grandly grown by Mr. Andrew Ireland, and the visitors were more than delighted with what there was to see. They were entertained to tea by Mr. William Cuthbertson, and later passed by devious ways homewards. The opinion was unanimous that everything had been most delightful.

DOBBIE'S NOVELTIES.—One almost regrets that Mrs. Andrew Ireland is not still entitled to be called a novelty, for there can be no doubt that it is vastly superior to many that have been introduced since, and has more than maintained its early promise of being one of the finest varieties in cultivation. Mrs. Hugh Dickson is akin to Mrs. Henry Bell, but immeasurably its superior in all respects; the plant thrives magnificently and carries its superb blossoms perfectly. It was one of the four varieties which received an award of merit from the floral committee of the society this year. Masterpiece was similarly honoured. Although there are now several varieties that are close to it in colour, it is undoubtedly reliable, which cannot be said for all the others, and it has the blessed habit of throwing a fine proportion of fours. The third novelty to be honoured by the powers that be was Arthur Green; it is a waved maroon of good size, substance and colour, and the plant is a splendid grower, but we shall want to see it in general cultivation before deciding whether it will prove so markedly an advance over its predecessors in this now somewhat extensive group. Thus it will be seen that this firm secured no fewer than three out of the four special awards. Sunproof Crimson has come well up to expectations and justifies its name; but Isobel Malcolm might have been allowed to live its life as Clara Curtis, of which there is no disputing the fact that it is a grand stock. Edrom Beauty similarly could, without injustice, have taken rank with Helen Lewis, of which it strikes the casual observer as being simply a magnificent strain, but it is a shade which everyone likes and wants, so let us hope it will stay. SPENCER.

A BEAUTIFUL CARNATION.

ONE of the most interesting exhibits at the recent National Carnation and Picotee Show was the variety Mrs. T. E. Henwood, which won a first prize, the exhibitor being the well-known grower, Mr. James Douglas of Great Bookham. As the illustration on page 401 suggests, the flowers are of perfect form, with broad petals, which are held firmly within the calyx. It is a beautiful variety, strong and in all ways excellent.

CAMPANULA VIDALII.

CAMPANULA VIDALII.

WHILE this very remarkable species has no pretensions to complete hardiness, it is so unique in its character and possesses so many points of merit as a free-flowering perennial that it is worthy of the attention of all who take an interest in plants of exceptional beauty and charm. It is doubtless because of this lack of hardiness in a race teeming with species and varieties possessing this characteristic in a marked degree that good flowering examples are rare, the finest example I have ever seen being that shown in the accompanying illustration. This handsome flowering specimen was about 3 feet in height, having a spread of flowering branches almost as great, and when exhibited by Messrs G. and A. Clark, Limited, Dover, at the Carnation Show on the 26th ult. was carrying some eighteen of its spikes of flowers in various stages of development. The largest example displayed was a specimen of three years old, of suffrutescent habit, having an arborescent stem some 8 inches high, above which the rosette of fleshy, oblong, spathulate entire, slightly serrated leaves were seen. Of the character and freedom of flowering the illustration speaks for itself.

The flowers are pendulous, somewhat viscid to the touch, and unique in their thick, glossy, waxlike texture. In form they are between urceolate and campanulate, distinctly contracted below the middle, and, spreading below this point, assume a more campanulate form. In length the flowers vary from 1½ inches to 2 inches. Internally the flowers present a striking feature by reason of the broad, bright orange-coloured ring which surrounds the disc, but which, unfortunately, is only seen by raising the flowers. The species has long been known to cultivation, having been introduced from the Azores some sixty years ago. All the plant asks for in cultivation is a greenhouse temperature in winter. In summer it may be bedded out in the garden, where its conspicuous beauty would be in striking contrast with other members of the genus. The plant may be readily increased from seeds or by cuttings, and, intelligently treated, will last for several years. E. H. JENKINS.

COLOURED PLATE.

PLATE 1406.

FOUR OF THE NEWER NARCISSI.

CIRCLET, ARMOREL, SOUTHERN STAR AND FELICITY.

IF I had not been told where these four Daffodils came from, I think I would have been able to guess that they came from the now well-known Kidderminster firm of Messrs. Cartwright and Goodwin. Both Felicity and Circlet were, I believe, their own introductions, while their delightful bunch of Southern Star at the Forced Bulb Show last March was a revelation to some of us as to the extreme beauty of these red-edged cups for growing under glass. A flower that I must couple with it is Eyebright. This comes very near to a Poet in its general look, while Southern Star at the other end of the small-cupped scale has more affinity to such a flower as Branston. the white-petalled Barri conspicuus. Both are excellent under glass.

Armorel, as may be surmised from the plate, belongs to the Engleheartii or "large-eyed"

FOUR OF THE NEWER NARCISSI

CIRCLET

ARMOREL

SOUTHERN STAR *(centre)*

DAFFODIL FELICITY

section. It has a starry perianth and is the earliest of this type to bloom. It has an apricot yellow eye edged with reddish orange. Circlet is a real florist's flower that every exhibitor ought to have in his collection. Its broad, round, overlapping perianth segments of a rich ivory white shade form a fine setting for the fluted eye, which in colour resembles that of Armorel. The charm of Felicity lies in its colouring. The plate suggests what it is like, and gives a very good idea of the tone of yellow of which it is composed. It is a very early variety out of doors, and, being dwarfish in growth, seems admirably suited for a front position in a herbaceous border.

Having now described the flowers, let me say that I am very glad the Editor has chosen this particular plate. We are not all of us millionaires; and we have to think before we spend even two or three pounds on our hobby. The whole four flowers can be bought for 23s. 6d,; or if Fairy, which is a very nice trumpet indeed and more of a show flower than Felicity, were substituted for it, I think a postal order for a sovereign would bring anyone the four from Messrs. Cartwright and Goodwin's store-house at Kidderminster. I suggest it as "an experiment well worth trying," only the quotation ought to be in Scotch, and I cannot manage it.

Established in 1907, this firm has made amazing strides, and the 1910 list, when it is in their clients' hands, will be found fuller of good things than ever. I had hoped that incorporated with it there would be the promised second edition of "My Latest Hobby," or, if I might suggest an alternative title, "The Hybridists' Vade Mecum," for that is what it really is. However, we must wait; it is not to be issued just yet. Doubtless "the large number of notes dealing with the subject that they have collected" take a large amount of time in marshalling and arranging, and both the principals of the firm are very busy men. Their catalogue has many interesting and unique features. It contains an accurate list of the flowers that they won their prizes with at the Midland Show at Birmingham. It has lists of varieties suitable for naturalising and growing in pots. It gives a large selection of collections of both high and low priced bulbs. And in the individual descriptions of the flowers there is not only the fullest information given of their idiosyncrasies and appearance, but we are also told their value as seed or pollen parents.

The Editor, in fulfilment of his promise of March 19, has published this interesting plate, and in doing so I consider he has called the tune of this article. That is why I do not say anything about such plants as King Cup, Lord Medway, Chloe, Matthew Arnold, White Star, Royal Sovereign, Red and Gold, Ethereal, or any other of the high-class and expensive flowers which we especially associate with the Kidderminster firm. I will, on the contrary, mention some good cheap or comparatively cheap things which we find in their list.

Taking trumpets first, Fairy, already alluded to in these notes, is, as the firm says, "one of the greatest acquisitions to this class." Its fine, broadly expanded and recurved trumpet attracts everyone's notice and gives the flower that look of importance and grandeur which is so marked a characteristic of Glory of Leiden. It is a variety that does very well in the garden, but perhaps its special niche is in pots. Gold Finch is a flower of a very deep shade of yellow, with a star-shaped perianth of the same rich tone. I thought it very striking at the early March show this year. Alice Knights is a pretty white and cream, very early and floriferous. It is still expensive, the price this year being 10s. Passing on to the "cups," the flower to be especially noted is Evangeline. I consider this one of the most beautiful and useful Daffodils that we have. It has the same even, symmetrical shape that we see in Homespun. It is an excellent doer and very effective in a garden. Ayacanora is a very pretty pale edition of Frank Miles, rather larger, however, and decidedly early.

Solfatare is a magnificent drooping flower somewhat like Lady Margaret Boscawen in shape, but of a peculiar lemon yellow. I had not noticed it until this year, when I saw it in Mr. Kingsmill's garden and was very much taken with it. Castile is a flower that is becoming most popular, partly on account of its uniquely coloured orange cup and partly because it is found to do so well. I can confidently recommend it both for the garden and also for pots. Amazon is a shapely creature, one of the old type of Leedsiis and quite one of the best at the price (3s. 6d. each) for the show table. Christalla, which is a seedling of Minnie Hume, is a capital cheap (5s. each) giant Leedsii to get for show purposes. Alton Loche and Robert Browning are two small "cups" which are specialities of Messrs. Cartwright and Goodwin. The latter (5d. each), they say, gives seedlings of very high character. It has certainly a most extraordinary deep, dull coffee-coloured cup. Of the eyed varieties of low price, let me advise everyone to get a few of Pole Star. It is a late bloomer, and has a medium-sized pale yellow centre, with a pure white reflexing perianth. Poets and doubles are strong features in the list, but the new and best ones are decidedly expensive. I am glad, however, to see that my favourite Poet, Comus, is one of the two varieties distinguished by a note in italics "Highly recommended." On reading over these notes I find I have never mentioned the early flowering red cups. Blackwell is getting better known now, but kinds like Dolores and Marigold, with their larger Gloria Mundi-looking cups, have not very long made their appearance. If they prove to have good constitutions and to bear the rather rough treatment of ordinary gardens, they will be very valuable and pleasing additions to our gardens. JOSEPH JACOB.

THE FRUIT GARDEN.

A WORD ABOUT FIGS.

THE Fig is a long-lived tree, and, as a tree, not at all difficult to grow; but unless the shoots are manipulated in a proper way, fruits are not freely borne. Although it is advisable to grow these trees in a rather poor soil, some feeding should take place at this season, also pruning. Outdoor trees will ripen their fruit during the latter part of August and throughout September. Twice each week from now to October good doses of liquid manure of medium strength must be applied to established trees; the manure-water may be given immediately after rain has fallen or during showery weather. In the absence of rain clear water must be given first. The soil is often found to be very dry around the roots of the Figs, and unless it is well moistened with clear water first, stimulating foods will not prove very helpful. The stimulants given now will have a good effect upon the fruits, causing them to swell and become very juicy. The winter pruning of Fig trees is rarely satisfactory, as very strong shoots develop afterwards, and such branches do not ripen sufficiently in this country to bear fruit. Of course, it is absolutely necessary to prune the trees—those that make normal growth—and the best time to do this is while the leaves are on. Very strong young shoots must be cut out entirely, also any puny, weakly ones; both kinds are generally long-jointed and sappy. SHAMROCK.

NECTARINE HUMBOLDT IN A CHEPSTOW GARDEN.

THE HUMBOLDT NECTARINE.

THE accompanying illustration represents a Nectarine tree growing in one of the houses at Itton Court Gardens, near Chepstow (gardener, Mr. Alex. Monro), and is from a photograph taken by Mr. W. H. Call, Chepstow. The tree was planted in 1905, and now covers a space of 135 square feet. At the time the photograph was taken the tree was carrying a crop of 262 fruits, all of which were perfect.

GARDENING FOR BEGINNERS.

HOW TO RETAIN THE BUDS OF CHRYSANTHEMUMS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—In many instances border Carnations are now flowering very freely, and some cultivators may be inclined to defer the work of layering until the majority of the flowers have faded. Where the side shoots are strong enough they should be layered, as when they are rooted early there is a much better chance

1.—TWO GROWTHS SHOWING TERMINAL BUDS BEFORE DISBUDDING HAS BEEN DONE.

of wintering them safely than when the roots are formed late in the season. This work, if neatly done, need not interfere with the good condition of the plants and their flowers. There are various ways of layering, but the simplest is the best. Clear away any leaves or rubbish that may have collected under the plants; then select a few of the best side shoots growing near to, or on, the soil and remove some of the "grass" near the base of each one. Then, with a very sharp knife, make a slit in the stem in an upward direction and about 1 inch long halfway through it. Previously, however, some nice gritty compost must have been prepared. This must be placed several inches deep under the layers, the latter being duly pegged down into it with the cut lip held open by means of a small pebble or sand placed in it. Cover the cut portion of the stem quite 1 inch deep with the new sandy compost, and water all through a fine-rosed watering-can. Some strong plants will yield as many as a dozen strong layers. Herbaceous borders will again claim attention. When stormy days come, shoots are broken down and many plants require some tying up. Faded flowers should be removed, too. At this season a secondary crop of flower-spikes of a number of kinds of plants appear, and as they will, in due course, considably brighten up the borders, every care must be taken to preserve them. Continue to propagate cuttings of bedding-out subjects.

Vegetable Garden.—Mushrooms may be grown in any garden if a sufficient quantity of stable littery manure and tree leaves can be obtained. Of course, greater success may follow if there are properly built Mushroom houses available wherein to make up beds; but such structures are not absolutely necessary, as the Mushrooms can be grown in any kind of shed and also in beds made in the open air. Indeed, I think it a wise plan to have beds both under cover and in the open. There is no time better than the present for the work, as it is much easier to succeed in growing Mushrooms in winter than in summer on account of the attacks of maggot in summer-time. The manure should be collected fresh from the stables every morning, and be spread out thinly in open sheds both to sweeten and partially dry. Turn over the material every morning until sufficient is gathered to make up a bed, say, 8 feet long, 4 feet wide and 14 inches deep. Make flat beds under cover, and ridge-shaped ones in the open air. In most cases it will take quite a week wherein to collect sufficient material to form a bed. In a future issue I will give a few hints on how to make the bed, spawn and treat it. The soil is now in good condition for the planting of Endive, Lettuces and winter greens. A nice breadth of Endive should be planted forthwith, as these plants will be so valuable later on. Also thin out seedling Turnips to 2 inches apart, and in due time to 4 inches, using then the ones pulled up.

Fruit Garden.—As nearly all kinds of fruit trees are now bearing fruits, it is a good time to ascertain whether the trees are correctly labelled. Each kind, as the fruits ripen, can be named; but in case there is some doubt, send specimens to THE GARDEN Office and they will be correctly named. All worn-out labels must be replaced with new ones, and they should be so fixed that the labels are secure and easily seen. We may now expect strong gales from the south and south-west, so it will be advisable to support those branches that are the most heavily laden with fruit. Not only does support prevent the breaking of branches, but also the bruising of fruits. Clear away old Strawberry plants, and get the ground deeply trenched at once if more Strawberries are to be planted there.

Greenhouse and Frames.—Some bulbs of Roman Hyacinths and the early flowering Narcissi should be potted as soon as possible now, in order to have a nice display of flowers in the greenhouse late in autumn and at Christmas. Of course, these and other kinds of bulbs are suitable for warm and cool houses; but for the latter they are especially valuable. Put the bulbs in a light, sandy compost in 6¼-inch pots and cover the latter with ashes until the new growths are about 2 inches long. A little artificial heat will be beneficial at night to greenhouse plants now and through the autumn, unless the weather comes exceptionally warm. Repot Cineraria, Primula and Calceolaria plants before they get pot-bound, else they will flower prematurely. The earliest plants may be fully exposed each fine evening and throughout the night to the dew, as they will receive much benefit from such treatment at this season. From this date lessen the shading of all frame subjects gradually. A. A.

RETAINING THE BUDS OF CHRYSANTHEMUMS.

Now that the summer season is hurrying along, growers of the Chrysanthemum are reminded that work of a most important character has to be done in the near future. Bud-retaining is an all-important matter for the beginner to thoroughly understand, and the term "retaining the buds" is used in preference to all other terms, because it is less likely to be misunderstood than are many of the more popular terms so well-known to growers of the "Autumn Queen." It is quite common for growers to say they have "taken" their Chrysanthemum buds, and equally popular for them to use the term "secured" to express the same fact. These two terms are synonymous with the expression I have used; but when we say a bud is retained no person could be led to believe other than that the bud is retained on the plant.

With the advent of the early flowering Chrysanthemums disbudding and bud-retaining come in for a larger share of attention than formerly, and this work is also done at an earlier period than was the case when the ordinary exhibition Chrysanthemums held sway. From August onwards the early flowering outdoor Chrysanthemums develop their buds in quick succession. Most of the early flowering varieties are now represented by large, or fairly large, bushy specimens, and this bushy character has developed in quite natural fashion, without any pinching or stopping of the growths earlier in the present season. Any reader who will take the trouble to inspect the plants of his outdoor Chrysanthemums will find that, owing to the development of what are known as crown buds at frequent intervals during the summer season, the plants have been induced to branch or break out into a number of fresh growths. The buds that the outdoor plants are now evolving are what are known as terminal buds. This name, it is quite obvious, was given to them because they mark the termination of the plant's growth, that is to say, no further growth is made, but clusters of buds are evolved at the apex of each shoot. A careful inspection of plants of these outdoor varieties will clearly demonstrate what has been stated above.

For the purpose of illustration I have portrayed in Fig. 1 just two ordinary shoots of outdoor Chrysanthemums gathered at random from a collection of plants that are just now developing their terminal buds. They differ slightly in their character. That on the left has shorter footstalks than that on the right, and would never make such an interesting display as the latter,

2.—THE SAME SHOOTS AFTER DISBUDDING. ALL SMALL AND CROWDED BUDS HAVE BEEN REMOVED SO THAT EACH FLOWER WHICH REMAINS CAN DEVELOP SATISFACTORILY.

3.—SHOOTS SHOWING "CROWN" BUDS BEFORE THEY ARE RETAINED. NOTE THE YOUNG GROWTHS SURROUNDING THE BUD ON EACH SHOOT. THESE MUST BE REMOVED GRADUALLY.

which, it will be observed, is of freer growth. By a simple system of disbudding, which may be carried into effect as soon as the buds are large enough to handle, the prospects of a beautiful display may be made quite sure. To simplify the matter for the beginner I have partially disbudded these same two sprays or growths, removing all the smaller buds and retaining one terminal bud on each stalk. A comparison made between the disbudded shoots in Fig. 2 with those depicted in Fig. 1 shows quite clearly how the work of disbudding should proceed.

There are other buds that give the grower of large blooms much concern, and throughout the whole of August and early September those that are known as "crown" buds must be retained. Crown buds usually produce large, deep, full blooms, and they are retained at this comparatively early period, as from two to three months are necessary for the buds to develop florets, and make the large blooms that most flower-lovers are so familiar with.

In Fig. 3 two growths of large-flowered Chrysanthemums are shown, differing in their character in order to explain how they shall be respectively treated. On the left of the illustration the crown bud has recently developed, and is surrounded by several small shoots that must be removed. Their removal, however, should be a gradual process, say, one shoot on each day, until they are all removed and the bud is left quite alone at the apex of the shoot, *i.e.*, retained. The growth on the right represents quite a different type of crown bud to that already described. In this instance the bud is seen standing out quite distinct and clear from the somewhat attenuated shoots that surround it. However, these shoots must be dealt with in similar fashion, and as a result the buds, properly retained, will be represented in much the same manner as that seen in Fig. 4. Points for the beginner to remember are that a crown bud is always surrounded by young shoots, and terminal buds always develop in clusters at the termination of the plant's growth. D. B. C.

TOMATOES.

Winter and Spring Fruiting Plants.

The Tomato is not a difficult plant to grow during the hot summer months under glass when free ventilation is provided, and, in favourable seasons, in the open air also. The two past seasons have not been at all favourable for outdoor cultivation, and under glass much care and skill have been necessary in order to get satisfactory results. Cultivators do not like to be disappointed, and no doubt many readers of The Garden will wish to grow Tomatoes during the winter and spring months. Now, I would like to say that it is not a wise step for any person to take unless the glass structures are suitable and the necessary artificial heat available at will. Ventilation in winter-time cannot be thorough—thorough as we mean when referring to it in the summer—but, on the other hand, we can keep the atmosphere dry without opening the ventilators, and we can regulate the temperature.

Raising Early Fruiting Plants.

The first batch of plants to be fruited should be raised from cuttings. It is not at all a difficult matter to propagate Tomatoes at this season. Either the tops or strong side shoots of healthy fruiting plants may be taken off and rooted forthwith. Cuttings 6 inches long will do. If taken from the sides of the main stems, scoop them out with a sharp knife so that a small heel will be attached to the base of each one. When so taken off there will be no occasion to remove basal leaves before inserting the cuttings. Cuttings taken from the tops of the old plants or long side shoots will require the removal of one or two leaves, and the bottom portion must be cut off just below a joint.

Inserting the Cuttings.

Having prepared some gritty compost—without manure—and placed it in small pots, insert the cuttings singly in the centre of each pot, put sand on the surface, give water, and then place the pots on a gentle hot-bed or in a frame over hot-water pipes. They will form roots without any bottom-heat being used, but roots are more quickly emitted by its aid. On no account put the cuttings in a closed propagating-frame, else they will be much drawn up and partially spoiled. Besides, it is not necessary, as the cuttings soon root. When sufficiently rooted put the young plants in pots or boxes direct—do not shift on into 6-inch pots, but into their fruiting pots at once—in a mixture of fibrous loam, cut quite six months previously and stacked, a small proportion of well-rotted manure, and old lime rubble in sufficient quantity to keep the bulk porous. If the compost is 7 inches deep it will do nicely, as top-dressings and feeding can be given in due course. Full light and somewhat close proximity to the roof glass are points to be noted and are essential to success. Watering must never be overdone.

Raising Plants from Seeds.

Seedlings will not come into fruiting condition as soon as plants raised from cuttings; consequently it will be advisable to sow some seeds before the end of August. Do not sow the seeds broadcast in large pots or boxes and transplant the resultant seedlings, but drop one or two seeds in the centre of the soil in a 3½-inch pot, and if more than one germinates retain only one in each pot. When large enough to be repotted, transfer the young plants to their permanent quarters, as advised in the case of rooted cuttings, and treat them similarly. Grow winter-fruiting varieties.

CUTTING DOWN HERBACEOUS PLANTS.

At this season many kinds of herbaceous plants are past their best, that is, the flowers of some have faded entirely and of others they are fading. These specimens make the border untidy, and the lover of neatness may be tempted to cut down all such plants forthwith. To many plants this course would be disastrous. No stems must be cut down until the leaves on them have practically lost their vitality. Dead leaves and faded flowers should be removed every few days, but retain the stems and fading leaves; they really do not constitute an eyesore to the experienced cultivator. Avon.

THE TOWN GARDEN

Outdoor Tomatoes.—These, by reason of the continued rains and the cold and sunless weather, are by no means promising, and in many directions, particularly where the plants are growing in the open quarters, disease has already set in. Where heavy and wet soils occur there is little hope of much success during the present season, though, to some extent at least, this will be governed by local conditions. Where the plants are still fairly clean and a good set of fruits is in evidence, a light thinning of the foliage to admit light and air will be an advantage. Those planted against sunny and warm walls will have a far better chance of success, and such as these should receive every encouragement. Three trusses of fruits will be ample for any of the plants to carry, and these might be assisted to swell by the application of guano or other manure of a quick-acting nature. The plants, too, if not already stopped, should have the points removed at once, and as much light should be given to the fruit-trusses as possible. It will depend entirely upon circumstances whether these plants growing against walls will require water or not, but they should not be allowed to become dry at the roots.

Early Chrysanthemums and Aphides.—Despite the prevalence of rain and the heavy storms that are said to wash away from such plants as the above all insect-life, many of the early flowering Chrysanthemums are infested with aphides of several kinds, and the only way to get rid of the pests is to syringe with some approved insecticide without delay. Abol is one of reliable character, and, of course, there are others. That named, if used in conjunction with the syringe of the same name, is economical.

How to Use Insecticides.—Spraying against insect pests is not usually rightly understood, and not infrequently the garden labourer or garden boy is set to do the work. As a rule this simply means the squirting through a syringe of so much liquid at double quick time, the result being that a large

4.—"CROWN" BUDS RETAINED AS SUGGESTED IN FIG. 3. IN THIS INSTANCE THE YOUNG GROWTHS HAVE BEEN REMOVED AND THE BUDS RETAINED SO AS TO STAND ALONE AT THE APICES OF THE RESPECTIVE SHOOTS.

percentage is wasted and the insects remain uninjured. This is, of course, unsatisfactory, and is to some extent due to the use of too much physical force. By lightly spraying upon the clusters or colonies of the insects and wetting the parts of the plants affected, a much better result will follow and little or none of the insecticide will be wasted.

SWEET PEA FLOWERS FALLING.—Several instances of the premature falling off of the flowers of the Sweet Pea from the stalks, leaving one, or too frequently none at all, have come under my notice during the past weeks. Unfortunately, after pursuing enquiries, I find the conditions of culture and of soils extremely variable, and in these circumstances I can only surmise that a check has been given to the plants at the critical period of flower formation. The low night and day temperatures have indeed been sufficient to account for this, and as the flower-buds have fallen away at an early stage in most instances, this is in all probability the cause. Too frequently, however, amateurs plant their Sweet Peas—and other crops, too, for that matter—on the same ground year after year for no greater reason than that "they did all right there last year." In gardening, however, there is no greater mistake than this, and plants quickly tire when grown in the same soils year after year. Sweet Peas are fond of lime and chalk, and in soils known to be deficient in lime a dressing of either will be beneficial in winter-time, or lime-water may be given during the growing season as opportunity offers.

THE SCARLET TURK'S-CAP LILY.—At the moment of writing, Lilium chalcedonicum, which is best known by the popular name at the head of this note, is the most brilliant flower of the garden, its intense vermilion scarlet flowers of glistening wax-like texture demanding and receiving attention from all. The plant is rarely more than 3 feet high, and admirably adapted for the border or for colonising in groups. Happily, too, it is not fastidious as to soil. E. H. JENKINS.

NEW PLANTS.

ROYAL HORTICULTURAL SOCIETY.—AUGUST 2.

CARNATION MRS. J. A. REYNOLDS.—A border variety of good size and form. The ground colour is buff, the petals shaded with salmon towards the edges.

Carnation Forester.—A yellow-ground fancy variety marked with red. The petals are very fine. These were exhibited by Mr. J. Douglas, Great Bookham.

Phlox Frau Antonin Buckner.—A very fine pure white herbaceous Phlox, with just a suspicion of green at the centre. From Messrs. W. Wells and Co., Limited, Merstham.

Cattleya Warscewiczii Othello.—This is a very handsome variety, with pale rose-coloured sepals and petals and purplish crimson lip, save for a few lines of yellow colour near the throat. From Lieutenant-Colonel Sir George Holford, K.C.V.O., Tetbury, Gloucester.

Each of the above received an award of merit.

NEW VEGETABLES.

The following, among many others, had been on trial at Wisley, and on August 2 came before the fruit and vegetable committee, when the awards of merit were duly confirmed.

Pea Prestige.—Apparently a variety of much merit and with large, well-filled pods. From Messrs. J. Veitch and Sons, Limited, Chelsea.

Pea Prince of Peas.—The handsome Peas were contained in blunt-ended pods, which were well filled throughout. A most prolific variety of the best marrow flavour.

Lettuce Heartwell and *Lettuce Supreme.*—Both Cabbage varieties of much excellence. These three novelties were from Messrs. Sutton and Sons, Reading.

Pea Moneymaker.—A variety of good size and of dark green colour. From Messrs. King and Son, Coggeshall.

Lettuce Green's Favourite.—A small and compact Cabbage variety.

Lettuce Icehead.—A large, firm Cabbage variety.

Lettuce White Favourite.—A soft-leaved variety of the Cabbage section.

Potato Selected Ashleaf.—Of true kidney type. These came from Messrs. Barr and Sons, Covent Garden.

Potato Walker's Seedling.—A kidney variety. From Messrs. Bruner.

Potato Faithlie.—Approximating to the true kidney shape. From Messrs. Smith and Son, Aberdeen.

Potato Den's Favourite.—A shapely variety of the pebble-shaped kidney type. From Messrs. Den.

DAFFODIL NOTES FROM NEW SOUTH WALES.

THE outlook for the Daffodil season just commencing in New South Wales is rather more promising than usual, as a great part of the country has been favoured with bountiful rains, so that since planting-time the bulbs have met with no check. So far the only Daffodil to bloom in the open is Maia, a yellow trumpet seedling raised by Mr. H. H. B. Bradley from M. J. Berkeley. With me this came into bloom in the garden on June 3, while as pot-grown examples the raiser was able to exhibit it on May 16. For earliness this establishes a record, as of the standard varieties the earliest is probably Androcles, blooming about July 4, closely followed by Countess of Annesley, H. Irving and Maximus. Another very early and useful seedling of Androcles type has been exhibited in pots by Mr. Hawes for several years early in June. With the advent of Maia the Sydney Daffodil season has been lengthened by a full month, and as this variety is a free seeder, it furnishes a fresh starting-point for the hybridist. It would be extremely interesting to know how these Australian seedlings would behave in England, and whether they would maintain their early flowering habit under such different conditions. Writing of these early varieties brings me to a subject that has been receiving the consideration of the Narcissus committee of the Horticultural Society of New South Wales, viz., the question of whether mere earliness is sufficient in itself to justify a certificate. This has now been decided in the negative. Perhaps there may be information available as to the position taken up by the Narcissus committee of the Royal Horticultural Society on this point. The local committee is to be congratulated in having for one of its members Mr. G. S. Titheradge, whose experience in connection with the committee of the Royal Horticultural Society should prove invaluable here, while the fact that he was practically the pioneer of the Daffodil cult in Australia makes his re-entry into the Australian Daffodil arena doubly appropriate.

In connection with raising seedlings, I have had a somewhat curious experience, which may be of interest to some of your readers, while personally I shall be glad of any information bearing either on this or any similar case. For years I endeavoured to obtain seed from Barri conspicuus, but with the exception of one poor pod of seed in 1907, which gave me one seedling, I was absolutely unsuccessful. An article by A. J. Bliss in a contemporary dated April 11, 1908, confirmed my own experience of this variety being almost useless for breeding from. Two years ago, having pollen of either poeticus, Dante or Chaucer, with nothing promising to use it on, I somewhat hopelessly dusted seven blooms of Lady Godiva (a reputed sport from Barri conspicuus) with the pollen, and to my extreme surprise obtained seven large pods of exceptionally fine seed, which germinated freely. As Barri conspicuus has been known to give at least one white sport here in Sydney, it is presumed that no doubt exists as to Lady Godiva being really a sport from that variety. If this point can be established, the question naturally arises, Why should the original variety be practically infertile and the sport quite otherwise?

Another matter I am curious about is whether Minnie Hume and Duchess of Brabant represent distinct seedlings, or whether the former is merely a development of the latter. Some years ago a careful selection was made from Duchess of Brabant of those bulbs the blooms from which showed a tendency to develop a larger and more expanded cup. This selection was kept up for some years, with the result that in 1908 I exhibited my best Minnie Humes from this source, and they have since kept up their character.

New South Wales growers have hitherto been able to congratulate themselves on absolute immunity from the Daffodil fly (Merodon Equestris), but I am sorry to have to report that recently I have had serious trouble from the ravages of a small white grub, the produce of a nocturnal moth. Specimens have been submitted to the Department of Agriculture for identification, and when this is done I will communicate the results. The grub attacks the bulbs only when out of the ground, usually destroying the outer covering, though occasionally eating its way into the bulb itself. Up to the present I have not heard of the occurrence of this pest elsewhere, and hope that it may not develop into a permanent source of trouble.

Sydney, New South Wales. H. SELKIRK.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Pruning Lavender (*Enquirer*).—Lavender does not require very hard pruning, and it is usually enough to cut it back 2 inches or 3 inches below the base of the flower-stalks. It is really immaterial whether it is pruned during autumn or spring. If pruned in autumn the plants have a tidier appearance during winter. Should your plants be straggling, it is better to start again with young ones rather than cut them back into hard wood and try to improve them that way.

Diseased Lavatera (*E. C.*).—The Lavatera sent from Colchester is attacked by the fungus Colletotrichum malvarum. This fungus is comparatively new to this country, but during the past four years it has spread widely on Lavatera cultivated in gardens. In America it is reported as causing a very troublesome and malignant disease

on Hollyhocks. In view of this it is important that efforts should be made to exterminate it as soon as possible. All diseased plants should be pulled up and burned, and those left sprayed with Bordeaux mixture. Seed should not be saved from stocks that are diseased, and it would be well to avoid growing the plants in the same ground in successive years. As it has been found growing on a species of Mallow in Sweden, it would be well to see that weeds belonging to this family are thoroughly kept down. The Lychnis is attacked by Septoria lychnidis, and those badly affected would be better removed. The others should be sprayed with Bordeaux mixture. This also attacks the common Red Campion.

Carnation layers (*Carnation*).—It is highly probable that your Carnations have been attacked by wireworm, and possibly also by leaf-miner or maggot. The former may be trapped by placing pieces of Carrot or Potato near the plants and examining them from time to time. The best soil for Carnations is one of good fibrous loam, and if your soil is heavy and sticky, it should be lightened by using sand or grit of any description. For the layering you might mix some very sandy soil to put around the plants, but you should also dig about them to see if wireworm is present. Soot worked into the soil is distasteful to the pest named, and some of this may be dusted over the foliage of the plants to keep the maggot in check. In any case you should try and remedy the "stodgy" character of your soil by frequently working it and by inserting sand, wood-ashes and grit to render it more porous. See "The Town Garden" column for July 16 on Carnation layering.

Violas and Sweet Peas (*W. R.*).—The full south position on the slopes is by no means the best for the Violas, and unless autumn planting is indulged in and exceptional precautions are taken with regard to soil, the chances of success are not great. As the plants have done fairly well hitherto, we can only suggest an entire change of soil in conjunction with the autumn planting of fresh stock. There is no dwarf plant so free or continuous in flowering as the Viola, and the Rose on the same slope would be the least likely to succeed. The plants should be young, freshly rooted cuttings, not old divided plants, as these are prone to fail. If put out late in September or early October, the plants would become well established before flowering-time arrived. We hope to publish an article dealing fully with their culture at a later date. The following are some of the best: Bullion, Ardwell Gem, Florizel, Blue Cloud, J. B. Riding, Skylark, True Blue and Wm. Neil. If you require but two sorts, the first and third named are recommended. The failure of the Sweet Peas is most likely due to the continued cropping on the same ground, and a change of soil would doubtless put matters right. If you cannot do this, deeply trench the soil and manure and lime it. Subsequently give it a dressing of soot and fork it in.

Galega (*M. H.*).—There is nothing whatever on the foliage to account for the spotting. It probably arises from something affecting the root or the part of the stem about the ground level.

Sweet Peas for inspection (*F. W.*).—We were unable to discover any insects or fungi. The flowers and stems have the appearance of those from plants attacked by eelworms or fungi at the roots.

Carnation for inspection (*Miss A.*).—The foliage appears to have been attacked by red spider. The plant should be sprayed with an insecticide, or, if possible, fumigated, and, after an interval sufficiently long to allow the eggs to hatch, fumigate again.

Cupid Sweet Peas (*G. E. O.*).—The plants have been attacked by green fly. Spray them (if not now too late) with Quassia and soft soap made by adding ½lb. of soft soap to the hot extract from 1lb. of Quassia chips (boiled for an hour or steeped in cold water for twenty-four hours) and diluted to ten gallons, or with a nicotine wash, or, better still, fumigate again. The Sweet Pea leaves have been eaten by the larvæ of a small moth. Spray with strong nicotine solution, but first make sure the larvæ are still there; there was none on the leaf sent. Red spider is on the Dianthus. Spray with water or with one-third of an ounce of potassium sulphide in a gallon of water.

Gentiana verna (*J. H. Thomas*).—If the plant is in the open ground, the present time would prove most disastrous for moving it, September being a far better time. Pot plants, of course, are quite distinct, and where the examples are established they may be replanted at almost any season if well cared for subsequently.

Cutting off Periwinkle runners (*M. J.*).—It will depend entirely upon the position occupied by the plants and your own desires in the matter, and of the former you give us no information. As to the actual cutting, this may be done at almost any season of the year, the plants being hardy and not in the least fastidious in these matters.

Diseased Sweet Peas (*Anxious*).—The plants are attacked by the fungus Thielavia basicola, which is growing on the root and killing it. This fungus appears to depend very largely upon conditions surrounding the plants as to whether they are attacked or not. It seems, perhaps, most prevalent in poorly drained soil. Try what a light dressing of superphosphate of lime will do.

Dividing herbaceous plants (*Kitty*).—Spring, April and May, the first-mentioned for preference, is the best time for dividing Iris stylosa, I. germanica and the Anemone. The Autumn Crocuses, single and double, by which we presume you mean Colchicums, are best lifted, divided and replanted in July, or as near to this as is possible. There is no better time for dividing the Christmas Rose you mention than late August and early September. The value of doing the work at this time is wholly dependent on the root action of the plants, which varies but little in the whole range of forms of Helleborus niger.

Blighted Dahlias (*Hickman, Holloway*).—The Dahlias appear to be in a very bad way, and are suffering chiefly from the attacks of a leaf-mining maggot and caterpillars, for which latter hand-picking is the best remedy. For the former early spraying with soot-water may be helpful, but it would need to be done in anticipation of an attack, the maggot resulting from the egg deposit of a fly, which early penetrates the leaves and works therein. As the slugs are in such numbers, you cannot do better than continue to reduce them on the same lines as at present. Soot and lime are both good for the purpose, but the slugs often secrete themselves in out-of-the-way places where these things cannot reach them. A dressing of salt is also excellent where it can be applied without injury to the plants.

Carnations and fowl-manure (*Amateur, New Barnet*).—The brown maggot to which you refer was most likely a wireworm, a pest which bores into the Carnation stem and tunnels its way therein. The wireworm is most ruinous to the Carnation, and is to be found in the soil by searching. Fresh pasture turf not infrequently contains a few, some soils being infested with them. The Carnation maggot usually attacks the top portion of the plant, entering the stem by way of the leaf-axils. It is about a quarter of an inch long, of a dirty white colour, with dark-coloured head. A dusting of soot may assist to check it. Insecticides are useless, as the pest works internally. Add to the fowl-manure a similar quantity of fresh soot, place in a bag and drop in a tub with ten gallons of water. Stir a few times after it has soaked for a couple of days, and use the liquid in the proportion of one quart to four quarts of water. For the Sweet Peas twice that strength may be given.

TREES AND SHRUBS.

Lilacs not flowering well (*Constant Reader*).—It is probable that pruning would induce your Lilacs to blossom more freely. You must not, however, cut them back in the ordinary way, but thin the branches out. After removing some of the inner shoots, cut away quite half of the young growths from the remaining branches. The work may be done now, though it ought to have been done six weeks ago. It is also a good plan to remove the flower-heads as soon as the flowers have fallen. If you thin your bushes out for two or three years, you ought to obtain plenty of flowers for several years to come.

Romneya Coulteri in winter (*J. M. B. Whatham*).—Except in the event of very severe weather occurring, we should advise you to leave your plant of Romneya Coulteri unprotected, as from what you say it is in a warm and sheltered position near Folkestone. As a rule, it is a mistake to protect things much, and what protection is given during winter should only be provided in the event of sharp frost, and be taken off again when the frost goes. The time when most protection is needed is spring, when new shoots are beginning to grow, for they are easily damaged by a night's frost. A mat placed round the plant each night and removed in the morning forms sufficient protection.

Prunus Pissardii trees dying (*W. S.*).—It is impossible to say what is the cause of your trees of Prunus Pissardii dying without seeing specimens. The trouble may be due to late spring frosts, but is more likely to be caused by root trouble, probably by one of the root rot fungi. You had better examine the roots, and if they are dead remove the bark and see whether there are white threads of mycelium beneath. If this is so, burn all the dead and dying trees and remove the soil in which they have been growing, replacing it with new soil before replanting new trees. By doing this you will probably keep the disease from spreading. Should you find no trace of fungus, we should imagine that the trees died through late frosts after bad ripening last year.

Hydrangea paniculata wood dead (*E. B. G.*). The plants have been too long dead for us to form any opinion as to the cause of their death. Ants are not likely to have been the culprits.

THE GREENHOUSE.

Bulbs in fibre (*J. H. Jackson*).—The question of success or failure with bulbous plants in fibre depends very much upon the size, quality and maturity of the bulbs, and in any case it would be advisable to obtain the best. Yellow Crocuses should succeed as well as the others, and the failure of one year need not of necessity be so another year. The same remark applies to Snowdrops and Tulips, and these are certainly worthy of a further trial. The Paper-White Narcissus may not succeed so well, and this variety is usually of tall growth. Apart from the question of quality in the bulb, there is also much difference in respect to varieties, this being abundantly evidenced in Tulips and Hyacinths. For a succession we should recommend Elwes's Snowdrop, Crocuses in variety, Chionodoxa Luciliæ, C. sardensis (both of fine blue colour and very small bulbs), Iris reticulata, Roman and Italian Hyacinths, Tulips Vermilion Brilliant, Artus and Keizerskroon, Narcissus minimus (a miniature of 2 inches high), N. obvallaris, N. Princess Ida, N. princeps, N. Golden Spur, N. ornatus, N. Emperor, N. Empress and N. Sir Watkin. We hope later to publish an article on this subject.

Phyllocactus spotted (*K. J., Balham*).—The spots on the enclosed piece of Phyllocactus are caused by one of the scale insects. Although we cannot find any living ones, the indentations are the result of the plant being there deprived of its normal amount of sap, and consequently growth is arrested. Your better plan will be to sponge occasionally with a lather of soft soap and water, and thus prevent the pests from obtaining a foothold.

Greenhouse floors (*E. D.*).—There will be no need to cement the floor below the border providing the soil is taken out to a depth of 2 feet and 6 inches of brick rubble is put in the bottom for draining purposes. As the clay bottom will not allow the water to percolate through, provision must, of course, be made to carry off the superabundant moisture. A width of 2 feet 6 inches to 3 feet will be very suitable for the border. When filling in with suitable soil, some turves with the grass side downwards should be laid immediately over the drainage material.

Carnations for inspection (*Quiddley*).—We can find no trace of damage due to thrips on the Carnations sent nor any other insect or fungus. The shoots appear as though they had been kept too close. Thrips are very small, usually about one-eighth of an inch long, and when mature have small, narrow, bristle-like wings. Their colour varies from creamy white or yellow to black. They are often known as "thunder bugs," possibly from their habit of congregating in dwelling-houses, &c., in stormy weather. Fumigation should be possible in well-constructed cold frames, and is the best means of attacking thrips. A nicotine wash is also useful.

House for Carnations (*Weekly Reader*).—A span-roofed house is far and away the best for the successful culture of Perpetual-flowering Carnations; indeed, such a structure is absolutely necessary if you wish to obtain the best results. It should be in a good open position, and ample provision must be made for ventilation at the sides as well as at the top. The plan likely to give the most satisfaction will be to devote your house entirely to the culture of these Carnations; but if you particularly wish for other winter and early spring flowering subjects to associate therewith, the following would suit your purpose: Bulbs of different kinds, such as Hyacinths, Tulips, Chionodoxa, Muscari, Narcissus and others Cyclamen, Cinerarias, Primulas of sorts and other greenhouse winter-flowering plants.

ROSE GARDEN.

Soil for Hybrid Tea Roses (*A. W. Newall*). The sample of soil you send us is very deficient in humus. If you can procure some good clayey loam, we advise you to add this liberally, say, in the proportion of two-thirds of the latter to one part of the sample you send us. You would also need to add some good well-rotted manure, not fresh stable manure, but that which has been well turned over or that has laid for a year. Manure from cow and pig yards could be used in a more fresh condition. Let the soil be trenched about 2½ feet deep and mix the various ingredients as the work proceeds. An addition of basic slag to the lower spit of soil at the rate of 6oz. to a square yard would be highly beneficial.

Roses potted in October (*T. S.*).—The new Rose named Edward VII. is a Dwarf Polyantha variety, not a rambler. Plants, if well ripened and potted up in October, should flower in February. These Roses are totally different to Teas and Hybrid Teas, for they are usually best grown very gently the first season and forced the next, but these little Polyantha Roses are more easily handled. If you take the precaution to place the plants where they can have a gentle bottom-heat, such as on a bed of leaves or manure placed in a pit in the greenhouse, you will have no trouble with them. Let the plants remain outdoors about three or four weeks after potting, then bring them under glass. Prune back to about 12 inches at the time of potting, and place them on the bed where they can receive bottom-heat early in December if you require them to bloom by February.

Orange rust on Roses (*Beauty*).—Your Roses are affected by orange rust. Spray the plants as recommended in our reply to "J. C." (Dundee). We do not imagine the fungus will spread if you take the precaution to spray the plants at once.

Value of Rose cuttings (*W. S. Y.*).—Your Rose cuttings that have now rooted are certainly worth keeping on their own roots; indeed, the ramblers are more satisfactory in this way than in any other. You can, however, do nothing with them now, but in October, or early next spring, they may be transplanted. If fairly sturdy they need not be pruned at all, but if weak you may, next April, shorten back any straggling shoots.

Rose buds malformed (*G. H.*).—The buds you send are from a plant of Philadelphia Rambler, not Waltham Rambler, which is a pale pink single Rose. The Philadelphia Rambler, although a very beautiful rich colour, brighter even than Crimson Rambler, has the one great fault of producing these malformed buds. We have found, however, that many of them developed all right, so we advise you to allow them to remain on the plant, removing perhaps a few of those very badly malformed.

Rose foliage blighted (*Abu-Facada*).—The leaves, in some cases almost transparent in large patches, have been attacked by the Rose slug worm, which is the larvæ of one of the sawflies. The mischief is done now, but to prevent it another season and perhaps help to check any recurrence now, spray the plants with Hellebore wash made up as follows: 1oz. of freshly ground Hellebore and 2oz. of flour, mixed together with a little water, then stirred into three gallons of water. Keep well stirred and apply with a fine sprayer.

Rose with green centre (*C. M.*).—The Rose you send is a malformed specimen of Mrs. Paul. This variety, together with Mme. Isaac Pereire, from which it originated, is much addicted to producing these green-centred flowers, although there are other kinds which manifest the same peculiarity. It is usually attributable to changes in the weather and late spring frosts, both these Roses, being very double, suffering rather badly. Overfeeding with manure will sometimes cause the green centres, but this is rarely seen. The best plan to adopt would be to remove these crippled buds. You will obtain more perfect Roses now that the weather is warmer.

FRUIT GARDEN.

Medlars not swelling (*E. M. Boghurst*).—Something is wrong with the growth of your tree. It is evidently not able to develop and properly ripen its crop by reason of weak root action. Is there grass or any other crop or weeds growing under the tree over its roots? If there is, it should be immediately cleared away as far as the roots extend. In any case give the tree a good soaking of manure-water as soon as you can, and afterwards place a layer of rich and well-decayed manure on the surface of the ground over its roots 3 inches or 4 inches deep. Do the same next spring just before the tree starts into growth, giving it a good soaking of water before doing so.

Peach Hale's Early diseased (*G. Coulson*). The small white insects you speak of near the rib are "scales." They are difficult to kill in summer, because the application of an insecticide strong enough to kill them would seriously injure the tree. The only way to get rid of them now is to first loosen them with a piece of stick, and then sponge the leaves with warm soapy water. In winter they may be destroyed by an application of Gishurst Compound Wash. The whitish, mottled appearance of the leaves indicates that the tree is suffering from a disease fatal to the Peach and Plum when attacked by it, namely, the "silver leaf." The only hope of curing this fungoid disease is by an application of sulphur. The best way of applying it is by syringing the tree early in the evening and then dredging every part of it with flowers of sulphur, leaving it on for three days, shading the tree in the meantime and then washing it off.

Nectarine fruit with blotches (*Hugh E. S.*).—The fruit received is suffering from a severe attack of a fungoid disease, which has communicated itself to the centre of the fruit, destroying its kernel and rendering it useless. It is not often one comes across an attack of this sort, but we occasionally do, and the cause of it we have invariably found to be a too cold and damp atmosphere at night and in the early morning, with perhaps a sudden rise of temperature later in the day. A little heat in the hot-water pipes on cold nights would prevent this. If all the affected fruits are as bad as the one sent, the best thing to do will be to at once pick off and burn them. If not so bad, dredge the parts affected thickly with flowers of sulphur and the fungus will be killed.

Apricot trees unsatisfactory (*B. C. F.*).—Unfortunately, the Apricot suffers frequently from the loss of many branches through gumming and canker, and, so far as we know, no real specific for the prevention of this loss has been found. But when the tree is planted in suitable soil and well looked after, this trouble, after all, is not found to be of very serious moment, the trees generally bearing well and living to be old. The cause of the failure of your trees, we think, must lie in the poor quality and shallowness of your soil. In other words, they have been more or less starved. We advise you to give each tree as soon as possible a sprinkling of bone-meal (just enough to colour the ground), forking it into the soil to the depth of 2 inches, and then place immediately over the surface of the soil as far as you think the roots extend a dressing of rich, well-decayed farmyard manure 3 inches deep, allowing it to remain on all the summer. Very likely the bottom roots of the trees are dry. Give them a good soaking of liquid manure-water from the stable or cow-yard as early as possible. Failing this, a good substitute for it is a handful of Peruvian Guano to three gallons of water. In autumn, as soon as the leaves fall, apply a liberal quantity of rather heavy loam to the roots of the trees, as they delight in soil of this character. If you will remind us in the autumn, we will tell you how this should be done. We do not think that the absence of a glass coping to your wall has much, if anything, to do with the failure. There is no better protection of the bloom from frost in spring than to hang herring-nets two or three layers deep over the trees, taking care that the nets are kept from contact with the blossoms.

KITCHEN GARDEN.

Onions rotting (*W. G. R.*).—The Onions are attacked by the Onion mildew, caused by the fungus Peronospora Schleideni. All parts of the diseased plants should be removed and burnt, so as to limit the resting spores in the soil as far as possible. Onions should not be grown upon the same site next year. If the attack is seen to be commencing, the plants should be thoroughly sprayed with Bordeaux mixture.

Transplanting Rhubarb (*Hilltop*).—You may transplant your Rhubarb roots at any time in the early winter after the leaves have died away. When you lift the roots, as they are so old, divide them carefully so as to retain at least two good crowns to each piece; then replant in soil that has been trenched 20 inches deep and has been well manured. You should not, however, pull any stems from those roots the following year, but you may the second year. Your wisest course would be to leave some roots where they are to pull from next year till the others become strong. Give any old roots left a heavy dressing of manure or plenty of liquid manure. As your variety is Victoria only, you should get a few roots of Daw's Champion, by far the finest early Rhubarb in cultivation.

Vegetables for exhibition (*W.*).—Where they can be provided, eight of the best vegetables for exhibition are a mound of Cauliflowers in the centre at back, with good, well-blanched Celery on one side and equally good Leeks on the other; in front of the Cauliflowers twelve fine Onions, and beside or in front good Potatoes, Peas, Carrots and Tomatoes. Others good are Runner or Dwarf French Beans, Cucumbers, Marrows and Turnips in that order of merit. Good Marrows are better than weak Cucumbers. Even any of the latter-mentioned kinds are, if really good, better than weak samples of the first-named ones. Whatever kinds you stage, see that they are the very best you have. You should have mentioned the date of the show you wish to compete at.

MISCELLANEOUS.

To preserve Peas (*Mrs. Lowther*).—Shell and put in a saucepan of boiling water for two or three minutes. Pour into a colander, and when the water has drained off turn out on a cloth, and pour out on a second cloth to dry perfectly; then put them in wide-mouthed bottles, secure down with air-tight patent stoppers, and store in a cool cellar. When to be used, boil until tender, adding a small piece of butter, a spoonful of sugar and a sprig of Mint.

The value of peat-moss litter manure (*Johnnie Raw*).—We have always fought shy of using this manure after seeing, a few years ago, some acres of Sweet Peas grown for trial by one of our largest seed firms practically ruined by its use. The moss litter, as far as we know, is absolutely of no value as a manure. Its only claim to rank in this respect is on account of the ammonia and other manurial constituents it may have absorbed from the horse-manure, &c. We should be sorry to introduce much, if any, of the stuff to our garden soil, feeling sure it could do but little, if any, good, and fearing that harm to many crops might follow its use. In trenching heavy land an application of it to the bottom soil would, no doubt, help to lighten such soil, and in this way would probably do good, as it would have been rotted and purified by the soil before the roots of plants came in contact with it.

Plants of curious structure (*V. Richardson*).—The British Sundew (Drosera rotundifolia), whose little round leaves are furnished with erect hairs, each tipped with a glutinous substance, by means of which small insects are entrapped, will furnish a good illustration of peculiar structure, and you should be able to obtain specimens in your neighbourhood wherever the ground is damp enough for sphagnum moss to grow. The Sarracenias, or Side-saddle Plants, whose leaves are like an upright horn, have the orifice of each leaf clothed with stiff hairs, which all point downwards, so that when an insect settles thereon it slides down into the interior of the leaf, and escape therefrom is prevented by the fence of hairs. The Dodder, which occurs as a parasite on many wild plants, particularly on the Heath and Furze, should not be at all difficult for you to obtain, and it will form a most interesting, unorthodox subject. Then the insignificance of some flowers compared with the bracts which are associated with them, such as the Poinsettia, will complete your list for Question 3. As you will not get the Poinsettia in character now, sprays of Bougainvillea will do just as well, the same features occurring in this. A great deal might be made of plants now widely different in character, both among flowers and vegetables and the common stock whence they have sprung. Next, the manner in which plants adapt themselves to the conditions under which they exist; thus, in dry districts the roots are few in number but of a deep-descending nature, while in swampy places they often spread out horizontally, and thus, as it were, anchor the plant. This might be enlarged upon to a great extent, but the space at our command is too limited to allow of further details.

THE GARDEN.

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CONTENTS.

The Planting of Clay Banks 409
Correspondence .. 410
Notes of the Week
Roses at railway stations 411
Gardening of the Week
For the South and South Midlands .. 411
For the North and North Midlands.. 411
Fruit Garden
Fruit notes 412
Flower Garden
A suburban garden 412
Daffodil notes .. 412
A beautiful flower for rock gardens and borders 413
Editor's Table 413
Rose Garden
Weeping Roses and their treatment .. 414
Wichuraiana (Japanese) Rose Delight 414
Rose Frau Alfred Mauthner 414
Rose Tea Rambler 414
Trees and Shrubs
The Mexican Orange Flower.. 414
Flowering shrubs in winter 414
Spartium junceum.. 415
How I made an old mill-race into a rock garden 415
Gardening for Beginners
Garden work week by week 416
Notes from a small garden 416
Mildew on Vines .. 417
Feeding Chrysanthemums 417
The Town Garden.. 417
Annual flowers at Reading 418
Answers to Correspondents
Flower garden .. 418
Trees and shrubs .. 419
Rose garden 419
Greenhouse 419
Fruit garden 420
Miscellaneous.. .. 420
Societies 420

ILLUSTRATIONS.

A suburban garden in Bedford Park 412
One of the Cat-mints (Nepeta Mussinii) 413
Rose Tea Rambler in a Highgate garden 414
An old mill-race changed to a rock garden 415
An edging of Candytuft in a suburban garden 416
A bed of Stocks edged with Alyssum Carpet White.. 417

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE PLANTING OF CLAY BANKS.

THE clothing of clay banks satisfactorily is not easy to accomplish, and in some cases it is far more difficult than in others. Strange as it may appear, some clays, though apparently of much the same consistency as others, are far less inimical to plant-life in general, owing in all probability to a difference in the chemical constituents.

Soils.—The close adhesive nature of clayey soils, by which the roots are totally shut off from all aeration, prevents many subjects from thriving therein, while, owing to a great deal of the surface water running off at once, such soils become at certain periods of the year exceedingly dry. Where a comparatively small area of a clay bank has to be planted, much may be done to prepare it for the reception of different subjects by well digging and thoroughly incorporating with the soil anything that will tend to make it of a more open nature. Sand, ashes, leaf-mould and peat, which all tend towards this, are very beneficial. Road sweepings or scrapings, which at one time used to be looked upon as an ideal matter for mixing with clayey soils, must now in many localities be looked upon with great suspicion, as various chemical substances are used on roads, and all of them are more or less injurious to plant-life. Where the space is too extensive to allow of the bank being treated in this way, the only thing that can be done is to plant only such subjects that will hold their own under the adverse conditions detailed above. In planting it may be noted that young and vigorous plants have the greatest chance of success, as their root action is more vigorous than that of older specimens, and, consequently, they both penetrate deeper and ramify more freely. Differences of opinion may prevail as to the best time for planting under such conditions as these referred to; but I prefer the autumn for the purpose, as there is then more time for the plants to become established before the summer's drought comes round than there would be if the planting were delayed till the spring. One very important item is, whatever the season, it must not be carried out during wet weather, as the roots will then be, as it were, puddled in, and a heavy percentage of failures may be expected. The following are among the subjects most likely to succeed on clay banks:

Trees and Shrubs.—Acer platanoides (Norway Maple) and A. Pseudo-platanus (Sycamore); Amorpha fruticosa; Coluteas of sorts, which will hold their own under almost any conditions; Clematis, the vigorous growers, such as C. montana and C. Vitalba; Cotoneasters of sorts, especially C. Nummularia and C. Simonsii; Cratægus in variety, the common Hawthorn in its several forms being one of the best, while C. Pyracantha must not be omitted; Corylus Avellana, represented by several varieties; Cytisus scoparius (the common Broom); Euonymus europæus (Spindle Tree); Fraxinus (Ash) in different kinds; Hedera (Ivy), all the more vigorous creeping kinds of which can be recommended; Hypericum calycinum (Rose of Sharon) and H. androsæmum (Tutsan); Ligustrum (Privet) of sorts; Philadelphus (Mock Orange), the more robust kinds; Lonicera (Honeysuckle), our native species; Potentilla fruticosa; Prunus spinosa (Sloe) and its double-flowered variety; Pyrus Aucuparia (Mountain Ash); Quercus, the common Oak being one of the best; Rhamnus catharticus (Buckthorn) and R. Frangula; Robinia Pseudacacia, whose roots will spread to a considerable distance; Roses of sorts, especially Dog Roses and the Japanese Rosa rugosa; Rubus, many of the Brambles, the most ornamental being the double pink-flowered; Ruscus aculeatus (Butcher's Broom); Spartium junceum (Spanish Broom), flowers throughout the summer; Symphoricarpus racemosus (Snowberry), one of the most indifferent as to soil and to situation of our hardy shrubs; Ulmus (Elm), several kinds; Ulex (Furze), all the forms of which will do well on clay banks—the double-flowered variety must on no account be omitted; Viburnum, especially V. Lantana, V. Lentago and V. Opulus; Vitis of sorts; Vinca (Periwinkle), both species and their varieties; and Weigelas of sorts. Of

Herbaceous Plants there is a considerable choice of likely things. Worthy of special mention are Achilleas of sorts, particularly A. Millefolium rubrum and A. Ptarmica flore-pleno; Artemisias of sorts; Asters in great variety; Calystegia grandiflora and C. pubescens; Centaureas of sorts; Chrysanthemum Leucanthemum and others; Echinops (Globe Thistle); Elymus arenarius, a Grass with pretty glaucous leaves and a vigorous, spreading root action; Erigeron speciosus; Eryngium (Sea Holly) in several forms; Galega (Goat's Rue), both blue and white varieties; Helianthemum (Sun

Roses) of sorts, all being pretty and free-flowering; Helianthus, which includes all the perennial Sunflowers; Hemerocallis, the more vigorous of which will hold their own under very adverse conditions and flower well when exposed to sun and air; Iris, all the German kinds are good, but in any selection the old blue Flag Iris must not be omitted; Linaria, particularly the British L. vulgaris; Lychnis of sorts; Lysimachia vulgaris; Megasea cordifolia, perhaps for this purpose the best of the broad-leaved Saxifrages, but others are also good; Œnotheras of sorts, all showy; Polygonum (Knotweed), some species of which, such as P. cuspidatum and P. sachalinense, will push out their stout underground rhizomes for a considerable distance; Potentillas of sorts; Rudbeckias in variety; Saponaria (Soapwort), especially the double-flowered variety; Statice latifolia; and Thymus (Thyme) of different sorts.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Fig-growing.—Your notes on Figs are so contrary to my experience (of twenty-eight years) that I take the liberty of writing to explain what takes place in my garden nearly 600 feet above sea-level. I have three dark blue Fig trees (Portuguese, I believe) and two large white ones. They are against a wall, but not trained or pruned, the branches being only cut back when the trees grow over the path. They are never fed, but a stream of rapid clear water runs by them and, no doubt, percolates through the soil. Their roots run into it freely. The result is that the crop, generally a very heavy one, has only once failed me. I generally have them at all meals for a month at least, besides sending many baskets to friends in town. Whether I shall have a like result this year I doubt. The crop was heavy, and many Figs are already full size, but many have dropped, and, strange to say, the birds are eating them on the tree while still quite hard. The result, however, of my non-cultivation beats my neighbours hollow, as a rule. 2. In your issue of the 6th inst. a writer speaks with rather contempt of the flower of the scented-leaved Geranium. Is he acquainted with the scarlet-flowered variety? As a profuse and constant bloomer it is an ornament to the greenhouse, and the cuttings take very readily. P.S.—The soil is greensand.—(Rev.) W. F. SHORT.

A criticism of Sweet Peas.—As the Editor would like other readers' views on the subject, I beg to express mine, although I am only a novice and a grower in a very small way; but the latter is my misfortune rather than my fault, for my villa garden is so small. However, I delight in these lovely flowers. I think he expects too much for his penny each week when he finds fault on this matter. I buy THE GARDEN each week mainly on account of these offending "Sweet Pea Notes," which are most helpful to me in cultivating those I now have and in telling me all about the newest varieties from which I can make an improved selection in the following year. And I consider I get good value for my money. Subjects I take no interest in I skip over willingly, well knowing the Editor has all branches of gardening to deal with in catering for the various tastes of his numerous readers. I will admit the space now occupied is larger than it used to be, but the merit of the flower demands it, and, what is more, I certainly think it will grow much larger. I may remind your correspondent of the Eldorado Potato boom, for if he does a simple calculation he will find the newer varieties of Sweet Peas placed on the market last season at the rate of five for 2s. 6d. works out close to the £10 per ounce which he states was paid in the case of the Potatoes. The stocks of these Sweet Pea seeds were soon sold out, and could not be purchased last spring for still higher prices. But there is a great difference between the two booms; in the case of the Potatoes it died a very sudden death, but that of Sweet Peas has only commenced, and I am prepared to say it will be still stronger in a year or two. "Statice" declares the Potato gamble was engineered by the trade—that may or may not be, I do not know—but he must not infer that the Sweet Pea paragraphs which appear from week to week in THE GARDEN are written by interested parties who stand to gain by their insertion, for that is what some readers *may* be led to believe on reading his criticism. I do not agree with him that varieties will soon run into thousands, nor even a single thousand, for any new variety to become popular must either be a new colour or some improvement on those we already have, for as improved sorts appear, and I admit they come in large numbers, so do those improved upon drop out of demand and, therefore, in time out of cultivation altogether. A good instance of this is clearly shown in the catalogue issued only last season by one of the foremost growers in this country, in which it is stated he is offering no fewer than seventeen sterling varieties for the last time owing to their being too much alike or inferior to others in various respects. Of course, it does not follow they will drop out of cultivation immediately, but it clearly shows that the weakest must eventually go to the wall. I am afraid I cannot answer his question as to when it is all going to end. There is a vast difference in the blooms we obtain to-day over those of a few years back, and although improvement is slower now than formerly, there is no telling what developments the future has in store for us. Only to-day I have read of one stem giving ten blooms. May I ask in which direction do we get "too much of this Sweet Pea nonsense to the detriment of all lovers of flowers in general" in THE GARDEN? It certainly is not very flattering to those who do their best to keep us posted up to date with our favourites. I am afraid it does not matter a bit whether "Statice" refrains from pressing their claim for premier honours or not. He can rest assured that the Sweet Pea has come to stay, for there is no flower which gives a better return for the care bestowed upon it. With little attention to its wants a few dozen plants will supply the house with flowers of all shades of harmonious colours and delicious fragrance for three or four months, and we can also spare an occasional bunch to gladden the hearts of those who are unable to grow them. If "Statice" will mention which flower will give a better result I shall be pleased to know its name, so that I may discard the Sweet Pea to make room for it, but until then it must hold premier position in my tiny plot. In the meantime I shall be pleased if the Editor will continue to give us these notes, which I for one have found most interesting and useful in the growing of these exquisite flowers, also to give us the occasional coloured plate of them, several of which I have framed and which keep their memory fresh when the flowering period is over for a season.—H. P. B., *Bristol*.

[Many letters are unavoidably held over for want of space. We inserted the letter signed "Statice" because it was an expression of opinion from a reader.—ED.]

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 23.—Oxford Horticultural Society's Autumn Show.

August 25.—Aberdeen Horticultural Society (three days). Sandy Horticultural Society. Ellesmere Horticultural Society. Blaenavon Flower Show.

August 27.—Hawick Horticultural Society.

August 30.—Royal Horticultural Society. Committees meet at twelve o'clock; Lecture on "The Effects of Overhead Electrical Discharges on Plant Growth," at three o'clock, by Mr. J. Priestley, B.Sc.; Scientific Committee, four o'clock.

August 31.—Glasgow Horticultural Society. Carlisle Flower Show (two days). South Shields Flower Show (two days). Chester Agricultural Society (Horticultural Section).

Peter Barr Memorial and Gardeners' Orphan Fund.—The Peter Barr Memorial Fund is progressing steadily, but the executive committee are anxious that all who desire to honour the memory of the late Mr. Peter Barr should have ample opportunity of doing so. The general idea is the provision of a sufficient sum of money to always maintain one child through the medium of the Royal Gardeners' Orphan Fund, and also a medal to be awarded annually for special work in connection with Daffodils. Mr. Peter Barr's work in the improvement and introduction of Daffodils, and among hardy flowers, and his devotion to the Royal Gardeners' Orphan Fund, are well known; consequently the aims of the executive committee should find favour with those who knew Peter Barr and his work, and who desire to keep his memory green in connection with the charity he helped to found. Subscriptions should be sent to Mr. H. B. May, Chingford, the treasurer of the fund. Full particulars will be gladly furnished by Mr. William Marshall, V.M.H., Bexley (chairman), or Mr. Charles H. Curtis, Adelaide Road, Brentford (hon. secretary). Those who have contributed to the fund since previous publication are the Glamorgan Daffodil Society, Messrs. W. Robinson, H. Backhouse, J. Pope, Dorrien Smith, E. G. A. Nix, Haage and Schmidt, Hurst and Son, Harvey Clarke, W. Welchman, Byvoet Brothers, Guldemonde and Sons, R. and G. Cuthbert, B. Ruys, E. Kerston, Vilmorin and Co., Robert Veitch, Bellis and Meek, G. Forbes, C. Lemeslie Adams, Ant. Roozen and Sons, J. H. Stroud, G. Monro, N. Naylor, James Hunter, Lowe and Shawyer, Dobbie and Co., Mrs. Penton, Messrs. W. Mauger, C. W. Cowan, Foster and Robins, G. Monro, jun., Boyd Barrow, —. Beamish, W. H. Cranfield, W. Waemar, W. Goldring, Watkins and Simpson, Wheadon and Sons, J. S. Brunton, W. A. Watts, T. H. Lincoln, T. Kime, J. Bunting, J. H. Kerston, Otto Mann, V. van Zanten, P. van der Neer, Van Meerbeck and Co., W. H. Page, Van Hartman, Van der Eest, H. de Graaff and Sons, Charles Smith and Sons, Arnold Weiss, and Protheroe and Morris.

The British Fern Society.—On August 1, as is customary on the August Bank Holiday, this society held its annual meeting, this time at Moffat in Dumfriesshire as affording a good field for Fern-hunting before and after the actual business meeting, which was conducted at Beattock Junction for the convenience of some of the members. The report of the society was of a particularly satisfactory nature, the establishment of the *British Fern Gazette* in conjunction therewith having resulted in the addition of about one hundred new members and the placing of the society upon a far more substantial and far-reaching basis than before. Despite the expense incurred by the tentative

issue of the first four quarterly numbers, the balance-sheet showed an increase of the funds in hand, evidencing the complete success of the experiment, which it was resolved should become a permanent institution, Mr. Charles T. Druery, V.M.H., F.L.S., having consented not only to continue the editorship, but also, owing to the much-regretted resignation of Mr. G. Whitwell, the hon. secretary since the inception of the society, to undertake the secretarial duties as well. A very cordial vote of thanks was passed to Mr. Whitwell for his valuable services in the past. The treasurer, Mr. Wilson, being also precluded by his engagements from continuing to hold the office now that the work had so much increased, Mr. W. B. Cranfie'd very kindly consented to take that office over, especially as this involved a great saving of work, owing to his proximity to London, to the new secretary, Mr. Druery. The rest of the business was more or less formal, and terminated after the re-election of Mr. Alex. Cowan as president and chairman on that occasion in a hearty vote of thanks to him for his services in that connection, and particularly for the great trouble he had taken in making the needful arrangements at Moffat for the accommodation of the members. As usual on such occasions, Fern-hunting parties were organised for the exploration of the district; but, as the weather was very fickle, heavy downpours of rain, chilly gales and general moist conditions handicapping research materially, no very marked "finds" turned up, though a number of angustate and crispate forms of Lastrea montana, the prevalent species, were discovered of sufficient merit to be taken for growing on and testing, prior to which it was hardly deemed safe to definitely name them. At the meeting it was determined to hold the 1911 meeting at Barnstaple in Devonshire, in order to afford the many members in the Midlands and the North, where the species are relatively much less numerous, an opportunity of studying the more abundant and more varied Fern flora of the South of England, an opportunity of which the somewhat restricted and local nature of the society hitherto has prevented the enjoyment. In view of the new-established position of the *British Fern Gazette* as an organ for the dissemination of a wider knowledge of our beautiful Fern varieties and for bringing our native Fern-lovers into closer touch with each other, it is to be hoped that many such will swell the existing membership, the subscription to which, including four quarterly issues of the *Gazette*, is 5s. only. The secretary, Mr. Druery, 11, Shaa Road, Acton, London, W., will be happy to forward all particulars and a specimen number to intending subscribers on receipt of a post-card.

Roses at railway stations.—I have seen recently two very charming effects produced by planting rambler Roses at the back of long platforms at railway stations in Surrey. One was an exquisite mass of Dorothy Perkins, furnishing a glorious display of floral beauty, at Reigate Station. The other was an equally long mass of Crimson Rambler similarly trained at, I think, Milford Station, on the direct Portsmouth line from Waterloo. Both these examples served to show how possible it may be in so many similar positions to beautify railway platforms, which are usually bald and bare and uninteresting. One wonders that railway companies generally do not in some practical way stimulate station staffs to thus beautify their stations. Certainly all need not do so in the same way. Where platforms are narrow, trained rambler Roses are effective. Where there is more width, herbaceous borders are beautiful. Many station agents are enthusiastic gardeners, but lack opportunity or space to indulge their tastes. Railway companies should help them to do so.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

PROPAGATION.—The propagation in general of the various bedding plants should be proceeded with. It is important that the plan or colour-scheme for next season is decided upon before commencing the work. The cuttings should be carefully taken to avoid any disfigurement to the beds. The Geraniums may receive attention first, and although some of the hardier varieties will root very well in boxes, there is no doubt that pots are much the best for all. Five-inch pots are the handiest, and these should be filled with sandy soil, made very firm, and the cuttings dibbled in. One of the most important points in propagating is to have the base of the cutting resting on the bottom of the soil. If the base is made firm, the neck, or collar, of the cutting will look after itself. As the work proceeds the pots should be stood on ashes outdoors and be well watered.

Lobelia.—Pieces of this should be taken off and dibbled into boxes filled with sandy soil. They root very freely in a close cold frame, and will give more satisfactory results in the spring than old plants that have been potted up.

Antirrhinums and Pentstemons.—Cuttings of these should be inserted in a cold frame in a bed of sand and planted out as soon as sufficiently rooted. Alternantheras, Iresines and similar plants may be rooted in pots in cold frames, and should be placed in a warmer temperature later on.

PLANTS UNDER GLASS.

Arum Lilies.—Plants that have been resting in their pots will now require overhauling. The roots should be shaken out, sorted into their different sizes, and be repotted. A suitable compost is made up with two parts good loam and one part well-decayed cow-manure. The usual practice is to put three good-sized roots in a 9-inch pot. After potting, place them in a cold frame kept fairly close. Water should be sparingly given till growth commences.

Regal Pelargoniums.—Plants that have been kept dry may now be pruned, shaken out and repotted. Some of the old soil should be carefully picked off and the ball reduced to allow the plants to be repotted into smaller-sized pots than the ones they were in before. They may be placed in a cold frame and kept on the dry side till they commence to shoot, and then water must be carefully given for some time.

Freesias.—These should be potted without delay. A mixture of one-half loam and one-half leaf-soil, with a good sprinkling of sand added, suits them, and the bulbs may be placed eight to ten in a 5-inch pot.

Narcissi.—The early-flowering varieties should be obtained and potted, such as Henry Irving, Golden Spur, &c. Also pot Ixias, Lachenalias, early Tulips, the Colvillei section of Gladioli, Lilium Harrisii and L. candidum.

KITCHEN GARDEN.

Onions.—In many gardens the spring-sown crop is sufficiently matured to allow the bulbs to be pulled. They should remain on the open ground for two or three days, after which time they should be taken under cover. An empty fruit-house is an excellent place for the ripening process, providing there are racks to place them on. Turning over occasionally is beneficial, and when the bulbs are in fit condition they may be tied up in bunches ready for hanging up. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

CHRYSANTHEMUMS.

BUD-TAKING.—This important matter demands almost daily attention where large blooms are cultivated. It hardly lies within my province to give details of this operation, more especially as full practical hints are given from time to time in other sections of THE GARDEN. It is only constant and intelligent attention that will give success in this as in most other gardening operations.

Bush Plants.—The demand for abundance of medium-sized flowers is now very great in most establishments, and to have good results a systematic disbudding and thinning of the shoots must be practised. The bulk of varieties give the best blooms if a partial thinning of the flower-buds is carried out, while at all times it is advisable to rub out all growths on the stems that are not required to furnish the plant. While some sorts are far and away best when allowed to carry their blooms in sprays, others are finest when only one flower is left to develop on a stem. A typical variety for the latter method of culture is Freda Bedford, while Niveus, Market Red and Mlle. G. Debrie are excellent representatives of spray varieties.

Feeding.—No matter which style of growing Chrysanthemums is practised, feeding of the plants is necessary to obtain the best results. A number of different stimulants, used on alternate weeks, seem to give the best return. Never be tempted to apply any of the chemical mixtures in greater strength than recommended by the makers. Err always on the side of weak doses rather than those of too great a strength. In the former case, after the plants get accustomed to the stimulant the applications may be quite frequent.

POTTING FORCING BULBS.

Daffodils.—While it is much too early to pot up the bulk of Dutch bulbs, the Daffodil must soon be attended to. Select always first-size bulbs for pot culture, and keep in the plunge-bed for quite three months, as it is best to bring them on very slowly. Hard forcing is never satisfactory; so to ensure early bloom pot early, and have the bulbs well rooted before removing to the greenhouse. This is of great importance, as badly rooted bulbs never give fine nor abundant bloom. Use good fibrous loam, leaf-mould and sand in the proportion of three parts of the loam to two parts leaf-mould and one part coarse sand. Give no manure, but a 5-inch potful of bone-meal may with advantage be allowed to each barrow-load of soil. Six-inch and 7-inch pots should be used for Daffodil culture. Give a moderate amount of drainage, and do not make the soil hard under the bulbs, but the surface should be well firmed. Allow as many bulbs to a pot as can be comfortably arranged without undue squeezing. After potting set on a hard bottom out of doors and cover with ashes, sand or even light soil from cutting-boxes. Make the covering at least 4 inches deep over the pots. Really reliable forcing varieties are Emperor, Empress, Victoria, Henry Irving, Golden Spur, Glory of Leyden and Sir Watkin. If something very choice is wanted, Mme. de Graaff should not be overlooked. It does remarkably well in pots, and, indeed, it is only when growing under glass that the full beauty of this fine variety can be seen.

Roman Hyacinths.—For early blooming the bulbs should now be potted up and plunged. Soil similar to that recommended for Daffodils will do admirably, with the addition of about half a part of spent Mushroom-bed manure. The bulbs can be planted very thickly.

C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE FRUIT GARDEN

FRUIT NOTES.

FALLEN FRUIT.—Far too many people regard all the Apples that fall to the ground as "windfalls." It is, of course, indisputable that many of them really are so; but there are considerable numbers which are not, and it is herein that the danger lies. The grower who leaves these fruits lying where they have fallen is adopting a wasteful system, and at the same time is, in all probability, laying up trouble for himself in subsequent years, for it is well known that the maggot of the Codlin moth accounts for the fall of many, and it is not long after they are down before the enemy passes out of the fruit into the safer harbourage of the soil. The rule ought to be to pick up all fallen fruits immediately and to use them forthwith. If they are windfalls, then they must be used quickly, as they will not keep, and if they are infested with grubs, then it suffices to cut out the tunnelled portion and use the remainder of the flesh, which is quite good. By this system all are regarded as dangerous until they are cut and found to be that or the reverse, and the chances of definitely storing the Codlin moth to attack our own trees in the succeeding season are reduced to practically nothing. This will not ensure complete immunity, but if it were supplemented with thorough winter washing and spring spraying, the trouble from this pest would be quickly overcome; but concerted action on the part of growers is essential to this glorious state of affairs, and it appears hopeless to expect that we shall ever get it.

A SUBURBAN GARDEN IN BEDFORD PARK (THE FIRST GARDEN CITY).

RASPBERRIES AFTER FRUITING.—We speak of the different kinds of fruits as being spur or young wood-bearers, and among the latter the Raspberry is a striking example, for it carries the whole of its crop on the new wood, or canes as they are generally termed. To the thinking mind this at once suggests that, when the old growths have yielded all their burden, the sooner they are cut clean out the better, since they are not going to fruit again. And this is indubitably the correct method to adopt. Immediately the crop is gathered, remove the old stems from the base, as by so doing the young ones which are to carry the next crop receive the full amount of light and air from above and the food in the ground from below, and, needless to say, they thus vastly improve the future prospects. The best number of new growths to retain is usually six at a stool, and if these can be tied out fan fashion to a strained wire trellis, they will fruit more heavily than when they are perfectly upright; but individual circumstances must govern this point. Beyond the requisite shoots for fruiting, all suckers must be promptly removed, except such as may be wanted to extend the plantation, for they are simply depriving the valuable parts of the plants of the nutrient matter they require.

WEEDS.—There appears to be a widespread supposition that weeds are permissible among fruits, just as they are among Asparagus. The idea in both instances is, of course, absurd. It must surely be obvious that if weeds rob flowers or Cabbages of food, they will treat Asparagus and fruit in exactly the same way, and the rule which is so rigidly observed by all amateurs to completely subdue weeds in the flower garden should be extended to the fruit department as well. It is much too common a sight to see the ground beneath Gooseberries, Currants and other kinds smothered with weeds, towards the eradication of which no efforts seem to be made. This is the essence of bad gardening—the fruits are grown for their many virtues and the weeds are of no value whatever, and yet they are permitted to share the best foods. Let all growers make it the rule to have the fruit plantations as clean and free from weeds as other portions of the garden, for they are bound to be the gainers.

STRAWBERRY PLANTING.—This important task should be carried to completion with the utmost possible despatch, so as to give the young plants an opportunity of securing a good hold before root progress ceases for the year. Unless this can be assured, it is useless to expect that the plants will carry satisfactory crops in the first season. Of course, planting can be done as late as October, but it is then into nursery beds, and not into permanent plantations.

FRUIT-GROWER.

THE FLOWER GARDEN.

A SUBURBAN GARDEN.

THE accompanying illustration is of the sunny side of a small suburban garden, but, unfortunately, it gives no idea of the lovely masses of colour, or of the fragrance of Pinks, Sweet Peas and Night-flowering Stock. Under the fence, with a white Cluster Rose and white Jasmine trained on it, is an old border. Then comes a rather wide gravel path, on which last year the row of pots was put next the lawn, to give room and special soil for Sweet Peas. This spring the border in the foreground was formed out of the lawn for more Sweet Peas and for annuals. It has not been a good year for Peas. Those in the old border and pots have got up fairly well and given some good blooms—Lord Nelson, King Edward VII., Janet Scott, Navy Blue, Dorothy Eckford, Lady Grisel Hamilton, Countess Spencer, Dainty and others—but in the new border, which is of light and open soil, they have not been a success. The Pansies and the Pinks, Clarkias, Candytuft, Marigolds and Nasturtiums in the old border have been grand—great clumps of colour. Though the soil of the new border has not been suitable for the Peas, the annuals—with a top-dressing of well-decayed manure—have done splendidly. In the foreground is a mass of Godetia, then come Nasturtiums, next a fine bunch of Night-flowering Stock—dowdy by day, but pretty and oh! so sweet at dusk—then we have single Zinnias—sown *in situ* and doing well—Candytuft in mixed colours, Clarkia, Phlox Drummondii, Nigella and a few self-sown Poppies of kinds. We must not forget the Virginian Stock at the back of the new border; it has been a glorious mass of colour. Under the fence, at the bottom, Ferns can be seen, and these are backed by Solomon's Seal. In the right near corner is a small rockery (no, the despised brickery!), but the plants on it have been a success and are a great addition to the interest and pleasure of the garden—pink and white Saxifrages, Sedums of sorts, Creeping Jenny, Maiden Pinks (red and white), Aubrietias, Sweet Alyssum and Sempervivums—altogether a sweet, bright and restful little garden to refresh one's self in after a day's work in London, not to mention the interest and healthful exercise in tending it.

Bedford Park. J. E. K. CUTTS.

DAFFODIL NOTES.

"HERE WE ARE AGAIN."—Those of us who are "getting on" sometimes wish that the days of the old harlequinade would return—what a feast of fun the well-known words always heralded! "Here we are again" say the catalogues as we open our envelopes and out pops a Pearson's or a Barr's or a Currey's seductive little list of Daffodils, new and old, embellished with pictures and full of glowing descriptions of varieties that we have not got, but which we would like to have. "Here we are again," "Won't you buy? won't you buy?" Like "Bow bells" they lure us on, for the more mundane considerations of money or garden space are soon forgotten in the picture of the perfect flower in all its glory when spring comes round. I never can agree with Lord Rosebery about trade catalogues. To me they have the same enjoyment-giving power as a "Continental Bradshaw" has to him, as he turns over its pages by his own library fire. They are full of the future, and the only thing I dislike about them is the rude awakening when we find that we have neither the golden nor the silver key ready to unlock the door of the dealer's warehouse.

One of the first to arrive this year was that of Messrs. J. R. Pearson and Sons of Lowdham, near Nottingham. Three brothers carry on the firm's operations, and they arrange their particular departments according to the initials of their Christian names, so Duncan naturally looks after the Daffodils. A year ago some new ground was secured as being particularly suitable for bulb culture. It is very pleasant to the friends of the firm to know that the venture has turned out well.

In answer to my enquiry about the health of the bulbs, Mr. Duncan wrote me a few days ago: "Yes, we have had a good harvest of bulbs and got all indoors in good order. They lifted very well off the new land." This is good news to intending purchasers, for although some of the cheaper kinds are not home-grown, all the more expensive ones are. The 1910 catalogue is divided into two parts; one is headed "New and Rare Narcissi," and the other, "General List of Garden Narcissi (Daffodils)."

The first contains upwards of eighty varieties, which range in price from £35 a bulb, which is the price of Challenger, to 1s., which is the humble figure at which Bridal Flower (a pretty drooping Leedsii) is valued. Probably the six best are Challenger, Heroine, Pearl of Kent, Elfrida Pearson, Florence Pearson and Prima Donna. I saw the last four growing at Lowdham last year, and they all looked like their owners—the picture of robust health. I think if I were asked to take my pick of all in this list, I would select the last. It is so distinct with its pale yellow, round, overlapping perianth segments and its large yellow eye, which has a broad band of red round its edge of just the right shade to harmonise with the rest of the flower. Pearl of Kent is one of the whitest and the finest white trumpets, and since it was taken from its southern home in Kent has improved in appearance. The roughness of the trumpet has died away and the whole bloom has a more upright pose.

Elfrida Pearson (Minnie Hume × Weardale) is a splendid example of the famous Lowdham strain of Giant Leedsiis. Its distinguishing feature is the yellow colour of its cup, which does not fade with age. By the way, the unselected ones, out of which this was picked, are offered at 10s. 6d. per dozen, and at this reasonable price are excellent value and quite suitable for ordinary garden work. Florence Pearson (Emperor × Mme. de Graaff) is an almost white Ajax of good form and substance, quite a show flower, and vigorous and free in growth. Challenger is considered by Mr. Crosfield to be about the best Medio he has ever raised. It is the result of a cross made in the days when he had not begun to keep strict records of parentages. It is a magnificent broad-petalled, flat flower, with a large shallow cup of pale yellow, edged orange red, and white perianth segments. I liked it very much indeed at Birmingham, where I noticed it this year for the first time. Heroine can well be described as a beautified Albatross. The red edge of the cup is brighter and more pronounced, and the white perianth is larger and fuller. I long for the day when it will be as cheap as that variety is now—and then—won't I just have some. Among other varieties let me call attention to Alert, the early good doer Tenby; Giraffe, the vigorous short trumpet incomparabilis; Lord Muncaster, the tall, massive, golden yellow Ajax; Marguerite Durand, the Leedsii that yellows with age; Scarletta, the pretty orange red cupped variety that lasts so well and looks so bright; and Mrs. J. H. Veitch, that large, free-flowering trumpet that is now deservedly becoming better known and appreciated—one of van Waveren's best.

PRICES OF BULBS FOR SCHEDULE PURPOSES.—"Tyro" has written to the Editor to know what he is to do. A certain class is limited to bulbs of the value of 5s. each or less. In one list the variety (Will Scarlett) is priced at 7s. 6d., in another at 5s. Both belong to firms of the highest repute. Much—in fact, everything—depends upon the wording of the schedule and *how it is always interpreted!* In the Midlands, although I must own it is not strictly in accordance with the wording, we have considered it sufficient that an exhibitor should produce a catalogue of a good firm, showing that they sell it at the price at or below which it is eligible for competition. This seems a fair way of dealing with the matter, for all trade lists now are pretty widely dispersed by the halfpenny post, and no one is bound to deal with one firm and no other. Still, I always feel it is a little unsatisfactory, and doubtless the regulation causes others besides "Tyro" to be a little doubtful if their purchase will be admitted or disqualified. One way out of the difficulty would be to make a long list of what are admissible, but it would be very cumbersome. Another would be to publish the firms whose catalogues must be taken in settling the price, and say that if in any one of them the variety is listed at the limit price or under, it is enough to satisfy the requirements of the schedule. There is a third way which might be feasible *when* the Royal Horticultural Society's list comes out, and that is, a list might be drawn up by the committee for the different classes, and then each class might be ticked off in the Royal Horticultural Society's list with a different coloured chalk or mark by the show secretary. This would give him a good deal of trouble at the start, but, once done, corrections and additions might fairly easily be made. The working of the scheme would be this: The secretary should hold a standard list. Every member or exhibitor would have to buy a Royal Horticultural Society's list and then send it with, say, a small fee to the secretary to be marked. The schedule might read then: "Class X. For varieties marked red in official list, &c.," and so on. I have written fully on this point, as it is one that certainly needs consideration by Daffodil societies. JOSEPH JACOB.

A BEAUTIFUL FLOWER FOR ROCK GARDENS AND BORDERS

NEPETA MUSSINII.

THIS clump of Nepeta Mussinii started from two rooted cuttings planted last year; and here, on an angle formed by two dry walls, wind-swept and sun-scorched, it flourishes and flowers for five months out of the year. Neither wet nor drought seems to affect this kind-growing Cat-mint, and wherever it is planted it thrives, though I have doubts about it liking shade. Its labiate lavender flowers are never out of place, whether seen in a great drift like a mauve mist on a sandy southern slope, or as a framework to pink Antirrhinums, or else it may be used as a neutral undergrowth for beds of China Roses, and in each locality it pleases the eye. The culture of this Nepeta is of the easiest; any side shoot will strike. The better plan is to divide up an old plant in the spring and replant, and these divisions by July will form bushy plants and remain a mass of flower till the autumn. The clump in the illustration will shortly be cut back, and in about a fortnight the bud-spikes, which will appear above its grey Sage-like foliage, will blossom forth with all the vigour of renewed youth.

Linda Vista, Abergavenny. E. M. WHITEHEAD.

ONE OF THE CAT-MINTS (NEPETA MUSSINII).

THE EDITOR'S TABLE.

A YELLOW-FLOWERED AIMEE VIBERT ROSE.

We have received from Mr. W. Easlea, Danecroft Rosery, Eastwood, Essex, flowers of Aimée Vibert. Knowing as we do the charms of the old pure white form, and also its beautiful almost evergreen foliage, we are delighted to see an orange buff coloured bloom upon exactly the same style of plant. The flowers are chamois yellow, deepening to orange buff in the centre. The outer petals have peach-coloured splashes, and the buds are light crimson before they open. A well-developed specimen of this newcomer cannot fail to be useful, and we welcome it to our collection of garden Roses.

THE ROSE GARDEN.

WEEPING ROSES AND THEIR TREATMENT.

THESE have now become such a necessity to every Rose garden of any pretensions that it is difficult to realise how we have managed without them in the past. It is true that before the advent of Dorothy Perkins we had nothing to equal it for making a display, although the old Ayrshires and Evergreen Roses did duty then, and even now are not to be despised. Where space can be found for only a few, I would certainly advocate the Dorothy Perkins tribe, such as the type, White Dorothy and Lady Godiva, and, of course, Hiawatha, Delight and Excelsa. The simultaneity of blooming of these is a great point in their favour, although they appear just when the first bloom of the Hybrid Teas in the beds is waning. I think a much better effect is obtained when the heads are well opened out by means of wire trainers than by allowing them to droop naturally, for in this latter case we have rather a confused mass of growth. Personally, I prefer to see these weeping Roses in fewer but longer growths, so few, in fact, that an airy lightness is manifest, and this would be quite easy if the growths were regulated a little more. I recently inspected a fine collection of these weeping Roses, the only one missing being White Dorothy Perkins. This will be an immense gain, and will relieve both the pink of the ordinary form and also the scarlet of Hiawatha. I do not know that there is anything gained in having these weeping Roses of extraordinary height. Six feet is a very good height for the stem, or certainly between 6 feet and 7 feet. If higher, there is need for special staking, and they are only admissible in a very large Rose garden. After flowering, these weepers should be taken in hand and relieved of unnecessary growths, so that those shoots remaining may have a better ripening.

WICHURAIANA (JAPANESE) ROSE DELIGHT.

I SHOULD not be surprised to find in the course of a few years that this beautiful rambler surpassed in favour its rival, Hiawatha. The colour is, if anything, brighter, although not so vivid. There is a rich carmine glow about its blooms and a very clear white eye. The flowers, too, are larger, single, as in Hiawatha, but, like that fine sort, produced in beautiful trails that are so well displayed when the plant is grown as a standard. No one should miss an opportunity of growing both these fine Roses on standards not necessarily extra tall, and if the growths that usually appear near the trail of flowers are cut back before the buds expand, the effect is much enhanced, as these long pieces of superfluous growths hide the bloom to a large extent. This is evident very often in pillar plants, especially when the growths are somewhat crowded. Dorothy Perkins, Lady Gay, in fact, most of the large cluster varieties of R. wichuraiana, are much benefited by adopting this thinning of the spray growths from the clusters.

ROSE FRAU ALFRED MAUTHNER.

THIS is one of Herr Peter Lambert's splendid novelties of 1907, and a good sort it is, with beautiful smooth petals. The colour is a clear silvery pink on the outer petals, and the inner ones are bright carmine rose. Perhaps its weak point is in the drooping bloom, the stalk not being erect enough to hold up the flower; otherwise this Rose would be a fine decorative sort. The flowers open well, and they are both large and full. It is really remarkable how one accustomed to Roses can see diversity among the scores of pink varieties now in our collections, although to the careless observer one pink sort differs little from another. P

ROSE TEA RAMBLER IN A HIGHGATE GARDEN.

ROSE TEA RAMBLER.

TEA RAMBLER is one of the most beautiful of our early flowering climbing Roses, and if it is possible to add to its beauty, I think the best way to do so is to plant in juxtaposition a group of blue Delphiniums, such as is depicted in the accompanying illustration. The effect is charming, the two colours blending perfectly. In this district this Rose has done better this summer than the previous two years. Perhaps the rain has helped to bring this about. On our strong soil the flowers are at first inclined to a rosy pink, which afterwards passes to a softer shade. It is very free-flowering and slightly scented.

Ken View, Highgate. C. T.

TREES & SHRUBS

THE MEXICAN ORANGE FLOWER.

(CHOISYA TERNATA.)

FOR the southern parts of the country this Mexican shrub forms a valuable addition to the garden, whether grown for the sake of its evergreen foliage or for its fragrant white flowers, while further North it is well worth a position against a wall, for its leaves are a cheerful shade of green, and it quickly covers a considerable space. Under normal conditions in the open ground it forms a shapely bush up to 8 feet high and as far through, but by judicious pruning it may be kept considerably lower. When rubbed the three-parted leaves emit a strong odour, which is characteristic of many plants in the same order, while the roots have something of the yellow colouring which is peculiar to the Rue family. The flowers are borne in terminal heads in May and June, and are white with yellow stamens. When grown against a wall it is necessary to give it an annual pruning in order to keep the branches near the wall, and this pruning should be done as soon as the flowers fade. If grown in the open ground annual pruning is not required; but when branches appear to be growing wildly, a good shortening back will do good. It sometimes happens that branches die back suddenly from apparently no good cause, but as a rule the gaps so made are quickly filled up by new branches. Excellent plants may be grown in 10-inch pots for greenhouse or room decoration in spring, and for this purpose the plant has much to commend it. L.

FLOWERING SHRUBS IN WINTER.

THERE are considerably more shrubs that bloom during the winter months than many are aware of By winter months is indicated that period from the beginning of October to the end of March, when flowers outdoors are few, and those that appear have a much higher value than they perhaps would have if they opened at a different time, when

their beauty would be eclipsed by other and more showy kinds. The exact time of flowering depends chiefly on the weather, but the following may be said to be more or less in bloom during the period before stated. Among the larger-growing kinds which form small trees or large shrubs the Hamamelises (Wych Hazels) and Prunus davidiana are the largest in point of size. The latter is a native of China, and blooms about February. The single, Almond-like flowers appear on the leafless branches and are of a rose pink colour in the type, while in the variety alba they are white. The Hamamelises are characterised by flowers of various shades of yellow, with curiously twisted, strap-shaped petals. H. virginica flowers in October, but is not so showy as the February-blooming H. arborea, which has petals of a bright yellow colour and a claret-coloured calyx. H. japonica and H. j. var. zuccariniana have pale yellow flowers opening rather later than H. arborea. Daphne Mezereum var. grandiflora (autumnalis) opens its red, sweet-scented blooms in late autumn, while those of D. Mezereum and its white form alba appear in February and March.

The beautiful Erica mediterranea var. hybrida is in evidence from November to April, and is very showy with its rosy red or pink flowers. It is of dwarf growth, as also are the February-blooming E. carnea, with bright red blossoms, and E. carnea var. alba, white. These should be planted in masses for effect. A bed of either of these with the bright yellow Winter-flowering Jasmine (Jasminum nudiflorum) trained informally to poles above them makes a welcome display during the winter months. The latter flowers continuously from November to April, except during severe frost, which, however, only affects the opened blossoms. The Winter Sweet (Chimonanthus fragrans) flowers in February and March, and, though not showy, is appreciated for its fragrance. About the same time Lonicera fragrantissima (a shrubby Honeysuckle from China) opens its small white flowers, usually first noticeable by their sweet scent, which carries one in imagination to June and the hum of bees. In late February and through March we get Berberis nepalensis, with its terminal racemes of yellow flowers; the pure white Magnolia stellata; Spiræa Thunbergii, with its branches covered with tiny star-like, white blossoms; Andromeda floribunda and A. japonica, with terminal clusters of white, bell-shaped flowers; the light purplish pink Rhododendron præcox; and the Laurustinus. The bright crimson Rhododendron nobleanum is in bloom more or less from November to April, the exact time depending on the locality and climate.

Bagshot, Surrey. J. CLARK.

SPARTIUM JUNCEUM.

THE yellow Spanish Broom (Spartium junceum) is a very useful shrub for planting in poor soil in various parts of the garden or pleasure grounds for the sake of its golden blossoms, which are borne with great freedom from early July until September. Its Rush-like, pithy branches are well known to many people, though, strange to say, it is only now and then that one finds it planted extensively. Naturally of vigorous though loose habit, it quickly becomes ragged if attention to pruning is neglected; therefore it is necessary to keep the points of the branches well shortened in during the first year or two of its existence, and well prune the bushes over once a year afterwards. Occasionally plants may be noted which have been clipped into regular globes with shears, and when well furnished with branches to the ground they are exceedingly showy when in flower. Such severe pruning is not, however, to be encouraged indiscriminately, and the one annual pruning in spring suffices. As young specimens transplant very badly, it is necessary to grow them in pots until they can be planted in permanent quarters. No difficulty need be experienced in obtaining a stock of plants, for seeds germinate freely. A double-flowered form is known, but it is less beautiful than the type, and may be looked upon as a curiosity only. To raise a stock of it, pieces of branches should be grafted on to stocks of the type. D.

AN OLD MILL-RACE CHANGED TO A ROCK GARDEN.

HOW I MADE AN OLD MILL-RACE INTO A ROCK GARDEN.

I WAS fortunate enough to find an old disused mill-race running through the side of my garden on coming here three years ago to Pebmarsh in Essex. It is, roughly speaking, about 45 yards, and is a wedge-shaped cutting with a narrow stream at the bottom. Operations were begun in February, 1909, by peeling off the grass and digging out the weeds and roots. We built a wall at the top to keep the path that runs along it from sinking in when the grass was taken off. This is made with old bricks, and earth was rammed in between the rows and plants put in as the wall was built. These soon got hold, and in a very short time were effective. I had ten tons of stone from Derbyshire, which, though rather white at first, soon got seasoned and at the end of a year is quite a good colour. The idea was not so much a rock garden, properly speaking, as a rocky bank furnished with everything that would grow and look well at all times of the year. I did not have very large blocks, as I had to do the work with one man and could not move anything very large. Good-sized pieces were first got into position at the bottom to keep the banks from running into the water. These seemed to settle themselves by their own weight in the soft sides, and we put them fairly close. Once this winter the whole place was flooded to within 3 feet of the top of the bank, but the stones are exactly as we put them, and nothing was hurt. Then came the path with stone steps from the bank. The path is paved with old tiles which were found buried in one part of the garden and flat stones. Among these such things as Sedums, Mossy Saxifrages, Arenaria balearica, Acæna microphylla and many more soon found a home with tiny Ferns in the chinks. Near the bridge at the bottom Rose Lady Curzon reaches nearly to the walk, and a nice plant of Polygonum compactum was planted to break the line. Œnothera taraxifolia does well, and is lovely in the evening with pure white flowers opening as the sun goes down. A large group of Œ. speciosa is looking very well now (the end of July), also Œ. Youngii by the water. Œ. roseum from seed is not yet out. Down close by the water I have planted several Spiræas, Iris sibirica (blue and white), three groups of I. Kæmpferi, Anchusa, pink and yellow Loosestrife; in the water Flowering Rush, Bog Bean, Water Buttercup, &c. On the shady side beds of hardy Primula made a good show. At present I have only P. pulverulenta, denticulata roseum and frondosa. A grass walk runs along the top on either side. One side is bordered with climbing Roses trained up old Apple trees, with groups of Iris and white Lilies in between; and on the other side there is a long border of many different groups of Iris germanica in fine variety, and three plants of White Brooms. In the rocky terrace are planted Rock Pinks, Aubrietias, alpine Phlox, Cinerarias, Veronicas, Campanulas, Violas cornuta and gracilis, also Violettas and Gentians. Iris reticulata did very well, also Sparaxis Fire King, Ixias and Fabianas; these latter were all protected during the cold. Calochorti have been very disappointing, probably my own fault. On the opposite side, which is all grass, I planted in the autumn large groups of Tulips, Daffodils, Scillas, blue and white Ornithogalum pyramidalis and nutans (the latter looks lovely in the grass). These were a great success, and the bank was beautiful for some weeks. Over the arch Corydalis and Aubrietias, Arenaria montana and Linaria creep, and long branches of Rosa alba repens hang down 5 feet or more. Rosa sinica Anemone is growing well close by, and a fine bush of Berberis and some bushes of Maiden's Blush make a whole very pleasant to the eye. B.

GARDENING FOR BEGINNERS.

NOTES FROM A SUBURBAN GARDEN

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—There will be some fine sturdy basal shoots of Violas available for cuttings now. The plants have flowered very freely indeed this year; it has been, so far, an ideal season for them, and every success should attend the propagation of the cuttings. Even the strongest plants will degenerate if left to grow in the border from year to year, so that it is absolutely necessary to take cuttings every autumn. The border most suitable for them is one on the north side of a low wall; then they will be in a cool quarter, but not sheltered to such an extent as to be drawn up weakly; this would be fatal. Cuttings about 3 inches long are the best. The slips must be taken off near the base of the old plant, the two or three lower leaves removed, then severed just below a joint, and each cutting will be thus prepared for insertion. Cover the surface of the prepared border with coarse sand and insert the cuttings about 4 inches apart. They may be put in boxes or cold frames also. There are many tall-growing kinds of plants that flower in the early part of autumn just at a time when strong south-west gales blow, and so we must be prepared to stake the specimens in due time. The Michaelmas Daisies and early flowering Chrysanthemums must be attended to where stakes have not already been placed in position. The quality of the flowers of all kinds, but especially those of Chrysanthemums, is much improved by thorough soakings of manure-water given twice weekly while the soil is moist. The time has now come when it will be necessary to sweep the lawns frequently, as leaves are beginning to fall from the trees.

Vegetable Garden.—Readers of THE GARDEN who commenced to collect manure for Mushroom-beds a few days ago will now be anxious to make up the beds. Of course, there is a right and a wrong way of doing the work, and we all wish to do it the right way. It is necessary to have flat-shaped beds quite 1 foot deep—I prefer that they should be 15 inches—when the material is firmed down. Scatter the manure loosely on the space selected, one or two barrow-loads at a time, and make it very firm by treading before adding more. In this way the bed should be built up. Do not insert the spawn until the heat is declining and registers about 85°. Cover the manure with new sifted loam 1 inch thick, make it firm, and finally cover the whole bed with clean straw. The bed must be kept in the dark and sheltered from cold draughts. The earliest Celery plants should be finally earthed up and the main-crop ones earthed for the first time. Thoroughly clean them first and soak with diluted manure-water. Herbs in flower must be cut while dry ready for storing.

Fruit Garden.—Peach, Nectarine, Apricot and other fruit trees that are growing against walls, both inside and outside, from which the crops have been gathered, must have as much air as possible now and be thoroughly cleansed. All surplus shoots should be cut out at once and the remaining ones heavily syringed. Where possible, use the garden engine for this purpose. Do not neglect the borders. Very dry borders are a fruitful cause of bud-dropping in spring. Clear water only need be given, but it must be applied with a liberal hand, not continually, but often enough to prevent any dryness and to maintain the soil in a medium state of moisture. Suckers—shoots growing from the roots of the stocks—must be removed also. It will not be enough to simply break off the shoots at the soil surface, as the cultivator would have more trouble with them next year owing to the increase in the number. Remove the soil and sever the suckers from the roots themselves. Protect ripening fruits from wasps and birds.

AN EDGING OF CANDYTUFT IN A SUBURBAN GARDEN.

Greenhouse and Frames.—Every week now there will be an increased demand on the space in the greenhouse as certain plants from the open a and frames are brought in. Plants lifted from t open ground and potted require a close atmosphe for a time afterwards; but those already establishe in pots must have plenty of air in their new quarte under glass. Mignonette in pots, whether now a greenhouse or a frame, should be well exposed the light and freely ventilated, so as to secure sturd shoots that every cultivator delights to see. Cole and similar plants that are now losing their leav should have their tops removed and inserted cuttings; then the old specimens ca be discarded and thus make roo for winter stock plants. A. A.

NOTES FROM A SMALL GARDEN.

THOSE who only have small ga dens are apt sometimes to thin that such are not worth troublin about; but this is quite a mistak as a vast amount of pleasure can b derived from a garden of quit small dimensions. Indeed, th beginner in gardening will usuall find that much better results ca be obtained from a small garde than a large one, for the simp reason that everything which grown is under direct observatio and gets full attention. In larger garden such close attentio is not possible. The only dang where the area is restricted is tha of overcrowding, and the beginne must steadfastly avoid this ver common error.

Naturally, the plants grown wi vary according to the tastes the owner. The advice generall given is to grow a few kinds onl and grow these well, advice that good in a way, but which, whe adopted, does not always giv satisfaction. For instance, whe only a few kinds of flowers ar grown, there will be many period when no blossoms will be available whereas, when a larger number ar grown, the owner will find possible to always have at least few flowers during the spring summer and autumn months.

In the early spring, bulbs wi give a rare display, and as thes can be either lifted when thei growth is finished or other plant put out between them, they ought to be largely grow by the owner of a small garden. Snowdrops, Winte Aconites, Chionodoxas, Scillas, Crocuses, Narciss Tulips and other kinds may all be grown in this way many of them, especially the four first named thriving well under shrubs, or in grass where thi can be allowed to remain uncut until the leaves o the bulbs have died down. Where groups ar planted in the border, or edgings are made of such as Crocuses, annuals may very well be sown be tween them as soon as the flowers have faded, an by the time the leaves have decayed the annual will be well on the way towards flowering. The edging of Webb's mixed Candytuft shown in the accompanying illustration was sown in this way

between a broad band of Chionodoxa sardensis, and the effect for some weeks has been very beautiful indeed, the colours in this strain being nicely blended. Other annuals that lend themselves well for growing in this way as edgings are Leptosiphon densiflorus hybridus, Alyssum Carpet White, Virginian Stock, and indeed almost any that are of a reasonably dwarf, free-flowering character.

The other illustration shows a bed of dwarf Stocks that were raised from seed sown in a cold frame the second week in March. In the spring this bed was filled with Narcissus Emperor and edged with Pinks, the grey foliage of which harmonised very well with the Daffodils. The Stocks, when large enough, were planted between the bulbs, and the result is a brilliant summer display, although in the illustration the red Stocks, which predominate, do not show well. The edging of Pinks became too ragged after flowering, and pipings were taken from them and planted in another part of the garden, and the Alyssum, which can be seen, was transplanted from another edging and is now doing duty with the Stocks. It is constant attention and intelligent foresight respecting small details such as these which tell strongly in gardening within a restricted area. In these days, when so much is heard of the so-called French or intensive system of gardening, it may be well for us not to ignore the possibilities of a small garden and the intensive culture which is being carried on in hundreds of such to-day.

As with flowers, so with vegetables. The beginner who makes up his or her mind to grow these well will be astounded at the amount of produce of reasonably good table, but not exhibition, quality it is possible to obtain from a small area. Here, again, the advice to grow only a few kinds will not always, or indeed often, prove altogether satisfactory. Take salads, for instance. In a household of moderate size only a few Radishes, Lettuces, Onions and similar kinds will be required, but this is no reason why they should not be grown. An early Radish-bed can be utilised later for sowing seeds in of such biennials as Wallflowers and Canterbury Bells. Then a few early Potatoes may reasonably be grown, as when lifted the ground becomes available for such autumn and winter greens as Savoys and Kales, and also for late Turnips. If a row of early Peas can be accommodated, these will be cleared in time for a row of Celery, which, although late, will give small, crisp heads that will be far more highly appreciated in the home than the large, coarse examples brought to the door by the average greengrocer. One might extend the suggestions for dealing with a small garden to very great lengths, but sufficient has been said to encourage those beginners who may be despairing because they have not a large area of garden at their disposal. To enjoy a garden to the full the owner must be master of it and be able to manage it comfortably; otherwise the work will become irritating. The beginner should follow his or her own tastes regarding what to grow, and make full notes at the time when the plants are at their best; these will be found most valuable for future reference. ANGLIAN.

MILDEW ON VINES.

LAST year was a very favourable one for mildew on Vine leaves, and the present season is, so far, about the same. The borders must be kept in an even state of moisture, and the ventilation of the structure should be well managed. By this I mean that the soil should never be allowed to get too dry nor too wet, and the ventilators must be so manipulated that ample fresh air is admitted without exposing the leaves and fruits to cold draughts. The coldest draughts generally come in through the front openings, and if the side of the house is close to a wall or similar structure, the air from such a quarter, even on a fine day, is extra cold, and it is only wise to open wide the ventilators so situated during the middle part of the day when the outside air is calm and warm. Very often Vines growing in greenhouses are mildewed owing to exposure to cold draughts passing through the house from ventilators and doors.

FEEDING CHRYSANTHEMUMS.

STRONG STIMULANTS.

THE beginner is generally anxious to make his plants grow, and to this end feeds them in season and out of season. The greater part of May and June was bad for the plants, being cold and wet, and those specimens that were placed outside and newly potted suffered in consequence; root action was slow and many basal leaves were lost. Now, feeding to be beneficial must take place when the pots are well filled with healthy roots, and the first applications of stimulating foods must be given in a weak state. I am not, however, intending to deal in detail with feeding generally, but to briefly refer to the way in which strong stimulants should be applied so as to get the most benefit from them. Nitrate of soda, nitrate of potash and sulphate of ammonia are the kinds of stimulants that are mostly used. Superphosphate and sulphate of potash are also excellent for stimulating growth, and this should really be the chief aim of the cultivator. About three applications of any of the above-named artificial manures are sufficient in one season. If a plant is well rooted but rather weakly and backward in growth, then a judicious application of nitrate of soda or sulphate of ammonia will work wonders. I should like to impress upon beginners the importance of not exceeding the doses I name here. Half an ounce to a gallon of tepid water will do much good and be quite safe if the plants are well rooted and the manure is applied while the soil is fairly moist from an application of clear water. Do not apply stimulants while buds are being "taken," and allow at least ten days to pass before giving a second or third application respectively. One dose may be given after the plants are housed to hasten the development of the blooms. Only those plants can be benefited that possess plenty of roots and leaves. B.

THE TOWN GARDEN.

CHINESE ASTERS.—As late-flowering summer plants having a value of their own for both large and small gardens, the Asters are unique, and will presently be in their fullest beauty. How early or late these flowers will be depends not a little on when the start was made and the variety grown. To-day, however, there is sufficient variety to suit all tastes. Some like the Dwarf Bouquet race, with rounded, rather formal-looking flowers, and others like the newer Ray Asters, whose finer, almost thread-like florets are most artistic and greatly valued by the florist in decorative work. The single-flowered forms so much in vogue during the last year or two are very showy and find many admirers. Not least among the many merits of these Asters is their value when lifted for filling beds previously occupied by other things. Hence by growing a bed or two apart, the sudden failure of a crop in the flower garden can be remedied. These things, too, are alike valuable for the border where annuals of another type have flowered earlier in the year. The greatest enemy of the Aster, perhaps, is black fly, and the plants should be syringed with Tobacco water or some approved insecticide in advance to keep it in check.

A BED OF STOCKS EDGED WITH ALYSSUM CARPET WHITE.

ARUM LILIES.—In "The Town Garden" notes in the issue for June 18 I had something to say about these plants, and promised a further note at a later date. I then recommended placing the pot plants on their sides to prevent their getting any water; in other words, to enforce a rest upon them after a long season of flowering. This was intended in place of the ordinary treatment to plant out in trenches of rich soil, a proceeding that, in conjunction with the watering which the advocates of that system advise, entails much labour at a busy time. The system I advise, while affording a needed rest to the plants, entails no labour for weeks. Now, however, the plants should be brought from their resting-places and stood out on any open piece of ground or path in full exposure. Presently—that is, a few days hence—the plants should be freed of all their soil, the offsets removed, and finally repotted in rich turfy loam. Bury the tubers 1 inch deep in the soil, and give the plants a thorough watering when the work is completed.

YELLOW-FLOWERED TUFTED PANSIES.—I have frequently been struck with the value and persistent flowering of some of the older varieties of these flowers; indeed, some of them are almost perpetual flowering. Those of the yellow-flowered class I have more particularly in mind are Bullion and Ardwell Gem, while Royal Sovereign deserves mention because of its rich colour and fine form. Of course, there are others, but as numbers often confuse and render a choice difficult, these need not be mentioned now. Those named possess the merit of perfect hardiness, their vigorous constitution and perpetual growth being responsible for the continuous flowering to which I have referred. Those who have the space at their command should allow some of these Tufted Pansies (Violas) to remain a second year. I know of no plants affording such sheets of colour as these when thus treated.

DWARF PERENNIALS.—At this season of the year there are a few choice perennials in flower suitable both for town and country gardens that, because of their free-flowering attributes, should not be overlooked. By "dwarf perennials" is intended plants that rarely exceed 2 feet in height, and of such as these Rudbeckia Newmanii (golden), Aster lævigatus (rose), A. Amellus and a host of its varieties in mauve, violet and other shades, and A. acris, giving clouds of violet colour, are worthy of mention. So dwarf are these things that no artificial support is required, the bushy examples remaining quite a feature over a long period.

PINKS.—The cuttings, or pipings, of these inserted a few weeks ago should now be well rooted and fit for transferring to their permanent quarters. The Pink family prefers a limy or chalky soil, and soils in which lime is known to be deficient should have old mortar added if possible. The Pink, however, is not fastidious, and the majority of well-drained soils suit it.

E. H. JENKINS.

ANNUAL FLOWERS AT READING.

THE acres of flowering annuals in the London Road trial grounds of Messrs. Sutton and Sons, Reading, may be said to constitute one of the greatest floral feasts of the year, quite apart from the lessons such a trial conveys generally to intelligent observers. We have seen them in times of much wet, and we have seen them as in 1909, and again during the present season, when leaden skies and cold and sunless days and nights have succeeded each other practically for weeks on end, weather, indeed, calculated to check the flowering of many a plant and provide the visitor with a picture of "nothing but leaves." Instead of so dismal a failure—a failure which would reflect discreditably upon the enduring qualities and character of annuals in general—we have nothing but an unqualified success—a brilliant and ever-changing floral panorama which no pen-picture could ever adequately portray. It is, indeed, a remarkable sight, and whether viewed in an individual sense or collectively, it is doubtful if these indispensable flowers have ever been finer or seen to greater advantage. To say so much of the hundreds of things—we know not how many—on trial is to speak volumes for their hardiness and enduring capabilities, yet it is but the barest justice in the circumstances. To the student of such things, to the gardener in public park or private garden, one of whose chief duties is the providing of a continuous display of bright or pleasing flower-masses, here is a lesson indeed, a comparative lesson, too, the value of which it is not easy to estimate and which cannot be exaggerated. In a trial of such huge proportions—the trial grounds of Messrs. Sutton extend to some sixty acres, not less than a third of which probably is devoted to flowers—many and varying stocks of things appear, and the most approved kinds are seen side by side with the novelties from all available sources, British or foreign. Then, again, the earliness or successional flowering of any particular variety or stock is easily proved or disproved, the entire series of any given genera or group being sown and covered in within a few minutes or even seconds. Of an importance even greater than this, inasmuch as it concerns the millions who "garden" in the open air during the spring, summer and early autumn months, is the additional fact that the great wealth of blossoms of which we write is the result of seeds sown in the open ground and where the plants are intended to flower. This is so with 90 per cent. or more, the exceptions being the China Asters and a limited number of others which experience has proved to be best if otherwise treated. Then there is the obvious lesson of the soil, and this, viewed in conjunction with the display and the myriads of buds to form a succession, should render it clear to the observant mind that the majority of garden soils are too greatly enriched with manure. Nor is this all. It is equally clear that vivid colouring and the best form in the flowers are the outcome of a soil that the majority of gardeners would desire to improve. There is no coddling; the thing would be impossible. There is no shelter; every seedling is exposed from the moment its cotyledons appear above the soil to wind or frost, rain or drought, heat or cold. Meanwhile the brilliant display is the best possible tribute to the utility of such a test so far as this concerns the public as distinct from the seedsman. There are, not unnaturally, object-lessons galore, but whose value, being largely comparative, must be seen to be fully realised. We may, however, note some of the finer flower-pictures at the time of our visit. In the spacious central main walk, seen alike from the London Road and the railway, are planted effective borderings of Malope grandiflora (red), the yellow-flowered Bartonia aurea, Godetia Marquis of Salisbury, and that fine variety of Chrysanthemum segetum known as Morning Star, with a bordering of white Alyssum. The long stretches of flowers from the more effective of these constitute a most imposing display, a display not of the moment, but of weeks on end. The Morning Star Chrysanthemum was first introduced by Messrs. Sutton in 1897, and it has been the precursor of a most valuable set, of which Evening Star, Eastern Star and Northern Star are members. The flowers are large, and in the first-named variety of a soft yellow or primrose, that delightful tone not infrequently associated with some of the choicer Narcissi. Eastern Star has a deep chocolate centre; Evening Star is a rich golden yellow-flowered sport of the first-named; while Northern Star has elegant flowers of ivory white, with sulphur zone at the base. These are all handsome and free-flowering, and for which no praise is too great. The attractive range of colours seen in Chrysanthemum carinatum and its varieties, and in which crimson and white and yellow are banded together in a solitary flower, are also in profusion, such as burridgeanum and atro-coccineum being the more conspicuous. There are delightful varieties, too, in the C. coronarium class, the bush-like plants of 18 inches high and through, loaded with blossoms, being admirable. Nor are these Chrysanthemums merely summer border flowers; they are alike valuable for pots and for greenhouse work, and have long since been regarded ideal subjects for market work. Hence we dwell upon the dual merits of plants that are valua alike from many different points of view. Gr stretches of colour were afforded by the Wh Spiral Candytuft, Lavatera alba splendens, t Shirley Poppies, and by such double Poppies White Swan and Cardinal Salmon Pink, a m brilliant flower not more than 2 feet high. Qu brilliant, too, and a mild surprise in its way, w the newer annual Dimorphotheca aurantiaca, whic from a March sowing in the open air, was floweri profusely. Lupinus hybridus atrococcineus h spikes of flowers of crimson and white, singular effective. Perhaps the most wonderful pie of colour on an extensive scale was Sutton's Oran King Marigold, the only plant we remember havi the same colour tone being Asclepias tuberosa, b which is pale by comparison. In this Marigo there is a brilliant fiery orange tone, rendering unique and doubly valuable in a plant who flowering is practically limitless. Shasta Daisie or white Marguerites in improved forms, the love and varied colours of the Sweet Sultans, delightf stretches of Stocks, of which Beauty of Nice, salmon pink, and deep mauve are very fine, e quisite beds of Clarkias, Nemesias and the like a but a few of the endless variety of things to be see here. We cannot, however, pass the seedlin Carnations, a plot of half an acre or more loade with sheaves of blossoms approximating to shoc of Corn because of the endless array of flower-bu and blossoms, and which constituted one of thos fine object-lessons in garden craft the trial groun contained. There were Carnations of all classe flakes, bizarres, fancies, selfs in many colours an the like, the whole creating a sumptuous feast these flowers impossible of description.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends make* THE GARDEN *helpful to all readers who desire assis ance, no matter what the branch of gardening may be, an with that object will make a special feature of the "Answe to Correspondents" columns. All communications should clearly and concisely written on one side of the paper onl and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistoc Street, Covent Garden, London, W.C. Letters on busine should be sent to the* PUBLISHER. *The name and addre of the sender are required in addition to any designation may desire to be used in the paper. When more than on query is sent, each should be on a separate piece of pape Plants for naming should be clearly numbered and securel packed in damp grass or moss, not cotton-wool, and floweri shoots, where possible, should be sent. It is useless to sen small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Seedling Pinks (*Andrew Campbell*). — Th Pinks you forward for our inspection are an inter esting series, though we do not consider them wort naming unless they present merits distinct fro the flowers you send. The Campanulas are seed ling variations of C. persicifolia and inferior t many good types of this flower. The Armeria i a good form of A. Cephalotes rubra, and if greatl superior to it when grown by its side should b perpetuated. The variation in the Dianthus is o frequent occurrence, and in large batches of seedling numbers may be seen, not all of which are constan in their colour markings.

Plants for shady borders (*J. G.*).—Th success or failure of hardy plants grown in shad places depends not a little upon the amount or th intensity of the shade, the near proximity of tre roots and other things. On the other hand, man plants are quite indifferent as to shade or sun o

wet or dry soils. Of particular value in the shade, however, are the Lenten and Christmas Roses. The Megaseas or broad-leaved Saxifragas, Hepaticas, Day Lilies, Doronicums, any of the Peach-leaved Campanulas, *i.e.*, C. persicifolia and its varieties, the Mossy Saxifrages, which are a host in themselves, quite a large array of Flag and other Irises, the Japanese Anemones, such Lilies as canadense, Hansonii, pardalinum, croceum, the forms of davuricum and many others, Trollius, Tradescantia, Ruscus aculeatus, R. racemosus, Tussilago fragrans, Foxgloves, nearly all classes of Ferns, many species of Primula, though more particularly P. denticulata, P. cashmiriana, P. rosea, P. pulverulenta, P. Sieboldii in variety, Scilla nutans, Campanula, Œnothera biennis, Buphthalmum speciosum, Senecio japonica, Saxifraga peltata, Gaultheria Shallon, G. procumbens, Omphalodes verna and Solomon's Seal are a few among many well suited to shady places.

Polygonum lanigerum and Artemisia stellariana (*E. S. L.*).—We are not aware of these possessing any synonyms. The first-named is easily raised from seeds, and any good seedsman would doubtless secure it for you if you placed an order in his hands. The Artemisia is a very old plant, and was much used in the pattern gardening of years ago. In all probability Mr. Amos Perry, Hardy Plant Farms, Enfield, could supply you with plants, or one of the hardy plant dealers. The better way to treat the Alyssum is to plant a batch apart and save seeds from the dwarfest and most compact. The more important seed houses plant out large areas for seeding, taking out all but the dwarfest and most compact. Such firms as Messrs. Sutton, Barr, Carter or Webb could supply you with compact strains.

Pansies for inspection (*H. S. W.*).—The pests from around the Pansies, which have probably been the cause of the trouble by damaging the roots, are millipedes and woodlice (one, the light brown one, was a centipede, and not injurious). The application of Vaporite or some other soil fumigant around the roots would, no doubt, tend to drive the pests away. Traps made of hollowed-out Potatoes placed just below the surface of the soil and near the affected plants may also be used with advantage. 2. It is probably something else affecting the Gooseberries as well as the flies you mention, but they do much harm, and it would be well to spray the bushes at the first sign of any of the aphides with paraffin emulsion or nicotine wash. 3. Paint all the places where you find the woolly material on the Apple stem with methylated spirit, rubbing it in with a brush. In the winter forcibly spray with caustic wash so as to get into all the crevices.

Day Lily (*J. W. S.*).—The yellow-flowered Day Lily you submit is Hemerocallis flava, one of the best of its genus, and a good early summer-flowering perennial also. The shades of colour found in these plants are usually yellow, though varying from the palest primrose to tawny orange, and giving flowers from the middle of May to the end of August. The species are not numerous, but have been greatly strengthened by recently introduced hybrids. All the kinds are easily cultivated in rich garden soils. The following is a selection: H. aurantiaca, rich orange; H. a. major, very fine; *H. citrina, pale yellow; *H. disticha fl.-pl., orange red; H. Dr. Regel, rich orange, a grand plant; H. Dumortieri, very early and dwarf, yellow flowers, marked orange red externally; H. flava, clear yellow, early; *H. luteola, deep yellow; H. middendorffiana, orange yellow; and H. Thunbergii, pale sulphur yellow, late flowering. Those marked with an asterisk have a bold habit of growth.

Flower garden in May (*M. P.*).—Whether the Violas, Myosotis, Tulips, Wallflowers and Poet's Narcissus are in good flower for the time you require them will depend upon the varieties employed, the size of the plant and the time of planting to a very large extent. If the Narcissus you refer to is the May-flowering N. poeticus recurvus, we fear it would not be open to make a display much before the end of the month. Violas, Myosotis and Wallflowers set out early in September in sturdy and youthful plants should do you good service at the time. As you have young Viola plants now, you could by planting-time double or treble your stock, and in this way plant the more freely. The colours you have would do quite well. You might plant the four corner beds with such Cottage Tulips as Orange Beauty, Golden Eagle, Inglescombe Scarlet and La Merveille, rich coral red. The Tulips may be planted 6 inches to 9 inches apart each way, or more than this if the surface of the beds is freely carpeted. Clematises are occasionally employed in basket-beds and other arrangements, but we do not generally advocate highly mounded beds for such things. The most serviceable varieties for bedding are those of the Jackmanii set. We cannot decide for you what quantity of manure will be required, as this depends entirely upon circumstances. The soil should, if possible, be dug about 18 inches deep, and if no manuring has been done recently, a heavy dressing, provided the manure is well decayed, will do no harm.

TREES AND SHRUBS.

Shrubs for a north wall (*Wickwar*).—To attain a height of 25 feet you will require trees, not shrubs. As quick growth is very essential, you cannot do better than plant Poplars, which soon form an effective screen, while, what is more, when the necessary size is attained they are very amenable to pruning. The same may be said of the Lime, but it does not grow so quickly as the different Poplars. Of course, all the above are deciduous; but if an evergreen subject is needed, you cannot do better, we think, than plant a screen of Thuja gigantea. Of low-growing shrubs the following are all likely to suit your purpose: Aucubas, both green and variegated; Berberis Aquifolium, 3 feet to 4 feet, April, yellow; B. buxifolia nana, 2 feet, May, yellow; B. empetrifolia, 18 inches, May, yellow; Olearia Haastii, 4 feet, August, white; and Vincas (Periwinkles), blue and white. The above are evergreen. Of deciduous subjects the following are all good: Berberis Thunbergii, 2 feet, May, greenish yellow, and red berries in autumn; Cydonia japonica, 4 feet to 5 feet, spring, red, white and pink varieties; C. Maulei, 2 feet, April, terra-cotta colour; Daphne Mezereum, 3 feet, February and March, red; Escallonia philippiana, 4 feet to 5 feet, July, white; Hypericum calycinum, 1 foot, summer, yellow; H. moserianum, 18 inches, August, yellow; H. hookerianum, 3 feet to 4 feet, August and September, yellow; Magnolia stellata, 2 feet to 3 feet, April, white; Philadelphus Lemoinei, 4 feet, July, white; Ribes aureum, 4 feet, spring, yellow; R. sanguineum, 4 feet, spring, rosy red; Spiræa Anthony Waterer, 18 inches, summer, crimson; S. arguta, 4 feet, April, white; S. Bumalda, 2 feet, summer, pink; Viburnum plicatum, 4 feet to 5 feet, May, white; and Weigela Eva Rathke, 4 feet to 5 feet, summer, crimson. As a hedge in place of the Laurel, the Golden Privet under certain conditions would be very attractive, while the following hedge plants can be kept down to almost any height: Berberis Darwinii, Holly, Olearia Haastii, Euonymus japonicus, Lavender and Rosemary. If Rhododendrons thrive in your soil, nothing finer could be chosen for planting as isolated shrubs on your lawn. Such varieties as Pink Pearl, pink; John Waterer, crimson; and Michael Waterer, bright scarlet, are particularly fine. Other good lawn shrubs are Berberis stenophylla, Cerasus J. H. Veitch, Cratægus coccinea plena, (Paul's Double Scarlet Thorn), Lonicera Maackii, Magnolia Lennéi, Philadelphus grandiflorus, Spiræa Aitchisonii, Lilac, Weigela Abel Carriere and Pyrus floribunda.

ROSE GARDEN.

Moving Roses in September (*B.*).—In moving Rose bushes early in September it will be wise to cut off the foliage and shorten back all growths to about 18 inches. Unripe shoots are best cut back to within 1 inch or 2 inches of their base. It will be well to pinch out points now, as this will hasten the ripening, and, although cut back hard, the basal eyes of these unripened growths will break up all the stronger next year. The bushes should be kept moist immediately they are dug up and their roots be dipped in mud. Roll them in a sack and have them heeled in a trench in a shady spot where the soil can be pressed firmly upon their roots. Bury them fairly deep in the soil. When transplanting in October repeat the dipping in mud, and keep the shoots wet for the time the plants are out of the soil. The climbers you can cut back to about 3 feet. They will be all the better for it another year, although in the case of Dorothy Perkins this variety could be retained much longer if desired, providing the foliage is removed. Slaked lime is very good, and should be evenly scattered over the surface at the rate of 6oz. to 8oz. per square yard.

Rose foliage blighted (*J. C., Dundee*).—The foliage is badly affected with red rust. It is very prevalent in some parts, and probably has been brought into your gardens from the wild Briars in the hedgerows. Try syringing with Woburn Bordeaux Mixture. Another season spray the plants as soon as pruned, and continue throughout the summer at intervals of six or eight days. The Begonia leaf was evidently burnt when under glass, perhaps caused by a flaw in the glass, which acted in a similar way to a lens. Please observe rules when writing for information again.

Rose foliage blighted (*F. S.*).—Your plants have an attack of what is known as "leaf-curl." It is supposed by our best authorities that the rolling of the leaf is caused by the larvæ of a sawfly, and it is rather common, unfortunately. Some authorities assert that the rolling is caused by incisions made by the females when laying the eggs. Spraying with nicotine wash has been found to kill the larvæ, but the best plan is to hand-pick the folded leaves when first seen and destroy them. It would be a good plan to transplant the Roses to a new position, and, if so, take care to wash the roots, as it is supposed the pest is introduced to Rose-beds with the earth on the roots of Briars.

Rose for south wall (*G. M. S.*).—You have a choice of several lovely Roses that would soon cover the space of 6 feet, and they can be selected of a bushy or spreading habit of growth, which would ensure the base of the Jasmine that is now bare being covered effectually. In order that the Roses may flourish, you must see to it that the soil is deeply dug and enriched with manure, otherwise the Jasmine will rob it of its nutriment. An additional item that should be remembered is to well water the Rose from May onwards at least once a week, as Roses against hot walls are very apt to suffer for want of water. Liquid manure should also be given about once a week. Six good kinds from which you could select would be as follows, placed in order of merit: White Maman Cochet, Souvenir de S. A. Prince, Marie van Houtte, Peace, Gustave Regis and Mme. Pernet-Ducher.

THE GREENHOUSE.

Lapagerias not flowering (*J. L.*).—There is no doubt whatever that the reason of your Lapagerias being in such a poor condition is that they are absolutely starved. This is borne out by the fact that they have not been repotted for ten years. Once Lapagerias are allowed to fall into this state they take a long time to revive, even if the roots are in a healthy condition, which may not be the case, as when they form a dense coiled mass around the bottom of the pot decay sometimes sets in and quickly spreads through the thick, fleshy roots. Lapagerias do far better when planted out in a prepared bed in the greenhouse than in pots, and, provided the roots of your plants are in a good state, we should advise you, if possible, to plant them out. The bed should be at least 2 feet in depth, and of this the bottom 6 inches must be made up of drainage material. It may then be filled with a suitable compost, such as two parts good fibrous peat to one part turfy loam, and a liberal sprinkling of rough silver sand, nodules of charcoal and soft broken bricks. Such compost, even if pressed down firmly, will allow the water to pass away freely, for though a liberal amount of water at the roots is very essential to the welfare of the Lapageria, stagnant moisture is most injurious. If no opportunity exists for planting them out, your Lapagerias must be repotted. It would have been better had this been done in the spring, but it may be safely carried out now. We should on no account advise you to cut all the shoots down to the pot, though, if they are very numerous, the oldest and those most devoid of foliage may be treated in this way. Then turn the plants out of their pots, and if the roots are in a clean, healthy state they will be closely coiled round the bottom of the ball of earth. Owing to their manner of rooting they need deeper pots than most plants, from which circumstance Lapagerias when confined in this way are often grown in tubs, as a greater depth of soil can then be obtained. On turning the

plants out of the pots, should you find the roots in a bad state, every decayed portion must be cut clean away with a sharp knife before they are repotted. The size of the pot will depend upon the condition of the roots, as if they are much decayed a comparatively small pot will be needed, as in this way healthy root action is more readily stimulated than when there is a large mass of soil around the roots. Poorly rooted plants are benefited by an extra amount of sand in the potting compost. In this case, when the pots are well furnished with new roots the plants should be shifted into larger ones.

Violets in frames (*Kennedy*).—Only in instances where the ground itself was badly drained or likely to become very wet or even flooded should we consider it necessary or even a good plan to place a first layer of faggots on the ground. The idea may be of service in such cases, or even experimentally, though it must always be remembered that the soil is the natural receptacle of such things, and any such aeration as you suggest might prove detrimental, provided it was not fully compensated for by the mass of material above.

FRUIT GARDEN.

Apple and Pear trees not bearing fruit (*Apple*).—It is disappointing and unsatisfactory that your Apple and Pear trees do not bear fruit at the age to which they have attained (from seven to twelve years). You say that the trees grow vigorously and send out long branches, which are carefully pruned each year. This shows that your trees are not what you term "sap-bound." On the contrary, we should be inclined to say that it is a little too free. You say the trees were root-pruned two years ago. The operation could not have been effectively carried out. We advise you to lift them bodily out of the ground early in November, cutting back all the strong roots to within 2½ feet of the stem of the tree, making the cut at the end of the roots slantwise, the cut part facing upwards, so that the young roots emitted from this part will grow upwards. Replant the trees as soon as possible, adding a little new turfy loam to the end of each cut root and making the soil as firm as possible as planting proceeds. We shall be surprised if you do not get good crops the second year afterwards and a good supply subsequently. The cutting of the bark (called "ringing") we have no faith in. It is an old, obsolete fallacy. If you care to try it, now is a good time to do so.

Blue-bottle flies destroying Grapes (*G. Harcourt*).—It is difficult, if not impossible, to kill these flies by using any fumigating compound, or by the application of any carbolic washes or other insecticides. The following recipe is said to be successful in ridding a house of them: Half a teaspoonful of black pepper in powder, one teaspoonful of brown sugar and one tablespoonful of cream: mix well together and place on plates in various parts of the vinery near the Grapes which are being attacked.

Morello Cherries dropping their fruit (*W. Ashworth*).—We have little doubt that the cause of your Morello Cherry trees casting their fruit is to be found in the fact that they are planted, as you say, in cold clay soil. Lift in the autumn and replant in good loam, digging out some of the clay, and provide drainage by adding old mortar rubble, broken bricks, &c. Plant the roots almost level with the surface and mound the soil over them, also apply a good mulch of manure in summer, and we do not think you will be further troubled with fruit-dropping.

Cherries attacked by pest (*S. Reid*).—The Cherries are attacked by the Cherry black fly (Myzus cerasi). They should have been sprayed before the fly got on the leaves, as they are so much more easily reached then, but some good may be done by spraying now either with Quassia and soft soap, or Tobacco and soft soap, or with one of the nicotine preparations sold for the purpose. It would also be well to spray again at the end of September with the same thing, or with fairly strong paraffin emulsion. Alkali washes are of no use for killing eggs unless they are used just before the buds burst.

Ants on Peach tree and Strawberry bed (*Kennedy*).—One of the most effective ways is to find their nests (which you may easily do by watching them returning home in the evening) and to pour boiling water into them, thus killing every ant it comes in contact with. Another way is to place bones, cooked or uncooked, having a little meat on, near their haunts and examine them two or three times a day, when they will be found covered with ants. The best way of killing is to dip the bones in boiling water. The bones should be changed every three or four days. Another way is to spread some nicotine fumigating compound thinly over pieces of slate or glass and place on the ground about their haunts. This has been known to clear away the pests in a short time. It may be obtained from firms of sundriesmen advertising in our columns, as well as special preparations for the same purpose.

MISCELLANEOUS.

Diseased Dahlias (*J. F.*).—The plants should be examined at night and the pests captured. There are some aphides, which may be overcome by spraying with paraffin emulsion.

Canvas grass-box for 18-inch Pennsylvania mowing-machine (*An Old Reader*).—The makers of the lawn-mower to which you refer are Messrs. Lloyd Lawrence and Co., Worship Street, London, E.C. No doubt they will be able to supply what you require.

Joss Lilies failing to flower (*Tom Pinch*).—We are not sure whether your reference to "strong shoots of green" means foliage only or this and flowering stems without flowers. If the latter, the failure is due probably to blindness, due in part, no doubt, to the late purchase and starting into growth, and which should have been done quite six weeks earlier. If the bulbs have thrown up no flowering spike at all, they were of an inferior, *i.e.*, undersized, character and did not contain the flower germ within them. In such cases as these success is only assured by the early purchasing of the finest bulbs, as the treatment followed being quite foreign to the natural requirements of the bulbs, everything depends on good quality in the latter and an early start. The bulbs are now useless; throw them away. Another season start them early in October or before, and give them two months in a cool cellar or something akin.

Names of fruit.—*Dudwell.*—1, Not recognised; 2, Crown Bob; 3, Warrington; 4, Keepsake; 5, Whitesmith; 6, Lancer.——*K. H.*—Pear Hessle.

Names of plants.—*Miss S.*—1, Anemone pennsylvanica; 2, Viburnum Opulus; 3, Syringa Emodii.——*S. Reeves.*—Rose Mme. Ravary probably, but we should like to see more of its growths.——*M. A.*—1, Begonia Vesuvius; 2, Œnothera taraxacifolia; 3, Veronica salicifolia var.; 4, Spiræa discolor; 5, Campanula alliariæfolia; 6, Pentstemon heterophyllus; 7, Cornus alba.——*A Garden-Lover.*—1, Rubus odoratus; 2, Clematis integrifolia; 3, Saponaria (Soapwort) officinalis; 4, Campanula lactiflora; 5, Senecio tanguticus; 6, Campanula rapunculoides; 7, Boltonia asteroides; 8, Clematis Hendersonii; 9, Sidalcea malvæflora; 10, Physostegia virginiana; 11, Stachys Betonica; 12, not found; 13, Coronilla varia; 14, Silene Armeria.——*Dum Kerl.*—1, Deutzia crenata flore-pleno; 2, Neillia (Spiræa) opulifolia; 3, Cornus species, probably Cornus alba.——*Thanks.*—Lychnis coronaria.——*A. D. G.*—Common Juniper (Juniperus communis).——*E. E. E., Bucks.*—Ligustrum lucidum (Chinese Privet) and Spiræa Aruncus.——*R. B.*—1, Crassula lycopodiodes: 2, Sedum spurium; 3, S. Anacampseros.——*L. B. W.*—1, Acæna inermis; 2, Achillea argentea; 3, Phuopsis stylosa.——*W. L. F.*—1, Sedum spurium; 2, S. album.

LEGAL POINT.

Gardener's notice (*H. P. K.*).—Unless expressly engaged "by the week" or subject to some definite condition as regards length of notice, it seems clearly settled that a domestic servant's hiring is one for the year, but determinable by a month's notice or by payment of a month's wages in lieu of notice. A head-gardener has, in two or three decided cases, been held to be a domestic servant within the meaning of this rule, and apparently the fact that his wages have been paid weekly, monthly or otherwise does not affect the question.

SOCIETIES.

KIRKCUDBRIGHT.

THE annual show was held in the Town Hall, Kirkcudbright, on Friday, August 5. As a whole it may be pronounced as quite equal to those of recent years, and the exhibits were generally of much excellence, although some of the outdoor flowers had suffered from the untoward weather of the previous few days. Pot plants were well shown by both gardeners and amateurs; cut flowers were fine, subject to the effects of the weather already referred to; vegetables were of very high quality; and fruit was a strong class, the district being an excellent one for high-class fruit.

In the open division for pot plants Mr. James Duff, gardener to Colonel Gordon, Threave, led for the table with one of tasteful arrangement and composed of good plants; Mr. J. M'Guffog, gardener to the Countess of Selkirk, Balmae, was second with a good table. Mr. W. Brown, Millburn Street, Kirkcudbright, was first for stove and greenhouse plants in bloom, and also for table plants and Fuchsias; and other winners were Mr. James S... Barwhinnock, Mr. M'Guffog and Mr. Duff. In cut flo... Roses and Sweet Peas were strong classes, especially latter. Mr. J. Wallace, gardener to Miss Blackb... Park House, led for hybrid Roses, and Mr. J. Duff Sweet Peas in this section. For the special prize for S... Peas, given by Messrs. Service and Sons, Dumfries, J. Scott, Barwhinnock, was first. Mr. M'Guffog, W. M'Cormack, Mr. R. Webster, Mr. W. Brown, W. W. Morrison and Mr. D. Kelly were the leading win... in the other cut-flower classes. In the fruit section B. Rutherford, Glenlair, was first for Black Hambu... Mr. J. Duff winning for white and other black Gr... and for best bloom. The other fruit prizes gener... fell to Mr. Duff, Mr. Rutherford, Mr. W. M'Guffog an... lady, Mrs. Gibson, Moatwell.

For the vegetables, which were a splendid class for ... season, the amateurs showed well against the garden... and in many cases were successful. Mr. W. Bro... Millburn Street, had the best collection of vegetab... Mr. M'Guffog being second. Mr. J. Hannah led with ... Potato collections; and other leading winners ... vegetables were Mr. W. Brown, Mr. R. Middleton, Mr... Hannah, Mr. B. Rutherford, Mr. J. Duff and Mr. M'Guf...

The amateurs competed largely in their confined clas... and the quality of their exhibits was generally high. ... pot plants Messrs. R. Hiddleston, W. M'Cormack, Halliday and M. Colman were the winners. In cut flow... Miss Nicholson, Mr. Morrison, Mr. M'Cormack, Mr. Webster and Mr. D. Kelly were the principal winn... Mr. R. Middleton, Mr. J. Gourlay and Mr. J. Han... were the chief winners with vegetables.

LEICESTER FLOWER SHOW AND GALA.

THE above show was held in the beautiful Abbey Pa... Leicester, on Tuesday after Bank Holiday, August ... It goes without saying that it proved, as always, a gr... success in every way. We have attended this show ... upwards of twenty years without a break, and h... marked its gradual but sure growth from a very mod... beginning to its present proud position of one of the m... important horticultural exhibitions in the Midlands...

As is well known, its management is under the con... and direction of the Town Council, and its success, fin... cially and otherwise, is, no doubt, due to the able and car... management of the parks committee and to the trus... superintendent of the public parks, Mr. Burton. Dur... many years the surplus, after deducting the cost of ... show, has proved more than sufficient to defray the c... of the bands of music playing in all the public parks ... Leicester during the summer. Leicester has thus given ... lead in showing that flower shows are not the least ef... tive agents for good among the populations of large ci... and towns (as they are also in country places), whet... considered as sources of delight, recreation and educa... on the days of the show or of the influence for good wh... such societies exercise on the community at large ... fostering among them the love of flowers and an ... door life. Among all the effective agencies for promot... temperance we believe most sincerely and firmly that ... have not one among us so powerful as gardening, o... it has taken hold on a man or woman's life. Who ... ever seen or heard of a workman possessing a beauti... garden, the labour of his own hands and heart, who ... drunkard or a ne'er-do-weel? We venture to say nev...

The chief centre of attraction at all our large shows ... these days are the great groups of plants arranged ... effect and the decorated tables of fruit. In both ca... they were splendidly represented at Leicester, Mr. Cyp... taking the first prize in groups for one of his best effo... second prize falling to Mr. Holmes of Chesterfield, a... third to Mr. H. Rogers of Leicester. The table deco... tions formed an ideal exhibition in themselves and w... the centre of great interest, Mr. C. F. Oliver, Leicest... taking first prize, Mr. S. Sims, Borrowash, being seco... and Mr. F. Brown, Stoney Stanton, third. Roses a... were strongly to the fore, although in the open clas... the competition was not so keen as usual through ... absence of many of our best growers from one ca... or another. But local growers were well represented ... perhaps stronger than ever before. In the first-pr... collection of Mr. G. Speight of Market Harborough ... noted some very fine blooms of Lady Ashtown and Hon... Vernet, and Mr. W. Upton's specimens of Gustave Pigane... and Königin Carola were very fine.

Carnations and Picotees were well represented, b... they (as did the Roses) exhibited traces of the effect ... the recent bad weather we have passed through.

The classes for fruit were well filled, especially the ... corated collections of nine dishes. It is seldom that th... such excellent tables were set up as the first, seco... and third prize ones, and the judges must have had ... unenviable task to award the prizes. The first pr... went to Mr. Parker, gardener to J. Drakes, Esq., Mark... Rasen, the other successful exhibitors in this class bei... Mr. Goodacre of Elvaston Castle and Mr. Ireland of Ne... stead Abbey. In the Grape classes some excellent fr... was shown, Mr. Goodacre being well to the fore. T... classes for vegetables were perhaps better filled than usu... the cool, moist weather of the summer favouring th... freedom of growth. One of the chief prize-winners h... was Mr. John Hudson of Grimson Road, Leicester.

The honorary exhibits were numerous, and many ... them of high merit, especially the two magnificent coll... tions of Roses. Messrs. Harrison of Leicester exhibit... two interesting groups, one of well-cultivated specim... vegetables and another of a delightful selection of Swe... Peas and other flowers. Very tastefully arranged amo... his Sweet Peas was an excellent stand of the new varie... Stirling Stent. It is, we think, the finest of all the salmo... coloured ones, the flowers being larger and stand the s... better than any other variety of this shade of colour.

THE GARDEN.

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CONTENTS.

THE SHREWSBURY HORTICULTURAL EXHIBITION 421

NOTES OF THE WEEK
Forthcoming events 422
Edinburgh Working Men's Flower Show 422

CORRESPONDENCE
A criticism of Sweet Peas 422
Ceanothus divaricatus 423
The season 423

GARDENING OF THE WEEK
For the South and South Midlands .. 423
For the North and North Midlands .. 423

KITCHEN GARDEN
Yellow-fleshed Turnips for use in winter 424
A fine crop of Cucumbers 424

FLOWER GARDEN
Sweet Pea chat .. 424
Daffodil notes .. 425

ROSE GARDEN
New Roses of the year 426

FRUIT GARDEN
Some new fruits . 426
Peaches and Bananas 427

COLOURED PLATE
Single-flowered Dahlias 427

GARDENING FOR BEGINNERS
Garden work week by week 428
Methods of increasing the Pansies .. 428
Vines 429
Onions 429
Spring Cabbages .. 429

THE TOWN GARDEN .. 429

New plants 430

ANSWERS TO CORRESPONDENTS
Flower garden .. 430
Rose garden 431
Greenhouse 431
Fruit garden 432
Kitchen garden .. 432
Miscellaneous 432

ILLUSTRATIONS.

Cucumbers in an allotment-holder's garden 424
Ceanothus divaricatus 425
The claret-coloured or red Banana 426
Home-grown Peaches packed for market 427
Single-flowered Dahlias .. .. Coloured plate
How to increase the Pansies 428, 429

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE SHREWSBURY HORTICULTURAL EXHIBITION.

THE annual show of the Shropshire Horticultural Society, which was held, as usual, in the romantic and beautiful Quarry grounds (and we have never seen the Quarry looking more bright and beautiful in itself than it was on Wednesday, the opening day of the show) on August 17 proved again an unqualified success in every way, the huge crowds which it attracted being as large as ever, and the exhibits even more numerous and of the highest excellence in nearly all the classes. The committee of management, by reason of the triumphant success which has attended their labours during the past thirty-six years in building up this wonderful exhibition, command the hearty and sincere congratulations of all who have the interest of horticulture at heart. To the hon. secretaries, Messrs. Adnitt and Naunton, are specially due unstinted praise for the strenuous and single-minded services they have rendered to the society for so long. The society is now in the full strength, as it were, of its early manhood, but these gentlemen are getting old in its service. Let us hope, however, that they may long be spared to watch over its interest and to still further help to extend its influence in the promotion of that art and craft which is the best in the world and which we all love so well.

I have often been asked by those who have never seen this show what there is to be seen at the Shrewsbury meeting more than can be seen at any other important county show, which compels so many thousands of faces to turn towards that old and interesting town on the banks of the Severn year after year. Possibly no two persons asked would give exactly the same answer. I have visited this exhibition annually for as long as most gardeners, and it may interest some readers of THE GARDEN to have my reply to that question. Are you interested in the choicest exotic plants and flowers? Can you appreciate evidence of the highest possible culture in relation to the growth of such plants? Does the harmonious blending of colours and shades of colours in the arrangement and grouping of such plants appeal to you? Stand, then, for a moment over the first-prize group of plants arranged in this way. This group covers an area of 250 square feet, and the plants range in height from a few inches to those towering to upwards of 20 feet or more. They consist of the rarest and best-known specimens suitable for this work collected in most parts of the world. They include stately Palms, Bamboos and other foliage plants noted for their beauty of outline or colour, the choicest Orchids, and an infinite variety of other rare and beautiful plants in bloom, as well as forms and masses which add a cool, refreshing beauty of their own, the whole arranged with such artistic skill and judgment as to compel the highest admiration. If one of these creations is thus so beautiful and pleasant to look upon, what must the effect be of a huge tent of amphitheatre proportions which is full of them, no two being alike and all as near perfection as can be?

One of the most refreshing characteristics of the Shrewsbury Show is the fact that scarcely any year is allowed to pass by without some new feature of interest being added. This year the innovation has taken the form of a display of exotic hardy plants and cut flowers to occupy a space of 250 square feet, the test of efficiency to be chiefly in artistic arrangement and the harmonious and correct blending of colours, the prizes offered being £20 and a large gold medal, £15, £12 and £10. The opinion was generally expressed that, although the four groups exhibited were beautiful and attractive, they did not give the correct expression of the idea the promoters had in view, most of them being too much like the other groups abovementioned. The next objects of absorbing interest to most people, if one may judge by the crushing of the crowds trying to have a glimpse of them, were the champion decorated tables of fruit. These, to my mind, are the most interesting and beautiful objects to be seen in the whole show. The tables measure 10 feet 6 inches long by 4 feet 6 inches wide, the conditions being that thirty dishes of ripe fruit must be provided, ten of the dishes to be distinct kinds of fruit (not varieties). Imagine for a moment that you are looking over a series of six such tables, all loaded with the best and choicest exotic and hardy fruit that the best gardeners of Britain can produce (and it is safe to say the world can produce no better), and imagine further that the same tables are charmingly decorated with the daintiest and most beautiful flowers grown, and surely you have a picture of surpassing beauty and interest.

Those whose fancies are more intent on the utilitarian part of the garden have the opportunity of seeing what it is perhaps no exaggeration to say one of the finest and most extensive exhibitions of vegetables in the aggregate ever seen before. There was one large tent full in the open and amateur classes, and close by the side of this tent was another, almost as large, devoted to cottagers' interests. Here the vegetables were also simply splendid, testifying to the fact that this society is doing an immense amount of good to the town and country by the encouragement it gives by this show to the cottage and allotment gardener.

These notes would be incomplete without a word of praise of the honorary or non-competitive exhibits shown by nurserymen, seed merchants and others. It is impossible to over-estimate the value and importance of these exhibits, many of them of superb excellence as regards the quality of the materials composing them, and also as regards the beautiful effect they produce in the show. We are very pleased to know that the management have returned to the more generous treatment of former years, which unfortunately, for some reason or other, was permitted to lapse last year. This element is so strong at the London exhibitions that its withdrawal would practically put an end to the greater part of good work. From the foregoing remarks it will be seen that there are concentrated together at this exhibition the best of everything that the best of English gardens can produce. These exquisite exhibits are seen during the two days the show is open by nearly 100,000 people. Surely it is not too much to hope that many of this vast concourse (most of whom are young), in addition to the momentary enjoyment derived from seeing the show, will be permanently attracted to the pursuit of gardening during the leisure time of their lives. T.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 30.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m.; Lecture at 3 p.m. on "The Effect of Overhead Electrical Discharges on Plant Growth," by Mr. J. H. Priestley, B.Sc.

The Countess of Selkirk and cottage gardening.—For a considerable number of years the Countess of Selkirk has done much to encourage the improvement of the cottage gardens on the Isle Estate, Kirkcudbright, not only during the life of her late husband, the Earl of Selkirk, but since her removal to Balmae. Lady Selkirk has offered prizes annually for the best-kept gardens, and by a judicious arrangement the estates have been divided into three districts, these differing considerably in their character and in their conditions for gardening. Special attention has also been paid to climbing plants, her Ladyship favouring these greatly, and, as the result, many good climbers and other plants are cultivated and a vast improvement has been effected in the gardens as a whole. The report made by the judges—Mr. R. Service (of Messrs. James Service and Sons, Dumfries) and Mr. R. Colman—has just been issued. From it we learn that this season the gardens visited have shown a decided improvement, and that Lady Selkirk's kindness has been followed by good results. The awards are as follows: Division I. (Gardens within two miles of Kirkcudbright.)—First, Mrs. Dorrance, Mutehill; second, Mr. Tait, Mutehill; third, Mrs. M'Coul, The Stell; fourth, Mrs. Douglas, The Stell; fifth, Mr. Graham, Auchenflower; highly commended, Mrs. Anderson, Auchenflower. Division II. (Beyond two miles.)—First, Miss Dickson, The Doon; second, Mrs. Kelly, Burnfoot; third, Mrs. Thomson, Cooper's Croft; highly commended, Mrs. Jamieson, Mill o' Senwick. Division III. (Home district.)—First, Mrs. Little, Howwell; second, Mr. Hannah, Howwell; third, Mrs. Ross, Howwell; fourth, Mrs. M'Kie, Little Balmae.

Edinburgh Working Men's Flower Show.—This show was held in the Corn Exchange, Edinburgh, on August 13, and proved in every way as successful as in any of the many years it has been in existence. There were upwards of 1,000 entries, and the quality showed high skill on the part of a great number of the exhibitors. The window-boxes made a great display, and showed how much may be done by those with a real love for flowers in combating the effects of town life on plants. The show was opened by Bailie Smith-Elliot, who commended the objects of the exhibition, and he remarked favourably upon the support given by the School Board to the juvenile section and the improvement there shown. He also spoke of the continued support of the Town Council and the benefits effected by the Parks Committtee in giving plants to intending exhibitors to cultivate. Mr. M'Hattie, the City Gardener, also gives a prize and takes a hearty interest in this show.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A criticism of Sweet Peas.—I do not agree with "Statice" as to the "Sweet Pea nonsense" in your "Correspondence" of THE GARDEN, August 13. Far from it being to the detriment of other flowers in general, as he states, I should say it is the reverse. Surely there is plenty of room in THE GARDEN for everything; at least, I find it so. Everything is dealt with in the proper season, and I do not see where he or anyone else has cause to complain. Perhaps "Statice" will let us know what kind of flower he would like to see treated of in place of the Sweet Pea.—OLD READER.

—— I am practically an invalid, but in my tiny garden can do a great deal with a patch of ground so small that it is known as "The Postage Stamp." Everybody has his favourite flower; mine is the Sweet Pea, Delphiniums coming second, Gladioli third. (I am speaking of flowers which interest me most to grow.) I think of Sweet Peas all the year round, and can never read enough about them, and I disagree entirely with "Statice" when he protests that you write too much about them, or, at any rate, publish the enthusiastic letters from crazy amateurs like me. My complaint is that you do not say half as much as I could wish. Being unable to travel about to the various shows, or even to my friends' gardens, my one complaint is that I very often fail to realise the colour of the Sweet Peas that the gardeners as a rule take for granted, and a list of names frequently sets me longing for a colour, properly descriptive, attached to each. I want a really good pale blue with a waved standard. I was given a good one the other day, but hooded, and that I will not allow now. I am going to try Mrs. W. J. Unwin after the exquisite colour print you published and the delightful description I have read of it. I always grow Evelyn Hemus, and find it far more admired than any other, also Helen Lewis for its grand colour and stout growth; but I should like to know if it is really inferior to Edrom Beauty, though both I gather are much alike. I also want a good waved, real purple, not a maroon nor a bicolor, but the sort of colour Mrs. Walter Wright would be if deepened from mauve to purple.—M. NEPEAN, *S. Farnborough.*

—— One wonders why "Statice," who grows 300 pots of Sweet Peas yearly, wrote such a letter. He compares the great improvement in the cultivation and the varieties to the Potato gamble. Where is the comparison? Well, I think "Statice" will find the flower-loving public do not regard it in that way; on the other hand, that they feel a sense of gratitude to the trade, and amateurs as well, who have devoted both money, time and ground in raising Sweet Peas to their present standard of excellence. There is a National Sweet Pea Society. Before they will recognise a new variety it must be sent to their trial grounds. There they inspect it growing, note its constitution and growth, whether it comes true to colour and stands the sun. So it has not alone to pass their judgment on the bench. This society issues a book yearly in which they have a classification of what they consider the best sorts in their various colours, and, besides that, they have another list of the too-much-alike varieties. They are careful not to admit a new variety into the classification until it has proved itself a standard sort. Now, take the flower on its own merits. Look at the range of colour from Etta Dyke, pure white, to Black Knight, deep maroon, and the wealth of shades in the pinks, creams and mauves. What flower lends itself more for vase and decorative work, with the long, wiry stems? The half-developed flowers will open well in water and are lasting. They come into bloom in June and will continue flowering well into October. One can pick daily from them and hardly notice it. What is more charming in the garden than a hedge of Sweet Peas or in groups?—H. S. TARRANT, *Charleston, Queenstown, County Cork.*

—— Your correspondent "Statice" (page 398) is, in my opinion, perfectly right in his remarks concerning the Sweet Pea. It is unquestionably a beautiful flower and has been greatly improved of late, but there are other flowers quite as worthy of attention. There are too many varieties of Sweet Peas. There is, unfortunately, a tendency for a particular plant or class of plants to make a sudden rise in popularity; and although I admit that the attention so focussed does at first lead to the particular plant's improvement, yet I am quite sure that a continuance of the craze is as bad for the plant under attention as it is for the others that are neglected in consequence. Take the Chrysanthemum. We now have too much of it, beautiful as it is in its many forms. There are many beautiful flowering plants elbowed out of the greenhouse during its flowering-time in autumn and early winter, and its summer requirements are such that it takes up the room that might be devoted to other plants that are more ornamental at that time. And not content with the commanding position the Chrysanthemum holds as an autumn flower, growers are extending its flowering season from summer to early spring. As another example take the Rose. There is now a craze for Rambler Roses, which threatens to extend beyond reasonable limits. The Cactus Dahlia is another flower which is, in my opinion, becoming spoiled. The thin, wiry petals of the modern kinds are far inferior to some of the older forms. There is a duty to oppose

false ideals, and as crazes invariably lead to false ideals, these should be, if not opposed, at least kept within reasonable limits. In short, I hope with "Statice" that you will not devote too much of your space to Sweet Peas, or, I may add, any other plant which happens to be the subject of a current craze, but will, as before, make your paper as catholic as possible.—A. D. FORT.

—— In reply to your invitation on the subject of Sweet Peas, I would say that the space devoted to this delightful flower is not enormous, as "Statice" says; and if he can point me to a flower that is more interesting than the Sweet Pea in variation and delicacy of colouring, sweetness of perfume, profuseness of blooming, durability of the cut blooms, ease of culture and, last but not least, cheapness, then I will endorse his protest. Until then tell us all you can about them.—FRANK DOLBY.

Ceanothus divaricatus.—Your readers may be interested in seeing what a highly decorative shrub they would have in Ceanothus divaricatus. It is perfectly hardy and blooms during May and June, the inflorescence being of the most exquisite China blue. If possible, it should be given a south wall. This is against the corner of a greenhouse in the garden of Hardwick House, Bury St. Edmunds.—C. H. F. [See page 425.]

The season.—I have been a subscriber to THE GARDEN from its commencement in 1872, and also a lover and grower of hardy plants for seventy years, but I cannot remember such an abnormal and disastrous season as the present. It seems to me that the only gardens with bright colour this year are those where unlimited glass and heat have been available. My garden here stands high and exposed. I have only two or three frames made up with manure, and the late frosts and cold, sunless days have been so destructive to seeds and plants that scarcely any have survived. The losses of Anchusas, Gypsophilas and many other cherished border perennials which cannot be grown from seeds have been numerous. None of the spring flowers was as abundant as in former years. There was not one bloom on Iris stylosa. A few Alstrœmerias have survived. There are Gaillardias, but no sign of bloom as yet. Of Sweet Peas there are only a very few, sown late. Instead of having flowers to give away, it has been difficult to find enough to cut for house and table decoration. The success of one never-failing plant must be recorded—the dwarf Rhododendron Early Gem. This does better when grown in the border outside than in pots. If cut before the blooms are fully open they last for days in beauty in the house. It may be expensive to buy, but it flourishes in ordinary light soil, and if not too severely cut it makes fresh growth readily. This bloomed in February, before the extreme cold of March and April. The only other successes to record so far have been Princess Alice Stock, sown late, and also Viola Florizel, the best of all Violas. Turning to the Rose garden, climbers and pillars have done better than the dwarf Roses. Some friends are never-failing—Mme. Alfred Carriere, Longworth Rambler, Alister Stella Gray, Lady Gay and Grüss an Teplitz. Crimson Rambler has done well, but is very late, also Carmine Pillar; Gustave Regis has gone off; Gloire de Dijons have done badly; all my W. A. Richardsons, except one young plant, have died. The dwarf Roses have not grown well; they have afforded but few blooms, and many reputed quite hardy have died. I could tell the same tale with regard to the kitchen garden. I am anxious to hear the experiences of others in the South-east of England, and whether any other garden-lovers have suffered as I have. My gardener is intelligent and industrious, and as much disappointed with the failures as I am.—FIRCROFT.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

REHMANNIA ANGULATA.—Where this is growing in the borders, young plants will now be found coming up all round the old ones. These are sucker growths coming up from the surface roots, and may be taken up and potted. If placed in a cold frame and kept fairly close for a time, they will make fine plants either for pot-work or for planting out next season. It is an excellent subject for the borders, as it continues flowering all the summer and autumn.

Anchusa italica.—The Dropmore and Opal varieties of this Borage can hardly be dispensed with, and should be grown in bold masses, when a grand effect will be obtained. If the propagation is attended to now, a good stock of flowering crowns may be had for next season. The fleshy roots should be cut into pieces in exactly the same way as practised for Seakale sets. These pieces or sets may be dibbled into seed-boxes that have been previously filled with soil, putting them in deep enough to allow a slight covering of soil over the tops. They should be placed in a cold frame, where they may remain till a fair amount of growth is made.

Statice latifolia.—The same method of propagation applies to this plant as that advised for Anchusa, only the operation should be delayed till the beginning of October.

Salvia patens.—Cuttings should be taken now and inserted in pots filled with sandy soil. These will be found to root readily if placed in a cold frame and kept close and shaded. They make nice little tubers, which will start into growth in spring more freely than the old roots, and the practice also does away with the necessity of spring propagation.

KITCHEN GARDEN.

Celery.—More soil may be added to the late plantings, affording a thorough watering to the plants before commencing operations.

Endive.—Plant this out on narrow borders where it can be easily covered to protect it from frost. The ground should be made firm and the plants put out in rows 15 inches apart and 12 inches between the plants.

Lettuces.—If frames can be spared, it is an excellent plan to plant one or two with Lettuces now. Those sown with the first sowing of Cabbages ought now to be in good condition for planting. A sowing may be made of All the Year Round, Hammersmith Hardy and Hicks's Hardy to stand the winter outside.

Leeks.—Where large roots are required for exhibition purposes, more soil should be placed round the stems. They ought to be kept well watered with liquid manure during dry weather, or, if much wet prevails, an occasional dressing of artificial manure may be afforded the plants.

Thinning. — Turnips, Carrots and Spinach should be thinned as soon as the seedlings are large enough to handle, keeping the ground between the rows frequently broken up with the hoe.

General Remarks.—Now that the heavy stress of work is getting less, attention may be given to the trimming of the Box edgings and Laurel and Privet hedges. This work usually has to stand aside for that which is more important. All decaying vegetation should be removed and burned, and the garden put in tidy order.

E. C. POOLEY.
(Head-Gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

FREESIA.—Many growers experience considerable difficulty in cultivating this fragrant spring-flowering plant; and yet, if good bulbs are procured, there is nothing to prevent anyone with a cold frame and a greenhouse from flowering it freely. I think that many err in plunging the pots in ashes or other material usually used for the purpose. I have found that far better results are had by merely setting the pots in a cold frame and covering the sash with a double mat. By this method it is easy to discover whenever the bulbs start into growth, and it is in catching them at the proper moment that success lies. When plunged, very often the foliage has grown far too long before the bulbs are brought to the light, with the result that they never afterwards regain that sturdy, strong habit so necessary to the production of fine flowers. When stood on a hard bottom in a frame, it is quite easy to have a peep at them occasionally, and as soon as the points appear through the soil, light can be admitted. As long as frost holds off they are as well in the frame, but should it threaten, remove to an ordinary greenhouse temperature and raise the pots quite close to the glass.

Potting the Bulbs.—If flowers are required early, pot up at once. Use clean, well-crocked 5-inch pots, and allow from eight to ten bulbs to each. The soil should consist of good fibrous loam three parts, sweet leaf-mould two parts, half a part of spent Mushroom-bed manure and one part sand. A little finely ground bones is beneficial, but not really necessary. Make the soil only moderately firm and cover the bulbs with about half an inch of the compost. Water and set in the frame as advised.

Cinerarias.—The bulk of these are now ready for their flowering pots, if, indeed, they have not already got this shift. For all practical purposes a 6-inch pot is large enough for this plant. Should extra large specimens be required, the present shift should be into the 5-inch or 5½-inch size, and these are subsequently given 7-inch and 8-inch pots later in the season. The Cineraria requires a fairly substantial compost if the best results are to be obtained, but it is better to give liquid manure at a later period rather than make the potting soil too rich. Pot firmly and return to the frame. Water only when necessary, as this plant is very apt to rot off at the collar if the soil is kept in a sloppy condition after potting. Keep close for a few days, but afterwards give abundance of air, although always shading well from all bright sunshine.

FLOWER GARDEN.

Propagating Bedding Plants.—It is not always easy to secure good cuttings of Verbenas, so an early start must be made. If inserted in good time and well cared for, shoots that are showing flower-buds can very well be used. Make them in the usual way and nip out the flowering point. Very sandy compost must be used, and well-drained boxes are preferable to pots, I think, as usually they require less watering during winter. Be sure that the cuttings are well firmed, or very few will root. Set in a cold frame and shade carefully. The bedding Petunias are so easily raised from seeds in spring that it is not wise to propagate in the autumn. Still, it sometimes happens that one has a favourite sort that can only be kept true by cuttings, and where a uniform bed is desired this method must be adopted. Treatment similar to that advised above for Verbenas will answer equally well for Petunias.

C. BLAIR.
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THE KITCHEN GARDEN.

YELLOW-FLESHED TURNIPS FOR USE IN WINTER.

AMATEURS often overlook the yellow-fleshed Turnips for use during the winter, yet they are of great value at a season when sweet, small or medium-sized roots are required. When sown so that the roots do not grow coarse, these Turnips will remain solid for a considerable time, and are not readily influenced by frost. This, to the small grower, is of great importance, as often there are not the same facilities for storing as exist in larger gardens. Even when ordinary sowings are relied upon, the yellow forms should not be overlooked for autumn and winter supplies. Often only one or two sowings are made, say, in the spring and summer, with the result that the roots get large, pithy and flavourless, and in the end the Turnip is condemned as a poor, useless vegetable; whereas, by making several small sowings at intervals of a month from February to September, there will be excellent produce and no waste. The earlier or spring and summer supply does not now concern us, as the season is past, but the supply from October to March can very well be dealt with. I have in a very severe winter found the yellow-fleshed roots a great help when other vegetables were scarce; and though some may object to the colour, this will not be very serious, as their good keeping qualities and flavour will rapidly bring them into favour.

In Scotland and the northern parts of the country these Turnips are grown in large quantities, and I will name a few of the best varieties. One which is a great favourite is Dobbie's Golden Ball, a perfect root in every way both as regards size, colour, shape and quality, and a fine amateur's winter variety on account of its good keeping properties. No matter what variety is grown, it is important to have medium or even small roots for keeping. It is an easy matter to draw up soil to the roots, and if this is done they suffer little harm. At the same time, I would in all cases advise sowing so that a goodly portion of roots may be harvested in November. They keep well in a clamp covered so that frost is excluded, or may be stored in sand or fine ashes in a shed where the roots can be got at readily in severe weather.

For autumn and winter supplies I would advise sowing in August and September, the earlier sowing for lifting and storing and the later one for keeping as late as possible. Sown in the South from September 15 to 20 the roots will be large enough, as I find if about the size of a cricket ball they keep well; in the North the last sowing should be made ten days or a fortnight earlier.

Whatever variety is sown, some little attention should be given to the soil and position the roots occupy. If they are to winter in the open, I prefer an open quarter, and to give the plants plenty of room between the rows, so that the soil can be drawn up to the plants readily. Sow thinly and thin early, and in a heavy, wet clay soil it well repays the cultivator to make the soil suitable, as, though the Turnip may be classed as a secondary vegetable, it is worth growing well. I have found it a great gain to place a liberal quantity of burnt refuse, road scrapings or old mortar rubbish in unsuitable land.

I have noted the good qualities of Dobbie's Golden Ball, and a variety of great excellence and of recent introduction is Carter's Golden Rose, a beautiful root, remarkably hardy, of a rich golden colour and excellent quality. A variety that should become a great favourite with amateurs is Sutton's Yellow Perfection, a flatter root than some, but very handsome and a splendid keeper; indeed, as regards flavour I consider this sort superior to the white forms. Sutton's Yellow Six Weeks is a valuable autumn variety and an ideal root for the amateur. The growth is compact and it is a very quick grower, as it matures in a short time. Sutton's Golden Ball is also a good root and excellent for winter. G. WYTHES.

CUCUMBERS IN AN ALLOTMENT-HOLDER'S GARDEN.

A FINE CROP OF CUCUMBERS.

ALLOTMENT-HOLDER'S SUCCESS.

MR. FRANK MUNSON, an allotment-holder of Spalding, Lincolnshire, has grown a fine crop of Cucumbers in a house 50 feet by 10 feet in Havelock Street, Spalding. There were fifty-eight plants, and the cutting of the Cucumbers was commenced just under five weeks after planting. The plants yielded 300 dozens, all being of excellent size and some 2 feet long. The price realised averaged 3s. per dozen (rather more at the beginning), and the whole were sold locally. It was one of the best crops seen in the district this season.

49, *Cross Street, Spalding.* S. JEPSON.

THE FLOWER GARDEN.

SWEET PEA CHAT.

MORE NOVELTIES.—Continuing the notes upon the more conspicuous novelties of the season, it will be well to conclude the references to the honoured varieties of the year by mentioning Cherry Ripe. For a very considerable time, as all those interested in Sweet Peas know perfectly well, we all grew Coccinea, not because it was a specially meritorious flower for exhibition, but simply because it was positively the only one of its colour, which was usually termed cerise, as the easiest description that could be applied and generally understood. It was a bloom of fine form, but the size was below the standard, and, apart from that, threes and fours were principally found in the imaginations of growers who lived in places so remote that it was practically impossible for anyone to make the journey necessary to confirm the story. Now, however, Coccinea will have to bow to fate and make place for one of the several Spencer-formed varieties of the same attractive shade, and the best that it has fallen to my lot to grow or see is Cherry Ripe from Gilbert's. There can be no question that this is a distinct acquisition; and that it will quickly become immensely popular there is little doubt.

It will be remembered that last season the floral committee commended as a variety that should be grown for garden adornment and home cutting Colleen, a bicolor from Mr. William Deal, and it is good to know that the excellent opinion thus decidedly expressed has been fully justified by the flower this year. The plant is a capital grower and most profuse flowerer, and, happily, the colour is distinct from Mrs. Andrew Ireland, to which attention has already been drawn, and to other varieties in the bicolor group. The flowers are on the small size as judged from the exhibition standpoint, but the rose colour of the standard is wonderfully rich and attractive, and there seems every prospect that Colleen will come to be a general favourite among those who still remember that the Sweet Pea has other uses than that of a flower for exhibition.

It is probable that all growers have a more than superficial liking for Mrs. Hardcastle Sykes, but there is a chance that, beautiful as it is, it will have to follow in the footsteps of many others and find its way to almost complete oblivion in face of the merits of Elfrida Pearson. In this newcomer from Pearson's of world-wide fruit fame, not to mention the Zonals that they used to grow and the Daffodils which they cultivate now, we see the same refinement and perfect posing of the blossoms on the stem, with a something more beautiful in the general aspect and, indisputably, an added richness in the colour. One wonders whether it is Mr. Duncan Pearson who is responsible for Elfrida Pearson, as he has been for some handsome Daffodils. If this is so, he adds to his fame as a modern florist.

There was considerable worry last year because George Stark had not maintained the promise of 1907; it had degenerated, and this no normal enthusiast could stand for one moment. Among the individuals who were most troubled in the matter at the critical moment was Mr. Stark himself; but he had full faith in his gem, and promised that all should be well this year. And it is. George Stark is the finest waved scarlet in commerce as far as I am aware, and it is more than likely that it will be some little time before it is entirely superseded. The plant may not have the remarkable vigour of many others, but there is no question as to its floriferousness, and the rich colour of the blossoms will always ensure it a welcome. It has

been suggested that Unwin's Doris Burt would oust George Stark from its position of pre-eminence; but this will never be the case, for the simple reason that the two varieties, both of conspicuous excellence as they are, are totally different in colour, and both are distinct from anything else. Stark's Mrs. Duncan has done well as a handsome waved crimson that does not burn; but it is doubtful if, in view of Dobbie's Sunproof Crimson and Sydenham's Crimson, it will have the chance that it would have had two years or so ago.

Those who desire a peculiar shade must try Mrs. George Charles, from Robert Bolton. One may be excused for calling it a purple blue and at the same time saying that this does not quite meet the case; any way, it is a fine flower and distinct. SPENCER.

DAFFODIL NOTES.

WHAT TO GROW IN POTS FOR FORCING.—If Daffodil flowers are wanted in the first and second weeks of January, the three varieties that should be relied upon are Henry Irving, obvallaris and Golden Spur, which bloom in the order named above. If these are potted as soon as possible after these notes appear, there should be no difficulty in the matter at all, and quite good flowers should be the result. Later on in the month we may have many others, such as princeps, pallidus præcox, Telamonius plenus and a certain number of the smaller-cupped sections. In reference to my having said in a previous article that we wanted some different types to add to our old standard forcing varieties, Mr. E. H. Jenkins, in a note in THE GARDEN of April 2 last, stated that the typical Leedsii can be had in flower in mid-January—where, by the way, will he find this nowadays?—also that "Stella, Cynosure, albicans, Barrii conspicuus, odorus rugulosus and the whole gamut of double incomparabilises may all be had in company with the old standard market forced sorts." Barrii conspicuus must have flowed from his pen without his knowledge, for it is anything but a good forcer, while Stella, Cynosure and the old typical Leedsii are hardly what we should call up-to-date varieties. Hence I say that we do want, if not new types, at least improvements on the old for our January and early February flowering. I know what I should like to see next year, say, on the day of the annual general meeting of the Royal Horticultural Society at Vincent Square—an exhibit from Mr. Walter Ware! Not just a tantalising box or two of superbly grown flowers, but a real big exhibit, such as probably he alone could stage. It would be something to see and worth an excursion train or two. But I am getting off the line. If I cannot with certainty recommend many of the newer Daffodils for early flowering in pots, there are a very considerable number which are all that one could wish for that I can with every confidence advise readers to try if early March is time enough. Among trumpets there are Glory of Leiden, Weardale Perfection, Outpost, Fairy, Mme. de Graaff, Alice Knights and Duke of Bedford. Among the "cups" there are Lucifer, Castile, Seagull, Crown Prince, Southern Star, Incognita, Lady Margaret Boscawen, Waterwitch, Blackwell and White Lady. Among the "eyes," Eyebright, Circlet, Chaucer, Homer and Ben Jonson. If I were to select six from the above, they would be Fairy, Weardale Perfection, Southern Star, Seagull, Blackwell and Eyebright.

WHAT TO DO WITH VERY SANDY AND LIGHT SOIL.—A lady from Bridgend writes to say that she has a very sandy soil with too good drainage, and the consequence is that, although she has grown Daffodils for many years, "the blooms always, or nearly always, lack substance and are spidery." I know the sort of thing very well, for a tiny garden that I rent is just the same. After trying various manures I last autumn gave it all a real good dressing of kainit, and then forked it well in before I set the bulbs. It has had a most satisfactory result. I had better blooms and I have lifted better bulbs this year than I have ever done before. I would strongly advise the lady to try this on her ordinary soil without making a new bed, and I would also advise a less quantity to be used in a made bed of pure loam. Her idea of putting some cow-manure 2½ feet to 3 feet below the surface to conserve moisture seems to me a capital idea, and one that I should try if I had the opportunity of getting good "muck."

DAFFODIL FIRETAIL.—The Editor has sent me a print of the beautiful new Daffodil Firetail It is the same that appears on the outside of Miss F. W. Currey's 1910 Daffodil List. As far as I remember, this is quite a new departure as far as she is concerned. However, it only serves to emphasise her favourable opinion. I always say to myself whenever a new and expensive variety figures in her list that it has got the "Currey mark," which for a flower is about equal to an eighteen carat mark for gold. A photograph or a print then of some special bloom must be equivalent to the twenty-two carat mark on gold or the figure of Britannia on silver. Firetail is one of Mr. Crosfield's finest productions. It has a uniform deep crimson cup, with the colouring a shade darker at the edge and overlapping, broadly oval perianth segments of the palest ivory white. A very fine flower indeed. I notice that Miss Currey also includes the magnificent rich yellow trumpet Michael; the almost ideally perfect Challenger, with its handsome red-rimmed cup; the primrose-toned Jasper, with its large fiery red eye, which somehow only got a fourth prize when it was shown in the single-bloom class at Birmingham last year, and the aggravating thing for me is to think that I was one of the judges!—but then, did not Miss Clinch, which is one of the most perfect little white trumpets in the world, fare much the same two years before?—after all, it is only like a boy getting in the 'Varsity eleven who never got beyond the second at school; the pure white-perianthed Fire Grenade, with its large rich red eye of over an inch in diameter; and the fine, big giant Leedsii Lord Kitchener, a flower of Field-Marshal's rank in its class. Then there is Cygnet, to me one of the most attractive bicolor trumpets—it often, I find, appears in my private note-book as something I particularly liked; also Lord Muncaster, which I saw at Glasnevin this spring, and thought specially good and striking with its massive, finely flanged deep yellow trumpet. Among the other sections there are the giant bicolor Great Warley, "the largest incomparabilis in the world"; Bernardino, the most beautiful—lucky Mr. Worsley, say I, whenever I see it; and Will Scarlett, with its big red slop-basin—truly one of Mr. Engleheart's most wonderful productions, one which for size and brilliance is not outdone even by Seville or Fire Dome, a flower that everyone should possess who values a bit of bright colour in the garden and a highly decorative flower in the house. Here I must stop, not that I have exhausted the catalogue, but I fear I have nearly used up my room. Miss Currey's is a list with very little "rubbish" in it; her artist's eye prevents such things, just as her keen business acumen prompts her to keep her land in the highest state of cultivation and allows no bulbs that are not as hard as bullets (not cricket balls) to leave her store. JOSEPH JACOB.

CEANOTHUS DIVARICATUS. (*See page* 423.)

THE ROSE GARDEN.

NEW ROSES OF THE YEAR.

THERE is surely something magic in the term "new Rose," for not even in bygone days has anything been seen to equal the display witnessed at the recent superb exhibition of the National Rose Society. Here was to be found, even while the judges were adjudicating, a great concourse of Rose-lovers waiting to view the new Roses in the comparatively spacious tent set apart for them. This was not merely just before the tent was opened, but continued until the close, and many individuals went away without having seen the novelties of the year. This is a healthy sign, and raisers may be assured that sterling novelties will find a public to buy them, but they must be good. The general public is now so well versed in Rose-lore that it immediately detects the spurious or the "too-much-alike" Rose. It will not have Roses foisted upon it as new that possess but a few more prickles perhaps or are just a shade different in colour to some existing sort. What the public demands is sterling novelties, such as Edward Mawley, Lady Hillingdon, Rayon d'Or, Lady Pirrie, Juliet, George C. Waud, Molly Sharman Crawford, Lyon Rose and Orleans Rose, and raisers will be wise to maintain the standard of excellence or refrain from sending them out.

It is most gratifying to find Great Britain maintaining the lead in novelty raising, although I would be the last to minimise the splendid achievements of Continental and American raisers, for perhaps three of the most popular Roses of the year, namely, Lyon Rose, Melanie Soupert and Mrs. Theodore Roosevelt, come to us from France and America. I look forward to the time when many amateurs will be bringing their novelties up for the gold medal, and there is no earthly reason why they should not obtain their fair share of this coveted distinction. The way has been paved for them by the raisers of the past, and they have only to utilise the latest productions in order to obtain some good results. If the simple crossing of a Captain Hayward and a Soleil d'Or can produce a Juliet, what must there not be in store for us in the future? The equally sensational and superb Rose Edward Mawley has probably emanated from Melanie Soupert, crossed, maybe, with Etoile de France or Horace Vernet, so that amateurs have no need to do a lot of spade-work as did raisers of the past; but they may, by employing as seed parents the latest productions, reap the benefit of other men's labours. What the Mendelian theories may have in store for us as Rose-raisers is a matter of conjecture; but, personally, I feel sure they will be of untold value the more they are adopted.

There are some eighty Roses that may be termed novelties of the year, all of which deserve a notice; but perhaps it will be best to take the varieties first that have received awards of some kind during the current year, and I will start with those that have received the coveted gold medal of the National Rose Society, which is in reality the blue riband of the Rose world, seeing that it is awarded by twelve of the best Rose judges it is possible to obtain. I must omit Edward Mawley, the Rose of the year, and also Commander Jules Gravereaux, which obtained high honours at the Bagatelle trials in Paris, as both these varieties were described in THE GARDEN for July 30. Four gold medals were awarded at Regent's Park and four at Salisbury. At the former show, in addition to Edward Mawley, the following three were thus honoured:

THE CLARET-COLOURED OR RED BANANA.

Mrs. Joseph Welch, a Hybrid Tea shown by Messrs. S. McGredy and Son. It is an immense flower, larger even than William Shean, with huge petals of a rose pink colour. It is a strong grower and a free bloomer, and although pink, a colour we already have an abundance of, I believe exhibitors will find it a valuable corner bloom.

Lady Hillingdon, a Tea shown by Messrs. Lowe and Shawyer. This lovely Rose will be a grand addition to the orange apricot colours, and has already made for itself a fine reputation by its unique colouring and beautiful long buds. That it is a grand market Rose for forcing no one can deny, and it has been so magnificently exhibited at the early spring shows by its joint introducers, Messrs. Lowe and Shawyer and Messrs. G. Mount and Sons, Limited. All who force Roses will do well to plant out or pot up largely this glorious coloured Rose, which originated from Papa Gontier crossed with Mme. Hoste. I have no idea what the Rose may be like out of doors, but if it grows as well as Papa Gontier does with me on the stiff clay, left almost unpruned like we do our Monthly Roses, it will be one of the most valuable Roses of modern introduction for cutting purposes.

Rayon d'Or, a pernetiana raised by M. Pernet-Ducher. I was already prepared to see this novelty, the raiser having kindly sent me a fine bunch last October, so that its colour did not startle me so much as it did some who had not seen it before. What a colour! Visions of yellow brown, Persian Yellow and Maréchal Niel all flashed through one's mind as one tried to describe its colour, and the delightful splashes of crimson on the outside of the buds add still more to its charms. It will disappoint some people, I know; in fact, one gentleman was quite disappointed, for I fancy, old exhibitor that he is, that he was hoping to find a sort of dwarf-growing Maréchal Niel. Happily, Roses are not raised simply for exhibitors, and all who value the Rose as a bedding plant will receive Rayon d'Or with rapture. What an epoch-making Rose was Soleil d'Or, and how its influence is seen upon many of our present-day novelties! Its raiser used it to produce Rayon d'Or, crossing Melanie Soupert with it. To Melanie Soupert crossed with an unnamed seedling of Soleil d'Or we owe the introduction of the Lyon Rose. Although its raiser does not say so, I fancy I can see some Soleil d'Or in that magnificently coloured variety Mrs. A. R. Waddell, the wife of the gentleman who so successfully put up Rayon d'Or for M. Pernet-Ducher, which doubtless assisted to obtain for him the gold medal.

P.

(To be continued.)

FRUIT GARDEN

SOME NEW FRUITS.

A NOTE FROM CALIFORNIA.

IN reading the many English notices of the Loganberry and noticing the apparent appreciation of that fine fruit, I have felt that you are missing it by not getting acquainted with two other fine berries which have found favour here in California. The most notable I would say is the Mammoth Blackberry. This fine berry originated in the same garden and at the same time as the Loganberry, but is entirely different. The origin of the two may be of interest to your readers.

Judge Logan of Santa Cruz Calif was an enthusiastic fruit-grower, but was not, I take it, a hybridiser or breeder of fruits. On his place was a variety of berries, and growing wild around it was Rubus Ursinus, which we call the wild Blackberry, but which is really a Dewberry. It has a large, long and soft berry, with small seeds and a fine acid

taste. As it grows wild it is a capricious bearer. At times it is simply loaded with fruit, while at other times and, it may be, at near-by places there will not be a berry. Great quantities of these berries are picked for jams and canning, and in many parts of California berry-picking is a regular summer outing, parties of well-to-do people going to where they are wild to combine camping with berry-picking. On Judge Logan's place several seedling berries came and were cared for. One of these was the Loganberry, now of almost world-wide fame. It is supposed to be the progeny of the Californian wild Blackberry and red Raspberry, a supposition only based on the probabilities of the case. No more is known of the exact parentage of the Mammoth Berry, although no doubt exists that the wild berry was one of the parents. The Mammoth Berry has a stout and very thorny vine, which, however, is not strong enough to do without supports. Its rate of growth is immense, and single shoots often 12 feet, and sometimes 20 feet, in length are made in a season. The berries are borne in clusters like Dewberries and are very long, and berries 2½ inches long are not rare. The berry turns from a bright red to deep black, and the seeds are very small and the berry tender. The flavour varies with the climate. In warm places they are so sweet that no sugar is needed, while in cooler sections they have a sharp, piquant flavour. No Californian berry is more highly esteemed, and while a few years ago the Loganberry was more called for in local markets, it is being displaced to a large extent. With us the Loganberry is not long-lived, and the wise grower will plant some vines every year to replace his five or six year old plantations. The Mammoth Berry, on the contrary, holds on well. The best treatment is to cut out all bearing wood as soon as it has fruited, and then to train the strong shoots of the year on large trellises. The crop is very large and reliable. All Pacific Coast nurserymen carry them in stock.

The Phenomenal is of Mr. Burbank's origin, and is a cross between the Cuthbert Raspberry and the Californian wild Blackberry (Dewberry), and is very similar to the Loganberry. It has a meatier fruit, with less acid flavour. Many prefer it. I am not well informed as to its comparative merit as to long life and constant bearing.

During a recent visit to the California Nursery I saw for the first time two of Mr. Burbank's new cross-bred Plums bearing in perfection. They were Gaviota and Santa Rosa, both containing a large percentage of Japanese Plum blood in them. Both are a rich deep purple in colour, flecked with red and of fine form. Gaviota has a yellow flesh; Santa Rosa, partly purple and partly yellow. The flavour is indescribable. Different people who tasted them thought it like Banana, Pineapple, Peach and Plum. I am fond of these odd flavours in Plums, but I imagine that the fruit-eating public would have to acquire a taste. In California few people eat Plums, and comparatively few eat our dried Prunes. It is a case of too much of a good thing. All of the American and European Plums thrive here with so little care and bear so profusely that most Californians have tired of them. Very few are sold on street stands, and probably fewer preserved than of any of our fruits. We grow Plums to ship out fresh, to can and ship, or to dry.

CARL PURDY.

PEACHES AND BANANAS.

THE two boxes of excellent hot-house Peaches which we illustrate are Sea Eagle and Princess of Wales, two types which respond admirably to indoor culture. It is the usual opinion, especially of amateurs, that no hot-house fruit can equal the flavour of an English garden Peach straight from a sun-warmed wall. We do not dispute the statement; but where Nature fails, as she has failed most lamentably during the past two seasons, preferring to water our Peaches rather than warm them, we must render tribute to art which steps in and with the aid of glass saves us from going Peachless away. It would be a very captious critic who could find fault either with the flavour or appearance of the Peaches illustrated.

The Banana has grown enormously in public favour during the past decade; but perhaps comparatively few people realise that in this useful fruit, too, there is considerable variety both in taste and appearance. The bunch we illustrate is of the red or claret tinted variety from the West Indies. It is of the most delicate flavour, and possesses the great virtue of juiciness. Both the Peaches and Bananas we illustrate were exhibited in the establishment of Mr. H. Rides, Covent Garden, to whose courtesy we are indebted for permission to photograph them.

HOME-GROWN PEACHES (SEA EAGLE AND PRINCESS OF WALES) PACKED FOR MARKET.

COLOURED PLATE.

PLATE 1407.

SINGLE-FLOWERED DAHLIAS.

FOR two successive autumns it was my great pleasure to visit Messrs. J. Cheal and Sons' fine nurseries at Crawley, Sussex, and enjoy a close inspection of the myriads of Dahlias there grown, but specially of the beautiful single forms, for these seem to excel all other sections in their rich or quaint colourings, their delightful and wonderfully free-flowering habits and, not less, their brilliant decorative effects. However great may be our admiration for the really wonderfully formed, massive, rotund shows, the curious twisted or contorted petals of the Cactus forms, or the very charming free-flowered yet rather stiff and formal Pompons, all who appreciate natural form and beauty in flowers, as also bright and effective colouring, must admit that it is in the singles—in any case, as grown and seen in Messrs. Cheal's nursery—that we find admiration to be most concentrated. The three varieties repre sented in the coloured plate now given furnish a fair conception of the form, breadth of petal and rich colouring found in single Dahlias, and these are of Messrs. Cheal's raising; but, still, it is only when a collection running into several scores of varieties, each represented by some half-dozen sturdy, bushy plants, is seen all in luxuriant bloom that the wealth of beauty and of colouring seen in these flowers is fully realised. That this firm should so invariably secure the leading prizes for single Dahlias at exhibitions shows that it has a specially fine selection. But some of that success may be due to the fact that the plants are grown in soil which, while deeply worked, is not too highly enriched with manure. Single Dahlias need ample room, but not too highly enriched soil. Under such conditions they bloom profusely and continuously. Being single-flowered and presenting great attractions to insects, fertilisation is very free. For that reason it is wise to go over the plants every day or two and rigidly pick off all seed-pods which may be forming. Where grown less for garden decoration and more for supplying flowers for cutting, then the harder the flowers are cut the better. This is best done very early in the day, the stems being at once placed in water, so that they may become full before being sent to market or be used in any way desired. While self colours dominate, very many have tipped petals, as is the case with Flambeau, or are beautifully flaked and striped. In addition to the three illustrated, very beautiful varieties are Mikado, Princess of Wales, Formosa, Polly Eccles, Snowdrop, Liberty, Rosebank Scarlet, Victoria, William Parrott, Miss Roberts, Columbine and Tommy. It is open to anyone wishing to raise their own plants to obtain a packet of good seed, sow it under glass in March, and so get a stock of seedlings. But if it is purposed to grow flowers for exhibition or to have at once some of the best, then it is far better to purchase a dozen or two named varieties, to grow them well, and thus secure the greatest beauty as well as quality at the outset. Few plants are more easily grown in gardens or give greater floral beauty than do single Dahlias.

A. D.

GARDENING FOR BEGINNERS.

HOW TO INCREASE THE PANSIES.

GARDEN WORK WEEK BY WEEK.

THE FLOWER GARDEN.—In town districts many owners of gardens are tempted to use sweepings from the streets as top-dressings for their lawns. Few would wish to actually put on such material at the present time, but they may begin to collect it for that purpose later on. I have had some considerable experience of the material in question and find that there is much iron in it, and where dressings have been put on, the grass has been badly damaged. In country districts where there is not so much traffic the road-sweepings are beneficial. Bare places on lawns may be dealt with now by sowing grass seeds suitable for the purpose. For making new lawns the seeds should be sown in spring, but autumn-sown seeds prove very successful. With a sharp-toothed iron rake scratch the surface vigorously and then sow the seeds, cover them slightly with sifted soil and roll. Give water, if the soil is very dry, through a fine-rosed watering-can, and in this way induce early growth. Lawns may be greatly improved by giving them such treatment at this season; there is not the least necessity for digging or forking up the ground, but any coarse weeds must be pulled up. All faded Rose blooms must be removed, as they form hiding-places for earwigs and other insect pests. Suckers growing from the stocks should also be taken off and the very long shoots of Roses shortened somewhat; so treated the plants will have a neat, fresh appearance. Continue to feed border Chrysanthemums and other plants now developing their flower-buds, also stake tall shoots and stems before they get blown over, as growth is very rapid at this season.

1.—METHOD OF PRICKING OFF SEEDLING PANSIES. THE SEEDLINGS SHOULD BE ARRANGED IN ROWS ABOUT 2 INCHES APART AND A SIMILAR DISTANCE BETWEEN THE PLANTS IN THE ROWS.

Vegetable Garden.—In well-kept gardens weeds are never allowed to grow to the flowering stage, but sometimes they grow apace, and if the weather comes showery and dull it is scarcely possible to kill them with the aid of the Dutch hoe. Hand-weeding, though tedious work, is the most effective, and all weeds should be taken away and destroyed. Many kinds if left on the ground root into the surface soil a little again, just sufficient to enable them to ripen any seed-pods they may bear, with the result that thousands of seedling weeds appear during the autumn months. It is never wise to allow Rhubarb and Seakale plants to bear flowers. Though it is not possible to prevent ordinarily grown plants producing the flower-stems, the latter must be cut off before the flowers develop. Any specimens that may have been neglected in the past must be dealt with at once; then the crowns will plump up in due course. Some varieties of Potatoes are diseased, and when the tubers are lifted great care should be taken to destroy all haulm in a fire, and before the final storing the tubers must be examined a second time. Plant out Endive and Lettuces, and sow more seeds of winter Spinach.

Fruit Garden.—The present has not been a good season for Vines on outside walls, and although the Grapes will be late in ripening, the crop may be a satisfactory one if the surplus young shoots are cut off in due course, thus keeping the bunches exposed to the sunshine, light and air. Borders near walls generally get much drier than those in the open quarter of the garden, and so watering will be necessary work. While the soil is in a moist condition from rains or applications of clear water, give two good doses of manure-water in one week. The young shoots on Vines growing over pergolas and arches need not be too closely cut back. The present time is a good one for a careful examination of all fruit trees, so as to come to a decision as to how many and what varieties of new ones should be purchased. A list should be made for reference later on.

Greenhouse and Frames.—Winter-flowering Begonias should now be finally repotted. Those plants that are intended for an early autumn display must be judiciously fed; very weak doses of stimulating foods must be given. Those plants growing in frames will be much benefited if they are raised on empty inverted flower-pots and freely ventilated. Specimens taken to the greenhouse should be placed on shelves near the roof-glass. Summer-flowering Begonias that are now past the flowering stage must be kept drier at the roots, the drying-off process being very gradual. Streptocarpuses may be stimulated with manure-water; then the latest-formed flower-buds will develop better. Arum Lilies that are not being repotted must receive a good top-dressing at once.

A. A.

METHODS OF INCREASING THE PANSIES.

Now that the summer is well advanced, the grower of these free-flowering plants naturally looks forward to another season's display. There are several methods by which the Pansies may be increased, and the term "Pansy" is used in its broadest sense, so that it shall include fancy and show Pansies, the Tufted Pansies, sometimes called Violas, and the newer race of plants commonly known as Violettas or Miniature-flowered Tufted Pansies.

Those who are not particular in the colours and markings of the plants they desire to grow may produce a large number of them from seeds with comparative ease, and these will flower profusely in the succeeding spring if the seeds are sown forthwith. Although it is sometimes possible to purchase seed from varieties of a given colour, it is impossible to say to what extent the colour of the flowers may be perpetuated by the resulting seedlings. Those who desire a free display from plants in which the colours are pleasingly diversified could not do better than purchase a packet of seed from a specialist of good repute, and to sow this without delay. The seeds may be sown in the open in a warm border, and the resulting seedlings will soon be through the soil, and they should be pricked off as soon as the third leaf has formed. A better plan, however, is to make a sowing in the cold frame or in a small box placed in the same receptacle. In such conditions germination will quickly take place, and the seedlings will soon be large enough to handle in the way proposed.

In Fig. 1 a number of seedlings that have been raised during the present season and pricked off in a box of convenient size are shown. If more convenient, these same seedlings may be pricked off into the warm border outdoors, or the cold frame may be utilised for the same purpose. When pricking off the seedlings arrange them in rows from 2 inches to 3 inches apart, and observe a distance between the seedlings of about 2 inches. Also, when pricking off successive rows, see that the plants alternate, as in this way the whole of the available soil may be utilised and better results obtained. Long before the time for autumn planting these recently pricked-off seedlings will have attained quite large dimensions, as shown in Fig. 2. On the left is a seedling plant showing remarkable vigour; the many shoots breaking out from the base denote a plant of large size for flowering the succeeding spring. The seedling on the right of the picture, although robust, is of a more tufted character than the other, and with a seedling of this description it is also reasonable to expect good results. At this time, too, the

2.—SEEDLINGS TREATED AS ADVISED IN FIG. 1 SHOULD ULTIMATELY DEVELOP PLANTS SUCH AS THOSE REPRESENTED ABOVE. WHEN IN THIS CONDITION THEY SHOULD BE PLANTED IN THEIR FLOWERING QUARTERS.

3.—THE GROWTH ON THE LEFT IS NOT SUITABLE FOR A CUTTING, BEING COARSE, HOLLOW-STEMMED AND OF LITTLE OR NO VALUE. THE BEST FORM OF CUTTING IS SHOWN ON THE RIGHT, THIS BEING OF RECENT DEVELOPMENT AND ABOUT 3 INCHES IN LENGTH.

stocks of different kinds and varieties may be perpetuated by the aid of cuttings, and this is the more popular method where a number of plants of a given colour are desired. As a rule, at this season the crowns of the old plants are bristling with numerous growths of recent development, and with cuttings made from such shoots it is an easy matter to perpetuate the different varieties.

Many beginners make the mistake in the selection of the growths they choose for making into cuttings. On the left of Fig. 3 a long, coarse, hollow-stemmed growth is shown, with which it is next to impossible to make a good cutting. The good shoot figured on the right of the picture, however, represents an ideal Pansy growth, and with young growths of this character anyone with the least knowledge of propagation should raise plants of the very best kind. These young growths cannot be inserted just as they are detached from the old plants. As a rule, each has to be prepared before it can be planted, and in its preparation it is necessary to remove all the bracts and the lower leaves, and as a finish the stem of the cutting should be cut through immediately below a joint. On the left of Fig. 4 a cutting properly prepared is shown. On the right of Fig. 4 is a type of growth which the beginner will find quite freely in the crowns of the more tufted plants. These pieces vary from 2 inches to 3 inches or 4 inches in length, and may be detached or pulled from the crown of the plant with a few roots adhering, and with young growths of this kind success is assured. Once they become established, after being inserted in the cutting-bed, they go ahead straight away, and in a little while make handsome plants for placing out in the flowering quarters in the late autumn. The cutting-bed at this period may be made up in a warm quarter of the garden, and so long as it is shaded from the hot midday sun and during periods of bright sunshine, and is damped down with light sprays of water both morning and evening, the rooting process will take place in a very little while. The material with which the cutting-bed is made should comprise soil of the character previously advised for seedling purposes. Observe a distance between the cuttings of about 2 inches, and 2 inches to 3 inches should be allowed between the rows. D. B. CRANE.

VINES.

THINNING-OUT SHOOTS.

THE present summer has not been an ideal one as regards suitable weather for Vines, but perhaps we shall have a very nice autumn. If so, the Vines will mature their wood fairly well, and then there will be more prospects of a good crop of Grapes next year, as it is impossible to get high-class fruit from unripe wood. We should, however, do our own share in the work. It is our duty now to see that all surplus young shoots are cut out regularly every week and to admit as much air as possible on fine days, also to have the pipes warm at night when the weather is dull and cold, with free ventilation; then we shall have done our duty. B.

ONIONS.

STORING BULBS FOR EXHIBITION.

LARGE specimens gathered at the end of August or early in September require very careful treatment if they are to be kept in first-class condition for the November shows. There must be no bruising of the skin or outer scales, and each bulb must be lifted by placing the fingers well under the base, and not by pulling, holding the top for the purpose. The bulbs should be ripe, but not left in the ground long enough to cause splitting. If the weather continues to be cold and rainy, alternating with spells of sunshine, much attention to this crop will be necessary in order to obtain a good harvest of the bulbs. I have been very successful in the storing of monster Onions grown specially for exhibition, my plan being to suspend each one from a rafter in a large airy shed or in a stoke-hole. The air was always dry, but not confined, and the bulbs seemed to improve very much after being placed in the positions referred to. The skins dried and glistened beautifully, and when finally prepared for the show table every specimen seemed perfect. Very large Onions are extremely tender, and the slightest pressure on them would cause bruising in a short time. To win prizes the bulbs must be firm, sound, clean and of good shape. SHAMROCK.

SPRING CABBAGES.

WE are all proud to be able to cut firm-hearted Cabbages very early in the spring, and as that time approaches we become anxious and wonder whether we shall be able to cut some before our neighbours or not. So we feed and hoe with the intention to hasten the growth. Of course, this is quite the right thing to do; but I wonder how many inexperienced cultivators ever study the matter in an eager, serious way during the autumn months. There is so much that can be done to hasten forward the crop at this season that I wish to draw attention to the fact now.

When the seeds are sown in the autumn and a nice crop of seedlings appear, some persons are quite content, and so allow them to remain in their seed quarters until the turn of the year or until they have time to plant them out in the early days of winter at the soonest. Can it be expected that plants so treated will turn in with large, firm hearts very early in the spring? We must lose no time, but at once prepare a nice bed and transplant the seedlings in it at 4 inches apart directly they are 3 inches high. Then, if again duly transplanted in good firm soil before severe weather comes, splendid early hearts will be available. SHAMROCK.

THE TOWN GARDEN.

SEASONABLE FLOWERS.—There is now much beauty in the flower garden, and many beautiful subjects are seen on every hand. These include both tender and hardy perennials, as well as annuals and biennials, climbers and the like. The Sweet Pea, a common garden flower easily grown by all, is one of the few subjects which are not rendered commonplace, even though it is seen at every turn. Rather does its ubiquitous character speak volumes for a popularity that is increasing with years, and which is rendering it indispensable in the gardens of all classes and in countries almost as wide as the poles asunder. There is a charm about the Sweet Pea which fascinates and grows, and it is a flower not of days, but of weeks and months. The Dahlias just now, too, are in bloom, and in most cases will require some attention to thinning and tying to avoid breakage. The herbaceous Phloxes are now making a great show; indeed, have been doing this for a month past, and have rarely been seen in finer condition. In a wet season these things rejoice; hence in a dry season their love of moisture should not be wholly disregarded.

HOLLYHOCKS.—The great spires of these as they tower heavenwards are now among the more conspicuous flowers of the garden, bold and imposing in groups and most attractive. Not infrequently the cottager displays his fondness for the race, the more economically inclined, because of the absence of stakes and lack of room elsewhere, planting and tying them to the partition fence of his front garden, and his neighbour doing the same thing for similar reasons, a big show is unconsciously built up. The plant still suffers from the disease, for which there is no cure; hence "What cannot be cured must be endured." The most badly disfigured leaves should be removed and burned.

MONTBRETIAS.—These, too, are giving freely of their graceful, richly coloured sprays of yellow, red and orange, and, being of a light nature and artistic in effect, are admirably fitted for the garden

4.—THE CUTTING ON THE LEFT IS PROPERLY PREPARED AND READY FOR INSERTION. ON THE RIGHT IS DEPICTED A GROWTH WITH A FEW ROOTS ADHERING; SUCH PIECES MAY BE REMOVED FROM THE CROWNS OF OLD PLANTS AT THIS PERIOD IN GOODLY NUMBERS.

or for cutting. Such things as these require no staking of any kind, and so far as I remember it is rarely done. The worst feature of staking is the huddled-up, besom-like bunches too frequently seen as opposed to a system which should at all times aim to preserve the natural bent of the plant. This in different tribes or species is

so greatly varied that no hard-and-fast rule can be laid down concerning it.

CARNATION LAYERING.—It is really time such work as this was completed, and if not already done, no time should now be lost to secure that end. Work of this kind too long deferred has its aftermath in weakly rooted plants or even in non-rooted layers. In both cases loss and disappointment ensue. In those instances where the layering has been done in season and in reason it is important that the ground near be kept scrupulously clean. Nothing that I know more quickly attracts and constitutes a landing-stage for the egg-depositing fly tribe responsible for the maggot which appears a little later on to do its work of destruction in the Carnation plant than the presence of weeds. It is frequently of some assistance in warding off these pests if the plants are occasionally dusted with soot or syringed with soot-water; anything, indeed, not injurious to the plant but calculated to render it distasteful to insect-life is of service at such a time.

LAVENDER.—This welcome old-time favourite is appreciated both in the garden and in the home, and those who find it of value when dried should now gather the spikes for that purpose. Every housewife knows its value in the linen closet, and this, coupled with a fragrance practically unique, should render the plant popular with all classes. A bush of Lavender may be grown in the poorest of garden soils, and very often stretches of the plant adjacent to garden walks fill one with admiration. A reputedly chalk or lime loving plant, it is by no means fastidious as to soils. I have seen it by the acre on the poorest of sandy soils, and knew well years ago the Mitcham area where the plant was so long grown, and which was by no means associated with the chalk or limestone formations. E. H. JENKINS.

NEW PLANTS.

ROYAL HORTICULTURAL SOCIETY.—AUGUST 16.

GLADIOLUS PRIMULINUS.—A rare species of exquisite beauty and charm from the Rain Forest, Victoria Falls, on the Zambesi River, where the plant is popularly known as "The Maid of the Mist." The elegant spikes of flowers are about 3 feet high, the Primula-scented blossoms of a golden yellow colour and distinctly hooded; that is to say, the upper segment is long and of a decidedly arching character. In decoration it would prove a most charming kind. Whether the species is even approximately hardy remains to be seen, or sufficiently so to permit of being planted in the open in an ordinary summer with the best results. It is, in any case, worthy of special care. Exhibited by Messrs. Kelway and Son, Langport, and by Mr. M. Prichard, Christchurch, Hants. Award of merit.

Gladiolus Europa.—An excellent variety in every way, the colour approximating to pure white.

Gladiolus Karl Luz.—This is of dark crimson tone; the flowers are of medium size.

Gladiolus Grafin Degenfeld.—A variety of conspicuous beauty, with much nanceanus blood in its veins. The colour is cream to ivory, the three lower segments being heavily blotched with scarlet. These three varieties came from Mr. W. Pfitzer, Stuttgart, and each received an award of merit.

Oncidium Mantinii Lowii.—A yellow-flowered variety in the main, the lip being of a rich shade of colour, broad and well formed, while the sepals and petals are of paler hue and shaded or overlaid with bronze. From Mr. E. V. Low, Hayward's Heath. Award of merit.

Vanda cærulea Westonbirt variety.—This is the noblest variety of this unique species we have yet seen, the flowers being of enormous size and of an exceptionally intense shade of blue, delicately chequered with white or bluish white. The certificated plant carried a raceme bearing eleven of the magnificent flowers, for which no amount of praise would be too great. This unique example came from Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Gloucester, and well merited the first-class certificate awarded it.

NEW VEGETABLES AND FRUIT.

The following culinary Peas, having been grown and tested at Wisley, came before the committee for the confirmation of their awards:

Exhibition.—From Messrs. James Carter and Co., Holborn.

Magnum Bonum.—From Messrs. Barr and Sons, Covent Garden.

Satisfaction, Windsor Castle and *Yorkshire Hero.* From Messrs. Sutton and Sons, Reading.

Melon Early Favourite.—This, raised by Mr. A. C. Smith, also received an award of merit. No evidence of the fruit, however, remained.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Sweet Peas failing (*Mme. H. C. Van der Lee*).—The Pea haulm may be drying off from various causes, such as root fungus, the attacks of wireworm or other soil pests. The cold nights and continued wet and sunless time have also told heavily against these plants this year, and in a district where the soil is insufficiently drained many sudden failures have occurred. The excessive use of strong manures is also bad for these plants.

Poverty of colour (*S. W. H.*).—In all probability this is brought about by soil poverty to a large extent, despite the fact that you have given it manure. Whether lime is present or absent in sufficient quantity could only be accurately determined by analysis. To some extent colour always suffers in a season of wet and cold like the present, the absence of sun having a marked effect upon this. To some extent also the absence of sun during 1909 would have its effect, the basal buds of the plants, the result of the elaboration of the sap in that year, being deficient in that respect. In any case, both soot and lime possess excellent fertilising properties, and dressings of both, given at widely separated periods and at the rate of a bushel to about three rods of ground, would probably assist matters. In the new borders you are making we advise the free use of good stable manure in conjunction with deep digging or trenching, working in the lime as the work proceeds. The ashes from garden rubbish fires are also of great value. Where the soil is heavy use plenty of road-grit to render the whole more porous.

Daffodil seedlings (*N. G. Hadden*).—After the seedlings have completely died down the soil should be kept quite dry for a month or so. If the soil is sweet and the seedlings not overcrowded, there is no need to disturb them, as not infrequently at this stage the "bulb" is but a fleshy, elongated tuber, which is not benefited by much disturbance. In their second year the seedlings should, if possible, be ripened earlier, shaken out and given fresh soil, replanting them 1 inch deep. Keep the Lilies in the pot for the winter, not allowing the soil to become quite dry, but moderately so, and plant out bodily in a clump in early spring—March or April. A mixture of peat, loam and sand in equal parts would suit them well. We regret your enquiry has been overlooked.

Dividing Water Lilies (*Mrs. Eliot Howard*).—The address you require is Messrs. Jarman and Co., Chard. The best time to divide Water Lilies is February or early March. You may chop them through with a spade, and retain pieces with two or three strong growths. Replant in mud, or on mounds of loamy soil if there is no mud in the pond. Your Iris Kæmpferi has not turned into the common yellow Flag, but this plant has probably increased so rapidly that it has crowded I. Kæmpferi out. You had better remove the common kind or clear a good space, then replant your remaining plants of I. Kæmpferi in good loamy soil.

Dividing the common Irises (*E. M. Carpmael*).—You may divide your Irises any time after the flowers have faded, the sooner the better. When dividing them reject the centre parts and select the stronger shoots from about the margins of the clumps. Your other herbaceous plants may be divided in November. These may be treated in the same way. It is advisable to break the clumps up fairly small, so that they will not become overgrown again quickly. While you have your border clear, advantage should be taken to deeply trench and manure it. You will be repaid for the trouble by finer flowers and better plants next year.

Sweet Peas attacked by insects (*J. T.*).—The Sweet Peas have apparently been attacked by slugs or one of the small moth larvæ which occasionally feed upon these plants. Dusting with soot would check the latter, or the plants may be sprayed with lead arsenate, which would prove fatal to both. The Carrots have been attacked by the Carrot fly. It is too late to do much for the plants this year if those sent are a sample of the crop. Care should be taken in thinning not to disturb the ground too much. A rather light soil prevents the larvæ making their way to the roots. Soil moistened with paraffin may be sprinkled alongside the rows and will prevent the flies from laying their eggs.

Lychnis chalcedonica failing (*Lawrence Jalinator*).—We should imagine from your description that you are simply poisoning the soil with manures, and only the grossest of feeders could possibly endure such repeated dressings as you describe. In the magnesian limestone soils of your own district, and in other parts of the country where heavy or clayey loam overlies the lias formation, we have seen the plant in perfection with only a manurial dressing at planting-time. We can only advise stopping the manure and lifting the plants. In September give the soil a good liming before replanting the bed in March next. Meanwhile let it have a rest. You may, of course, plant the Lychnis elsewhere at once.

Belladonna Lilies (*F. M. S.*).—These are most impatient of disturbance, and usually require several years before becoming sufficiently re-established to flower. The bulbs should be planted 6 inches to 8 inches deep in rich, sandy, well-drained soil to which old mortar refuse has been added. You should give them the hottest position your garden affords, preferably against a greenhouse wall having a south aspect, or, failing this, any other wall where a maximum amount of sun-heat is felt. During leaf-growth the plants should be given copious supplies of water if the weather is dry, and with the maturing of the foliage the plants should be shielded from wet by a spare light. This last is not always necessary, and it will depend upon circumstances, as, *e.g.*, the season and the conditions under which they are growing, whether it should be enforced or not. The plant is only a success in open borders in this country in districts that are favoured and warm.

White Lilac for name and information (*Dorset*).—The name of the shrub you send is Syringa amurensis. It is quite distinct from the common Lilac (Syringa vulgaris), so that it could not have flowered last year as an ordinary white Lilac. It belongs to a section of the genus Syringa, in which the flowers from their short tubes bear a considerable resemblance to those of a Privet, hence the generic name of Ligustrina (Privet-like) has been by some authorities suggested for them. They all flower later in the season than the ordinary Lilac, so that in this respect your plant is behaving in the normal manner. The leaves naturally make their appearance early in the season, when they are somewhat liable to injury from late frosts and cutting winds. This is what has happened in your case, so that there is really no disease, and next season the foliage may perhaps escape altogether. Although your specimen is decidedly less showy than the common Lilac, it is far more interesting, forming as it does a connecting link between the Privets and Lilacs, both of which are members of the same natural order, namely, Oleaceæ.

Phlox and Sweet Peas dying (*J. Brewer*).—The first-named has certainly suffered from one or other of the many soil pests that abound, the bark being cleared right away from the stem at its base, hence the collapse. In all probability the Sweet Peas are suffering from a like cause, though we have but the faded tops evidencing their unhappiness. Lime and soot worked in the surface soil would prove to some extent a deterrent, and in winter or early spring you might try one of the soil fumigants so much now in vogue.

Pæonies not flowering (*Florence Seiver*).—The name of the plant is Campanula glomerata dahurica, one of the Bellflower family, and which is also known by the popular name you submit. We cannot say why the Pæonies have not flowered unless we have before us particulars of the treatment meted out to them. Pæonies require to be established in deep and rich soils to flower well, and may remain so for years if well supplied with water or liquid manure. When planting or replanting is necessary, the work should be done in September or October, the first-named for preference. If you can give any other particulars we might further assist you.

Pompon Dahlias and other questions (*A. B. C.*).—The characteristics of the Pompon Dahlia are best preserved by striking late cuttings each year, allowing them to be grown singly in pots to form what are known as pot roots, and planting these in due course in firm and rather poor soils. In rich and loose soils the florets open more widely, and the symmetry of the flower-head so much beloved of the florist is spoiled. The Montbretias are suffering from a leaf disease peculiar to these and allied plants, and which this year, by reason of wet and cold, has been more frequent than usual. Lift the plants in October, dry them off gradually in any outhouse secure from frost, and replant the best roots in March in freshly prepared soil in a new site.

Water plants in tubs (*Dolphin*).—Are you quite sure that the black slime is from the water and not from the tubs; and did you take the precaution to burn them but before using? which is always a wise precaution. If the scum is really due to the impure condition of the water, a little sulphate of copper—say, an ounce dissolved in three gallons of water—for occasionally spraying the surface of the water should suffice, but the spray must not come in contact with the plants. The introduction of fine gravel, sand, or charcoal all tend to purify, and in some instances—though the effect is not permanent—fresh soot sprinkled on the water's surface and freely stirred will sometimes precipitate the scum. Have you tried skimming the surface of the water or overflowing it occasionally to clear it away?

Lilies and Carnations (*Quiddley*).—The Lilies are quite healthy, though small in size, and one of the bulbs had attempted to throw a spike of flowers, but failed to fully develop the same. One bulb is quite rootless; that is to say, it has been existing on its own resources since being planted. We imagine from the bulbs and their root-fibres that you planted them far too late, August being the best time when the re-rooting begins. As this Lily is at all times impatient of removal, all you can do is to let them alone to become established, when, provided they remain healthy, they will flower quite well. The Secretary of the Perpetual Flowering Carnation Society is Mr. Hayward Mathias, Medstead, Hants, and we believe this is the only society of its kind that gives cultural information to its members. You do not say what information you require, and we may be able to supply your wants in this respect.

ROSE GARDEN.

Rose foliage blighted (*Croom*).—The foliage sent is badly attacked with the fungus known as black spot. It is very much about this year, owing doubtless to the very wet season. We advise you to have all fallen foliage picked up and burned. If the soil is stirred about the plants you should obtain some good autumn bloom, but the loss of foliage owing to the disease considerably checks the plant's vigour. You will do well to replant your Roses in the autumn, if possible, into a fresh plot of land; but if not, then have the surface soil for an inch or so in depth quite removed and either burned or placed at the bottom of the trench when trenching the beds, as the spores of the fungus will lie in this surface soil till the winter. Spray the plants now with Woburn Bordeaux Paste and repeat at intervals of a week. After pruning in spring spray the plants, and continue this at frequent intervals throughout the summer.

Roses for circular beds (*G. C. P.*).—We think the beds should be planted with Roses of a similar shade of colour. We name six varieties of each colour that would blend well together, and if you edged the bed with one of the lovely little Polyantha Roses, we think you would be pleased with the effect. The larger growers would be pegged or tied over to hoops, and it would only be necessary to tie down the growths and remove old wood occasionally. The Polyantha Rose could be kept quite dwarf by cutting down to the ground each spring. *Crimson:* Grüss an Teplitz, Hugh Dickson, J. B. Clark, Bardou Job, Sarah Bernhardt and François Crousse, edged with Perle des Rouges. *White:* Frau Karl Druschki, Mme. A. Carriere, Boule de Neige, La Tosca, Aimée Vibert and Blanc Double de Coubert, edged with Katherina Zeimet. *Pink:* Conrad F. Meyer, Lady Waterlow, Mme. Abel Chatenay, Climbing C. Testout, Laurette Messimy and Climbing La France, edged with Maman Levavasseur. The autumn-sown Sweet Peas may be sown about 1 inch apart, thinning them out later on.

Dorothy Perkins not flowering freely (*A. E. R.*).—There have been several complaints regarding this Rose this season. The rather sparse flowering of certain plants is doubtless owing to the wet summer we had last year. There is rather an erroneous idea abroad that all rambler Roses should have *all* the old wood cut out after flowering. This is to some extent true as regards the Multiflora or Crimson Rambler tribe, but it is not correct as regards the wichuraiana Roses. We would rather in their case, especially after a sunless summer, sacrifice some of the soft, sappy growths rather than the old wood, but by all means spread out the latter as much as possible, and in March cut back all laterals fairly hard, leaving the strongest not over 6 inches long and the weakest 1 inch or 2 inches. Plants treated like this have been, and are now, a mass of bloom with us. We adopted a somewhat novel plan of having a central pole 12 feet high, and another pole slanting from the point of the central one on each side. To these poles the growths were secured after pruning in spring, and they now form magnificent screens, every growth being well away from its neighbour, thus displaying the beautiful long trails of bloom. Other varieties of wichuraiana Roses, such as Réné André, have growths over four years old and as vigorous and healthy as at first. They are all treated on the same plan.

Rambler Roses forced first season after potting up (*T. S.*).—As a rule, rambler Roses are best grown one year outdoors before bringing them into the forcing-house; that is to say, they are potted up in November, plunged outdoors, where they remain until May, when they are replunged at a greater distance apart in lines or beds in an open position. But we may tell you that if you could obtain bushy two year old plants on their own roots of such as Dorothy Perkins and Crimson Rambler and pot them up in October, cutting them back to 1 foot in height at the time of potting, you could, by giving them bottom-heat, have nice, bushy, rather dwarf plants in bloom by Easter, allowing them about fourteen weeks to grow in a moderate heat. If, however, you potted up long-shooted plants and expected them to flower really well the first year, you would be disappointed by the weakly little trusses of bloom they would yield compared to the fine long clusters of established plants. There is, however, a great difference when one is dealing with the dwarf Polyantha Roses, or "Baby" Ramblers as they are sometimes called. To this class belongs the new Rose you mention, Edward VII., named, we believe, by special permission of His late Majesty King Edward VII., and sent out by Messrs. Schultheis Brothers, Steinfurth, near Bad Nauheim, Germany. This Rose is a seedling from Mme. N. Levavasseur, and is a beautiful pink colour. Market-growers pot up thousands of this type of Rose in the autumn and bloom them the following spring, but they do not force them hard. You were quite right about Etoile de France, and we should not think of forcing plants potted up from the ground in November; but, of course, pot-grown plants repotted in autumn could be forced, although in their case it is better to repot in June or July if hard forcing is to be resorted to. If your employer sends you plants of Edward VII., we should advise potting up immediately and plunging outdoors until December; then bring them into the greenhouse, cut back to 4 inches to 6 inches from the top of the pot, and plunge in fibre upon a gentle hot-bed or in a pit where hot-water pipes are beneath. You would then have the plants in bloom about March.

Red rust on Roses (*N. L.*).—The Woburn Bordeaux Paste is used at the rate of about 1½lb. to 10 gallons of water. It mixes readily with water, and contains no gross particles to clog the nozzle of the sprayer. The Woburn Tobacco Extract is used at the rate of 1lb. to 10 gallons of water for general purposes, but for thrip and cuckoo spit use one part to fifty parts of water. For American blight on Apples it should be used at the same strength.

Rose Niphetos under glass (*An Old Subscriber*).—This Rose is much finer than Innocente Pirola for under glass; its buds and blooms are so pure in colour and the habit of growth eminently suitable for forcing purposes. You would find Molly Sharman Crawford also a grand variety for the same purpose; indeed, we believe it to be the very best white Rose for pot culture excepting Frau Karl Druschki, and even superior to this Rose in many respects, its growth being more manageable. 2. You will be wise to avoid the climbing forms of such Roses as Niphetos if your space is somewhat limited. You will obtain far more bloom from the non-climbing form and also a more continuous supply. We, however, would except Climbing Mrs. W. J. Grant. This Rose is really best grown as a pillar Rose under glass. 3. The boxes for Daffodils should be about 4 inches to 5 inches deep. 4. The Lyon Rose is very good under glass.

THE GREENHOUSE.

Diseased Pelargoniums (*Salis*).—The Pelargonium shoots sent have been badly attacked by aphides, which have caused the spots on the stems. They have also what is generally referred to as the Pelargonium disease, an ailment to which highly fed plants, particularly if they are kept in a close atmosphere, are very liable. This disease has increased considerably of recent years. The best way to combat the evil is to vaporise, in order to destroy the aphides, and to give the plants plenty of air. An excessive use of stimulants must be avoided. You give us no idea of the treatment your plants have received. This is very necessary in order to advise as to the necessary remedy.

Keeping frost out of small greenhouse (*Novice*).—We have had no experience of the scheme suggested in your letter, but think it is quite possible to keep the frost out of such a small greenhouse in this way. Of course, the pipes must be so arranged that the water will circulate; that is to say, the flow must mount upwards gradually to the highest part, and for the return drop in a corresponding manner till it enters the fire-box at the lowest. It is very essential that the pipes within the fire-box are stout, and any joints therein must be such as will resist the action of the fire. The greater the surface of pipe exposed to the heat, the quicker, of course, will the water circulate. For this reason you could, perhaps, arrange a small coil to act the part of a boiler. To increase the heating surface it will be possible to run two pipes around your house by using a Y-shaped piece after the pipe has left the fire-box. To ensure success and avoid accidents two very necessary items must be taken into consideration. In the first place an expansion pipe must be fixed at the highest part of the pipes, and also a feed cistern, so as to ensure that the pipes are always filled with water and that no steam collects therein. In a small structure such as yours we have known very satisfactory results to be obtained by using an oil lamp or stove to keep out the frost. If a good class of stove is obtained, kept regularly trimmed and the best oil used, there will be no risk to the plants.

Roll glass for conservatory roof (*Clumba*).—The objection to Hartley's Roll Glass for the roofs of plant-houses is that it obstructs too much of the light. It would not matter at this season of the year, but in winter plants under glass require all the light available. Still, some subjects are less particular in this respect than others, and if the occupants of the conservatory are limited to foliage plants, such as Palms and Ferns, there would be no great objection to the roof being formed of this glass. Soft-wooded plants, such as Pelargoniums, would not do well under it. If used there is no objection to it being in lengths of 3 feet. We do not see how the overlapping can be avoided unless you have an iron or zinc framework into which the ends of the glass may be butted.

Scarborough Lily not flowering (*G. J. R.*).—Vallota purpurea flowers naturally during the late summer and early autumn months, so that there is ample time yet for your plant to throw up its flower-spike. Directly the flower-spike appears the plant should be taken into the greenhouse, keeping it regularly watered. Even if it does not flower this season, it must be wintered in a good light position in the greenhouse and at no time dried off. It may be stood out of doors again during the summer. The Watsonia should have flowered before this, and we are afraid that you will get no bloom this year. It should be treated like the Vallota till the leaves show signs of going to rest, when water must be lessened and finally discontinued altogether. In March shake the bulb clear of the old soil and repot, giving it little water at first, to be increased as the leaves grow. Treated in this way it will probably flower next year. We are extremely pleased to learn that you have been so successful in the culture of Malmaison Carnations by following the advice we gave.

Information about a Lemon plant (*S. J. F.*).—The Lemon is naturally of tree-like habit, therefore your plant will not break out from the lower part of the branches unless severe measures are resorted to. The only thing you can do to ensure a well-furnished plant is to cut the branches back, and encourage the production of young shoots by keeping the plant as warm as possible and syringing it freely. Even then growth will be slow, as the plant has exhausted a good deal of its energies in the production of the strong young shoots referred to in your letter. Though this is the only course available that will lead to the formation of a bushy plant, we should not be inclined to treat your specimen in this way, but rather to allow it to remain as it is, and thus assume its natural habit of a standard. The tops of the growing shoots may be pinched out in order to prevent them running up too tall, and in this way a regular-shaped specimen may be ensured. You will, we think, find this far more satisfactory than cutting back the plant, though, as above indicated, with this treatment it is not likely to push out shoots from the old wood.

Kentias diseased (*S. A., Argentine Republic*).—We have devoted a good deal of attention to your letter and sought the opinion of experts in this particular class of plants. The conditions prevailing in your part of the world are so different to those experienced in England that we are to a considerable extent handicapped in diagnosing the cause of your trouble. When the brightness of your climate is taken into consideration, we do not think that an excess of shading has anything to do with the matter, unless it tends to keep the atmosphere too damp. As the roots are in a very good condition, it shows that the potting compost and the water supplied to them are not to blame. A majority of those consulted concur in the opinion that the temperature at night during the winter is too low for the well-being of the Kentias. Here we do not subject them to a lower temperature than 45° to 50° at night, and should expect a drop to 32° to be attended with serious consequences. The greater the amount of moisture in the atmosphere, the more possibility there would be of the low temperature doing damage. The cold, damp feeling noted in this particular house is certainly against the successful culture of Kentias. You do not seem to have any provision for heating it, otherwise we should advise a gentle heat in the pipes in order to counteract this. There is little doubt, especially when the large amount of atmospheric moisture is taken into consideration, that there is fungus present in the discoloured spots, but whether a cause or an attendant on the decay already setting in it is difficult to decide. One whom we have consulted in the matter suggests that, although the winter temperature is decidedly too low for Kentias, yet the damage to the leaves may, in the first place, be due to insect agency, possibly a kind of scale, which punctures the cuticle of the leaf and then after a time dies. This incision might allow the spores of some kind of fungus to enter and thus set up decay. We advise you to do what you can towards counteracting the excessive moisture by giving more ventilation and lessening the syringing; at the same time, spraying with a solution of potassium sulphide would check the fungus. This is prepared by dissolving 1oz. of potassium sulphide, or liver of sulphur, as it is often called in this country, in a quart of hot water, then adding to it sufficient cold water to make up two and a-half gallons in all. It must be well stirred and the plants carefully sprayed with it, taking care that it does not get on the paint, which it will discolour. Instead of this potassium, permanganate may be successful. This, which is in crystals, should be dissolved in water so that the solution is of a pale rose colour.

Primula obconica leaves diseased (*Bray*).—Although we found a few traces of fungi on the enclosed leaves, we think it is the result of the disease and not the cause of the trouble itself. It puzzles us considerably, yet at the same time we cannot help thinking that some local influence is at the root of the matter. We advise you to remove the plants entirely from the greenhouse and stand them on a bed of ashes in a cold frame, giving them plenty of air; in fact, treating them practically as outdoor plants. Under such conditions the tissues of the leaves will harden, and very probably the disease will be checked. Of course, your Primulas are not given any fire-heat at this season, as if they are this would tend to weaken their constitution and render them a more ready prey to any disease. If you follow our advice, we shall be pleased to hear from you later on, whether successful or not, as such a puzzling case is naturally full of interest to us.

Maidenhair Ferns going wrong (*M. E. L. M.*). It is a difficult matter to state positively the cause of your Maidenhair Ferns going off in the way they have done, but in our opinion the vaporising compound is the cause thereof. A little extra strength may have led to the mischief. You do not say whether any of the other plants in the same structure have suffered in a similar manner, or whether the damage is confined solely to the Maidenhair Ferns. Very few occupants of the greenhouse are as susceptible to injury as these Ferns. It is within the bounds of possibility that the damage was caused by lightning, but in that case one would naturally expect violent signs thereof. Even with our experience we have had Maidenhair Ferns injured by vaporising, when for the sake of some other occupants of the house we have used it as strong as we thought consistent with safety. Vaporising should be done in the evening, and the sun must not be allowed to shine on the plants the next day, that is if they are of a delicate nature.

FRUIT GARDEN.

Currants, Gooseberries and Raspberries to plant (*C. C. Dickniana*).—The best Black Currant is Boskoop Giant. Of the Red Currants, perhaps the most useful for a suburban garden would be the new Dutch Red, a very prolific variety. The bunches are long and the berries a rich deep colour. White Dutch (Grosse Blanche) is among the best of the White Currants. The best Raspberry is Superlative. The following varieties of Gooseberries are good: *Red*, Superb, Whinham's Industry and Warrington; *yellow*, Golden Drop, Golden Gem and Langley Beauty; *green*, Ocean, British Queen and Plunder; *white*, Lancer (Howard's) Whitesmith and Transparent. The best time to plant is the first or second week in November.

Alicante Grapes diseased (*C. A. C.*).—Yours is a bad case of "scald" in the berries, resulting from insufficient ventilation during the time of the formation of seeds. The Hamburgh Grape seldom suffers from the same cause. The only way to obviate a similar attack next year will be to ventilate more freely during stoning-time (seed-forming) both by day and night, the amount of ventilation, of course, depending on the state of the weather; but the vinery should not be entirely closed at any time during this stage of growth. In cold and wet weather a little heat should be applied to the pipes, in order to keep the air fairly warm and to help its better circulation. The stalks of the berries give one the impression that your Vine is also suffering from an attack of red spider.

Pear Duchesse d'Angouleme unsatisfactory (*Genl. Moon*).—When grown and ripened to perfection this is one of the best and handsomest Pears we have. But it is scarcely one season in ten that it can be had in this condition, even when grown against warm walls in the South of England being generally found gritty, coarse and of indifferent flavour. The variety is now eliminated from our best lists. It is not worth planting. When grown under glass its flavour and quality are greatly improved and it attains a much larger size. Should you wish to substitute another variety for it, we think Doyenné du Comice would be the best.

Peach fruits diseased (*T. H. W.*).—The branc of your tree received is in vigorous health and free fro insect pests. The fruits were too decayed when re ceived to make a careful inspection of them. The onl way in which we can account for the fruits suffering so that they must have been scorched by a too hot su shining directly upon them, thus destroying the skins o the fruits and leading to decay.

KITCHEN GARDEN.

Tomatoes cracking (*F. M. D.*).—You fruit is ripe, and is cracking because the atmo sphere of the house is too moist and close and possibly by too much water being given t the plants. Give the plants abundance of ai day and night while the weather is fine, and d not syringe too much. The plants must, of course have water enough to keep them in health; but b on your guard against over-watering while th fruit is in this condition. In bad weather less ai must, of course, be given, but it should be kep dry even then by the application of a little hea in the pipes.

Autumn-sown Onions diseased (*Onion*) From the description you give of the way you Onions are affected we have no doubt that i is the Onion grub which has caused the mischief This grub is the larvæ of an ashy-coloured, ill looking two-winged fly. It lays its eggs in th Onion, and when those eggs are hatched the larva eat their way into the Onion and frequently destroy the whole crop. You should without dela pull up the whole of the diseased ones and bur them, or the pest will be sure to reappear next year The best way to prevent its attack is to give th soil just before sowing the seed a dressing of th following mixture on the surface, working it i with the draw-hoe and rake, at the rate of tw handfuls to the square yard: One peck of lime the same of soot and 2lb. of nitrate of soda (groun very small), mixing the whole well together As soon as the young Onions are perceived abov ground (or before) give them a light dressin of this mixture, repeating the dose every eigh days for a month or five weeks, when danger fro this fly will be over.

Potatoes diseased (*G. H.*).—The Potatoes ar attacked by the disease known as corky scab, caused b the fungus Spongospora scabies. As there is a danger o the spores being carried in the diseased tubers, it would b well not to use any for seed purposes, and to dress the so in which these have been growing with quicklime, so as t destroy the spores and render the soil alkaline, for an ac medium is one in which the fungus would be likely t succeed.

MISCELLANEOUS.

Cob-nut or Pig-nut (*H. B. J.*).—This is ind genous to certain soils, and having seeded down probabl for generations, you may never be able wholly to eradicat it. The tubers are not in a direct line with the growth and therefore cannot be destroyed from the surface. B cutting off all the foliage as it appears, the tubers are con siderably weakened and at times perish outright.

Various questions (*Burton Park, County Cork*).— 1. Spray the trees in winter with the following solution Arsenate of soda, 3½oz.; acetate of lead, 7oz.; commo treacle, 2lb.; water, 10 gallons. This mixture is a deadl poison, and must be kept under lock and key. 2. Ordi nary border Carnations and the Malmaison varieties ar propagated by layers as soon as they have finished flower ing at the end of the summer. When well rooted the are potted off and kept in a cool frame or house durin winter. In spring the Malmaisons are potted into large pots, and the border varieties planted out towards th end of April. Winter-flowering or Tree Carnations ar propagated by cuttings of the young shoots in brisk hea any time from February to July. Those propagated earl should flower the following winter. Too many stakes t a plant should not be used. One neat stake will be suff cient to hold up two or three shoots, tying ther neatly to it with slender matting. We cannot enter int detail regarding the general culture of Carnations in th space allowed to answer a question, but would refer yo to our calendar of operations of seasonable work deal with every week, in which in its turn the Carnation well dealt with. 3. Spinach is usually sold by the hal sieve measure. This should contain three and a-ha imperial gallons. It averages 12½ inches in diameter an 6 inches in depth. The price for this quantity o May 20 was from 1s. 6d. to 2s. The price is governe entirely by the supply and demand. It is dear whe scarce in winter and spring, and cheap in summer whe plentiful.

THE GARDEN.

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CONTENTS.

Some Good Late-flowering Shrubs 433
Notes of the Week
Forthcoming events 434
National Hardy Plant Society .. 434
New trees and shrubs 434
Correspondence
Foxgloves from self-sown seed 435
Ranunculus Lyallii 435
Gardening of the Week
For the South and South Midlands .. 435
For the North and North Midlands .. 435
Kitchen Garden
National Vegetable Society 436
Notes on vegetables 437
A good summer Lettuce 437
Flower Garden
A little-known annual 437
Bearded Irises by the water-side .. 438
The False Starwort 438
Rose Garden
Plan of Rose garden 438
Roses for new beds 438
Rose Mme. Plantier 439
Fruit Garden
Late Melons 439
Late Strawberries .. 439
Gardening for Beginners
Garden work week by week 440
Blanching Leeks and Celery 440
Bulbs in pots 441
The Town Garden .. 441
Greenhouse
Lachenalias and their culture 442
Answers to Correspondents
Flower garden .. 442
Trees and Shrubs .. 443
Rose garden 443
Greenhouse 443
Fruit garden 443
Kitchen garden .. 444
Miscellaneous 444

ILLUSTRATIONS.

Foxgloves from self-sown seed 435
An annual for edging: Leptosiphon hybridus 436
Lettuce Sutton's Favourite 437
The False Starwort (Boltonia asteroides) 438
White and blue Bearded Irises 439
How to blanch Leeks and Celery 440, 441

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

SOME GOOD LATE-FLOWERING SHRUBS.

IN the past more attention has been given to spring and early summer rather than late summer and autumn flowering shrubs, with the result that the former kinds are more conspicuously represented in many gardens than are the latter. This is, no doubt, necessary in some places, more especially in those establishments where the proprietors are in residence during the early months of the year and are absent from July onwards for several months; but in those places where a garden has to be kept as bright and interesting as possible throughout the whole year, more attention might with advantage be given to late-flowering shrubs. To public parks this is specially applicable, for the idea in such places should be to provide as lengthy a period of beauty as possible. It may be urged that herbaceous and summer bedding plants provide a sufficient display during these late summer and early autumn months; but though extremely beautiful and showy in their places, they cannot altogether make up for a lack of flowering shrubs.

At first sight the number of late-flowering shrubs appears to be very limited, but further consideration shows that a large number may be collected together. The late-flowering Spiræas alone give us a splendid contribution, for we have such showy kinds as S. Aitchisonii and S. lindleyana, strong pinnate-leaved bushes which bear terminal panicles, sometimes upwards of 1½ feet in length, of white and cream-coloured flowers respectively. Then not a whit inferior in general worth, though a totally different-looking shrub, is the cream-flowered S. discolor, which may be found anywhere between 8 feet and 15 feet in height. Differing from these again, we find the dwarfer-growing set represented by such species as salicifolia, Douglasii, Menziesii, betulifolia and japonica, together with their numerous varieties, which offer a range of colours from white to pink and deep red. Two specially fine kinds may be mentioned in S. Douglasii superba and S. japonica Anthony Waterer, both red-flowered varieties.

As a distinct change we find the tall-growing Genista ætnensis, or Mount Etna Broom as it is sometimes called, a tall-growing, elegant-habited, yellow-flowered shrub which is at its best during the latter half of July and early August. A closely allied shrub is noticeable in the yellow Spanish Broom (Spartium junceum), which bears its rich golden blossoms with the greatest freedom from the early part of July until September. Its great value is apparent when it is understood that it will flourish and blossom profusely even in the poorest soil. On many a common and hillside throughout the country the combination of Heather (Erica cinerea), French Gorse (Ulex Gallii) and Ling (Calluna vulgaris) is such as to induce us to try and reproduce the picture on a less ambitious scale in our gardens, and when we press into service the numerous fine cultivated varieties of Heather and Ling, together with a few exotic species of Erica and the lovely St. Dabeoc's Heath (Dabœcia polifolia), we are able to produce a wonderful combination of colour, in which red, purple, pink, white and gold all take a part.

An effective Japanese shrub during August and September is Clerodendron trichotomum. This has large, heart-shaped leaves and flat heads of fragrant white flowers with red calyces, the latter being retained to enclose the dark purple fruits after the petals have fallen. Another Clerodendron is also of service, though it is often treated more or less as a herbaceous plant by cutting it to the ground annually. This is C. fœtidum, from China. In addition to having ornamental foliage, the red flowers are in large terminal heads and appear in September. A couple of blue-flowered shrubs are found in Perofskia atriplicifolia and Caryopteris Mastacanthus, while the several hardy Fuchsias, of which F. macrostemma is the type, produce rich red and purple blooms.

Hydrangeas are conspicuous by reason of the large-panicled H. paniculata and its variety grandiflora, H. Hortensia and numerous others. The Privets provide several late-flowering shrubs, notably the evergreen Ligustrum lucidum and L. japonicum and the semi-evergreen L. Quihoui. Hypericums give us a lot of material, for all the species flower late. The following may be singled out as being specially worthy of notice: H. patulum Henryii, H. hookerianum, H. androsæmum, H. calycinum, H. moserianum and H. aureum. Hibiscus syriacus and its numerous varieties make bright patches of colour in sunny places, and many shades are apparent in the flowers, for we find white, purple, red, blue and intermediate shades represented, while some have parti-coloured

blossoms and others double flowers. The large-leaved Aralia spinosa, which may be familiar to some people by the names of Hercules Club or Angelica Tree, is content during summer with the effect produced by its large and handsome leaves; but in September it makes a further effort and produces immense panicles of cream-coloured flowers. Should September prove to be a sunny month, the last fortnight sees the rosy purple flowers of Lespedeza bicolor, which are very conspicuous when at their best, while a month earlier the dwarf Chestnut (Æsculus parviflora) is one of the most conspicuous flowering shrubs. The Strawberry Tree (Arbutus Unedo) blossoms during autumn, as also do the fragrant Clethra alnifolia and C. acuminata. In July the rare and beautiful Stuartias blossom, while about the same time we find the showy white blooms of Eucryphia pinnatifolia. In Southern gardens Veronicas are making a bright display of white, purple, red or pink, while few more beautiful shrubs are present than the evergreen Myrtus Ugnii.

Though those mentioned do not exhaust the list, sufficient plants have been enumerated to show that a goodly set of late-flowering shrubs are available. Flowering trees at this period are less in evidence, and the most useful of all are the various Catalpas, which during August are conspicuous by their immense panicles of bloom. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 7.—Royal Caledonian Horticultural Society's Exhibition, Waverley Market, Edinburgh (two days).

September 8.—National Dahlia Society's Exhibition at the Crystal Palace (two days).

Peaches and Bananas.—The Peaches illustrated in our issue of August 27 were the product of Messrs. Furmer Brothers of Erith, Kent, who are ardent believers in these two varieties for market purposes. The weight of the individual fruits ranged from 10oz. to 13oz.

National Hardy Plant Society. — A meeting of growers and persons interested in hardy plants was held at the George Hotel, Shrewsbury, on the 17th ult., most of the largest exhibitors being present. On the motion of Mr. John Harkness, seconded by Mr. Frank Bouskell, Mr. A. J. Macself took the chair, and opened the meeting by explaining the objects and aims of the society. Mr. John Harkness followed in an able address on the advantages from a trade point of view. Mr. Frank Bouskell followed, dealing chiefly with the amateur's point of view and the wide field open to a society from the scientific side. He mentioned that he had heard from Mr. W. Irving of Kew, who said, "I think, however, that it is quite time such a society was formed in the interests of hardy plants, and I shall have much pleasure in supporting your objects and joining the society when formed." Mr. S. Arnott, Dumfries, had written him to say that he should be glad to render the society what assistance he could. He had been in favour of the formation of such a society for many years, and wished the movement a successful issue. He (the speaker) had received numerous other promises of support; in fact, the replies were very nearly unanimous on the question, After a most interesting discussion, Mr. George Gibson moved, Mr. R. Went (Llandaff) seconded, and it was resolved unanimously: "That a National Hardy Plant Society be formed for the encouragement, the extension and the improvement of hardy plant culture, whether for the garden, for decorative purposes, or for exhibition, and for the improvement of their nomenclature. And that this meeting pledges itself to use every endeavour to promote the same." Mr. Frank Bouskell was appointed secretary; Mr. Macself, chairman of the provisional committee; Mr. J. S. Brunton, treasurer; and Mr. R. T. Went, vice-chairman. The following provisional committee was appointed: Mr. W. Irving, Kew; Mr. S. Arnott, Dumfries; Mr. J. Artindale, Sheffield; Mr. G. Gibson, Bedale; Mr. F. Eames, Frome; Mr. W. E. Clarke, Whitchurch, Cardiff; Mr. G. G. Blackbourn, King's Acre Nurseries; Mr. R. W. Hosier (Messrs. Bakers), Wolverhampton; Mr. G. C. Mudge (Messrs. Barr), Covent Garden; Mr. E. G. Quick, Harrow; Mr. C. E. Osborne, Hereford; Mr. D. Roberts (Messrs. Dicksons), Chester; Mr. N. Walker, Bedale; Mr. I. C. House, Westbury-on-Trim; Mr. W. J. Robertson, Worcester; Mr. A. J. Wommacott (Messrs. Hewitt), Solihull; and Mr. J. Harkness, Bedale. It was decided to hold the next meeting at the Edinburgh Show on September 7. The meeting concluded with a vote of thanks to the chairman and secretary.

The Potato disease.—The Board of Agriculture and Fisheries desire to remind growers of Potatoes that it is their duty under the Destructive Insects and Pests Order of 1910 to report to the Board all outbreaks of wart disease, otherwise known as black scab of Potatoes, Cauliflower disease, fungus, &c., in counties in which no officer has as yet been appointed by the local authority to receive reports. The penalty for neglecting to report disease is £10. The presence of disease should be again reported this year, notwithstanding the fact that it may have existed and been reported last year. A leaflet describing the disease may be obtained on application to the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place. Letters so addressed need not be stamped.

New trees and shrubs.—The "Kew Bulletin," No. 6, contains some most interesting notes on new trees and shrubs by Mr. W. J. Bean, Chinese species being dealt with. Illustrations of a new Larch, Larix Potaninii, and Meliosma veitchiorum growing in their native country are given. The Larch is said to grow 60 feet to 70 feet high, with an erect trunk 2 feet in diameter. Of the Meliosma, Mr. Bean writes: "As a foliage tree this new species, which was discovered for Messrs. Veitch of Chelsea in South Wushan, Western China, and introduced in 1900, promises to equal the finest of the Walnuts, Sumachs and other popular pinnate-leaved trees in cultivation, and it promises a considerable beauty of flower also. There are exceedingly few trees in Europe, but Messrs. Veitch have kindly presented one to Kew. It has been planted between No. 1 (Aroid) house and the main entrance to the gardens. So far as can be judged at present it is quite hardy."

Horticultural Trades' Association's annual meeting. — The gathering which took place in London from August 22 to 25 was one of the most successful and the most numerously attended of the series. Nearly 100 nurserymen and seedsmen from all parts of Great Britain were present, several journeying from Scotland in order to take part in the proceedings. The excursion on the 23rd was to Woking and Wisley. Woking is well known as a centre of the nursery industry, the soil and climate being especially suited to the culture of conifers and other shrubs and trees. Messrs. Jackman and Sons and Mr. Charles Slocock, who kindly entertained the party at lunch and tea, have between them some 500 acres under nursery, and the time was all too short to allow of thorough inspection of the immense stocks of all kinds of shrubs, trees, Roses, &c., contained. Wisley was also much enjoyed, and great interest taken in the trials being carried on. The second day was devoted to pleasure, some ninety members joining in a trip up the Thames, landing at Cliveden for lunch (permission having been kindly given by Mr. Astor), and spending the afternoon amid the glorious scenery there. Some of the more energetic members crossed over to Dropmore and inspected the famous collection of conifers, and felt abundantly rewarded for their walk. The evenings were taken up by the election of officers for the ensuing year and the discussion of matters of trade interest, such as land taxation and valuation, Gooseberry mildew, &c. Mr. Peter Veitch (the head of the Exeter firm) was elected president for the coming year.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Sweet Pea controversy.—It is not difficult to understand "Statice's" recent sharp criticism of what he evidently regards as Sweet Pea booming in the Press. While traders always have advertising columns open to them, which the ordinary reader may look at or not, as he likes, when he turns to his inner pages and seeks for that horticultural matter in which his soul delights and finds some one subject, even though it be Sweet Peas, persistently, perennially and in season or out of season ever helping to fill them, he is apt to become somewhat angry. The fault may be with the Editor, who, kindly of heart, readily grants his Sweet Pea correspondents all possible rope, or it may be due to the protester's utter incapacity to see that the Sweet Pea is the floral fetish of the day, and he is no worshipper at that shrine. Perhaps he is a Rosarian, or a Carnationist, or an Orchidist, or an aquatic or a hardy plant man, or a Fern-lover, or he may be a pomologist, or a Cabbage-grower, or, indeed, so far a cosmopolitan that he is for everything in horticulture, as, indeed, every true lover of the garden should be. Such a man cannot narrow the range of his floral love to any one flower, not even the Rose, much less to the Sweet Pea. Of course, such an one is an omnivorous reader, and likes to see everything that is beautiful in gardens getting its place. Admittedly, Sweet Peas are possibly more than any others the people's flowers, just as the Potato is the people's vegetable; but no Editor would care to place columns weekly at the disposal of the Potato enthusiast, especially if a trade one, important as that vegetable is. After all, the Editor, who is nothing if not obliging, likes to cater for his readers, of whom "Statice" is but one. Now the question is: Are those of "Statice's" way of thinking the most numerous, or are the Sweet Pea worshippers?—A. D.

Poterium obtusatum.—This very interesting hardy plant has recently been in flower at Messrs. Barr and Sons' Long Ditton nursery, and it is to me absolutely new. Possibly it may be well known to some readers of THE GARDEN. Mr. W. J. Barr informed me that it was regarded as out of cultivation, although there is a white-flowered form (Poterium canadense) which grows to over 5 feet in height in commerce. The obtusatum variety produces broad bases of Geum-like leafage.

and sends up from it numerous dark stems to a height of 3 feet. These carry on their points spikes of tiny trunk-like flowers, and are 3 inches ong. These flowers are a pleasing rosy pink in colour. As presented, the blooms in form, though not in colour or length of spike, resemble those of the Bottle-Brush plant. I regard this plant as being, whether old or new, a distinct gain to our hardy border plants. It furnishes both colour and form that is uncommon in hardy plants. A few other really beautiful autumn bloomers are Veronica subsessilis, which has spikes of deep blue colour 6 inches long; Lythrum virgatum Rose Queen, a charming plant 3 feet in height; Pentstemon kelwayensis, a very fine form of barbatum; and Coreopsis senifolia, 2½ feet high, carrying yellow flowers in great profusion.—A. D.

Foxgloves from self-sown seed.—I enclose a photograph which, perhaps, might be suitable to reproduce in THE GARDEN. The Foxgloves are self-sown and make a pretty picture in all shades of pink and white on the edge of the plantation.—(Mrs.) T. E. LLOYD, *Croghan House, Boyle, Ireland.*

Ranunculus Lyallii.—Mr. J. E. Davies (page 399) has introduced a subject which has for long proved interesting, but I fear there are few who have much encouraging to say about this noble Crowfoot as a plant for our British gardens. There are a few records, I believe, of its flowering in our gardens, but they are few and far between, and it is doubtful if anybody is prepared to assert that they have had it long established as a permanent object in their garden. Just after the death of the late Mr. Charles Jenner, I visited his garden at Easter Duddingston Lodge, Edinburgh, and saw this Ranunculus, which had just gone out of flower. It was somewhat encouraging to those interested in it, of whom I was, and still am, one, to see it there; but I afterwards learned from Mr. M. Chapman, then gardener there, and now of Torbrex Nurseries, Stirling, that the plant died. Since that time I have both tried the cultivation of the plant and have seen it attempted in other places, but with only poor results. It is difficult to account for the failures with R. Lyallii here, as, from what we learn from New Zealanders, it ought to stand more severe winters than it experiences in many of our gardens. Many packets of seed have been sown and many young plants raised, but the net results have been disappointing in the extreme. I cannot at present lay my hands on records of comparative successes, but I have heard of such, but none which could be said to be more encouraging than those attained at Easter Duddingston Lodge. Mr. Chapman spoke warmly in praise of the beauty of R. Lyallii, as he had grown it, but he has by no means an optimistic view of its future in Great Britain and Ireland.—S. ARNOTT.

Cæsalpinia (Poinciana) Gilliesii. This South American leguminous shrub referred to by the Earl of Cranbrook in THE GARDEN for August 6 is also flowering on the front of the Museum No. 2 at Kew. It has bloomed there most seasons for the last ten or a dozen years. The clusters of yellow flowers with their long, red filaments present an attractive and uncommon feature.—H. P.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY VINES.—When intended for forcing early these Vines must be given every encouragement to thoroughly ripen their growth. The house containing them must be well ventilated day and night, and during wet weather a little warmth in the pipes at night is very beneficial.

Madresfield Court Grapes. — This excellently flavoured Grape has a great tendency to split, as it has a very thin skin. To obviate this many schemes are advised. If the borders are outside they should be covered with sheets of corrugated iron, or something similar, to prevent them from getting too wet. A dry atmosphere inside the house is essential. The cutting of a V-shaped piece out of the shoot a few inches above the bunch is sometimes effective.

FOXGLOVES FROM SELF-SOWN SEED.

Peaches and Nectarines.—As soon as the fruit is picked full ventilation must be given both night and day. If the lights can be removed so much the better. The old fruiting wood should be cut out and the young wood tied in, affording it every encouragement to ripen.

PLANTS UNDER GLASS.

Pot Roses.—Plants requiring repotting should receive attention at once. A suitable compost is made up as follows: Two parts stiff fibrous loam, one part well-decayed cow-manure, and add to this Thomson's Manure at the rate of a 5-inch potful to each barrow-load of loam, also a small sprinkling of soot, thoroughly mixing all the ingredients together. In potting, some of the old soil should be carefully removed from the ball with a pointed stick, and the plant put back into the same size pot. In some cases it will be found necessary to repot them into a smaller size than the ones they were in before. It is important in repotting that the soil be made firm. Plants that are not considered to want repotting should be top-dressed with cow-manure, first removing some of the old soil from the top of the pot. When the work of potting is completed the plants may be plunged in ashes.

Begonia Gloire de Lorraine.—These should be kept growing freely, and when the pots are well filled with roots a little stimulant may be given, but only to those plants that are not required for stock. It is an understood fact that highly fed plants do not produce shoots worth using as cuttings. A night temperature of 65° Fahr. should be maintained in the house, and the plants syringed two or three times daily according to outside conditions of the weather.

Chinese Primulas.—Abundance of air night and day is necessary to grow these well. The earliest batch may now be given a little weak soot-water occasionally.

FLOWER GARDEN.

Border Carnations.—A piece of ground should be prepared in readiness for when the layers are sufficiently rooted to plant. An open quarter is much better than borders under walls or hedges for growing Carnations. The site selected should have a good dressing of well-decayed manure, wood-ashes and soot. If sea sand can be procured this may also be added to the dressing. In turning the ground the dressing should be thoroughly incorporated with the soil, and this is better accomplished by using the fork instead of the spade for the work. The soil may be left to lie rough till required for planting.

Hardy Annuals.—Seeds sown now of Cornflowers, Scabious, annual Poppies, Coreopsis and many others will produce a crop of bloom early, which will prove extremely useful for cutting. The seeds should be sown thinly in drills, and severely thin the young plants as soon as they are large enough to handle.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PROPAGATING BEDDING PLANTS.

GERANIUMS. — I have given the bedding Pelargoniums their popular name, as very few indeed speak of them as Pelargoniums. No time must be lost in securing cuttings of this still useful bedding plant. It is well to take off these early in the day, and after having trimmed them to lay them in the sun for an hour or two before inserting them in pots or boxes. Stand the boxes in a cold frame, as it is best to have them where sashes can be run over them during heavy rains. Of course, some temporary arrangement may be erected over the cutting-boxes on which to lay sashes, and these will do admirably.

Pansies and Violas.—Although there is no particular hurry to have cuttings of these very useful hardy plants inserted, it is often easy to secure good sturdy young shoots at this season, which if left for a few weeks longer would be too leggy to make first-rate cuttings. Pull with the fingers these young growths, which spring from the centres of the plants, and if about 3 inches long they are just right. Insert firmly in light, sandy soil. Most growers use a bed in a frame, but I find ordinary cutting-boxes very handy, as when these are used the propagating can be done during wet weather, and again in spring, when the frame is wanted for something else, the boxes are easily

removed to some sheltered spot outside. They do equally well in boxes if watering is well attended to in spring.

FRUIT GARDEN.

Raspberries.—Even in the later districts the fruit will now be over, and the plantation should receive a little attention. All the old canes must be cut out, and if the others are at all crowded do not hesitate to well thin them out, always, of course, removing the weaker and badly placed canes. Clear off weeds and other rubbish, and so allow air and sunshine to reach every part of the border or break.

Strawberries.—Unless in very favoured localities it is rather late to make new plantations of this fruit. It is much better to secure the rooted runners and lay them in thickly in nursery rows. Of course, should one be anxious to plant permanently, a fair amount of success may be had if extra care is taken to lift only the very strongest runners, and these with a good ball of earth attached to the roots. Planted directly they are lifted the check will be practically nil, and they will have got a fair hold of the new soil before growth finally ceases. Plant on firm, rich ground, and see that the plants are well firmed with the fingers. Set low in the ground, but not so as to allow the soil to get into the centres of the plants, or many of them may go blind.

Gathering Fruit.—This important matter takes up a considerable amount of time, as it is work that should not be rushed. Gather fruit that has to be stored only when perfectly dry. Both Apples and Pears must be handled gently. All shelves on which fruit has to be stored must be scrupulously clean and dry. All the more valuable varieties should, if possible, be set out in single layers. Also, it is important not to mix varieties, as scarcely two sorts cook or eat exactly alike. Soft fruits that are wanted to be held over for a few days will keep best if stored in a sweet, dry cellar. When laid in such a place it is wonderful how long Plums, Apricots and even Peaches will remain in good condition. It is best to pick these fruits before they are dead ripe. Melons, too, keep well if stored in a dry, clean place a day or two before they are ripe; in fact, many excellent judges of this fruit are of opinion that this improves the flavour. The storing of Grapes has so often been fully and accurately described in THE GARDEN that I need say nothing on that point except to emphasise the necessity for absolute cleanliness at all stages of the work. Where the vinery may be required for the housing of Chrysanthemums about the last week in September, it is necessary that any ripe Grapes be cut and bottled. Tomatoes and Cucumbers for exhibition purposes may sometimes be kept for several days in a cool cellar, and lose none of their quality or attractiveness. It is necessary to do this at times, especially when fruits are ripening slowly, otherwise sufficient will not be available on the day of the show.

C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE KITCHEN GARDEN

NATIONAL VEGETABLE SOCIETY.

TRIAL OF AUTUMN-SOWN ONIONS AT TWICKENHAM AND SUTTON GREEN, 1909—1910.

SEVENTY-TWO stocks were kindly sent to the society for trial as autumn-sown Onions by nineteen distinct seedsmen, all of whose names were mentioned in the Cabbage Trial Report. The respective stocks of seeds were equally divided and sent to the care of Mr. W. Poupart, Marsh Farm, Twickenham, and Mr. C. Foster, *The Times* Experimental Station, Sutton Green, Surrey, under number only. The instructions given in each case were for the seeds to be sown in drills 12 inches apart on August 20, 1909, but in each case an adjoining drill was to be left, to lift plants from each stock and to plant into it, to test the effect of such transplanting. These instructions in each case were rigidly adhered to. One contingency, however, could not well be foreseen; this was the mild, growing nature of the late autumn weather, which had the effect of stimulating unduly rapid growth, which again in the spring led to much undue bolting off to flower on the part of the Onions. This feature was more marked, however, on the warm sand at Sutton Green, especially in the transplanted plants, than at Twickenham, where the cooler soil and very exposed position, while keeping the plants robust, were less conducive to this premature bolting. It is well to remark here that the primary estimate of the merits of the various stocks was made from the Twickenham trial.

The final inspection of the Onions was made by a large committee on July 19, when the following awards were made:

AWARDS OF THREE MARKS.

Messrs. James Carter and Co., Record; Messrs. Daniels Brothers, Golden Rocca; Messrs. Dickson, Brown and Tait, Excelsior, Giant Rocca and Red Italian; Messrs. Dickson and Robinson, Premier and Giant Tripoli; Messrs. Pearson and Sons, Trebons and Red Italian Tripoli; Messrs. Sutton and Sons, A1; Messrs. James Veitch and Sons, Cranston's Excelsior; Messrs. Webb and Sons, Giant White Tripoli; Messrs. Hurst and Sons, Ailsa Craig, Red Italian Tripoli and Giant Rocca; Messrs. Vilmorin-Andrieux et Cie., Vanguard (very early white); and Messrs. Watkins and Simpson, Wroxton Globe.

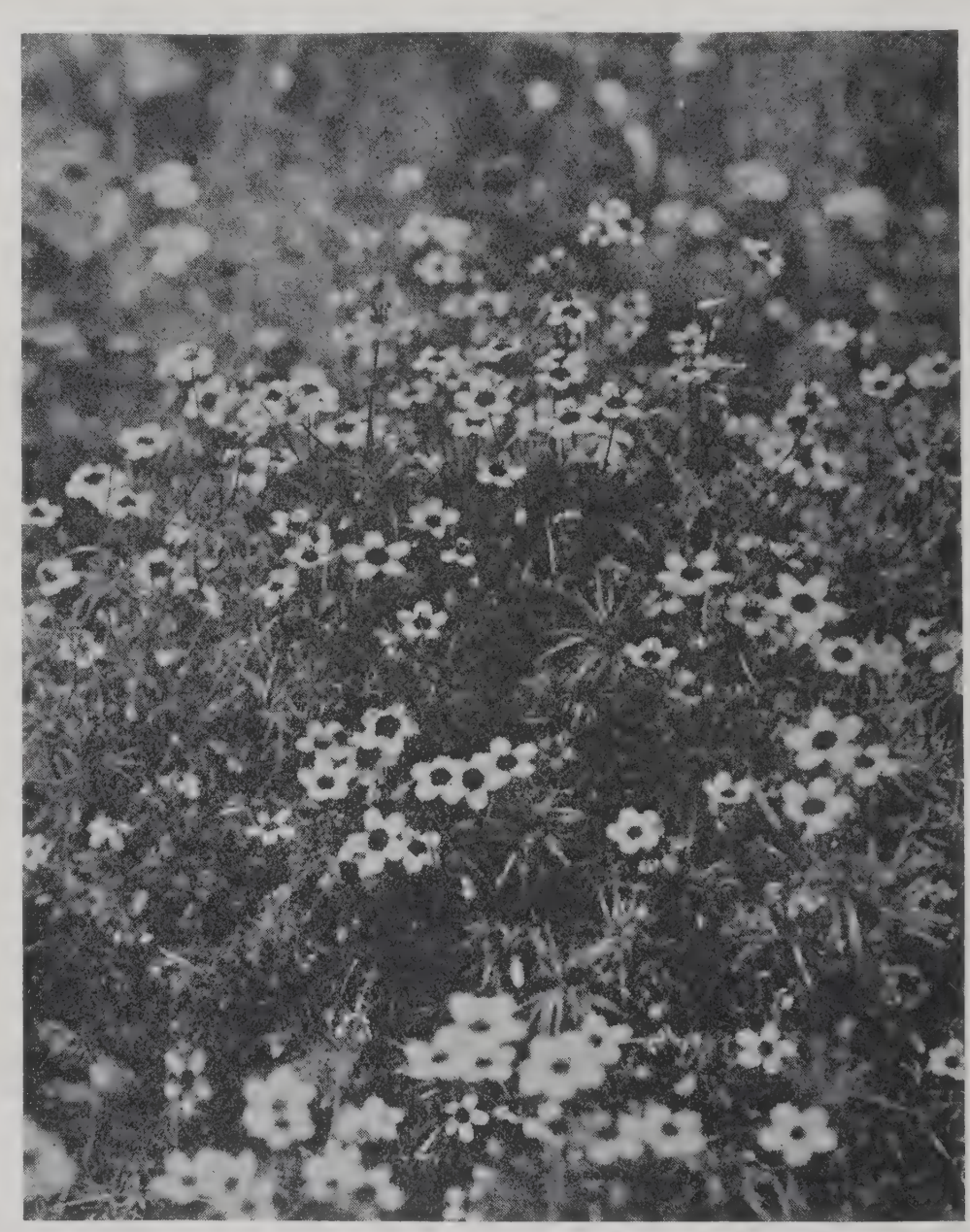
AWARDS OF TWO MARKS.

Messrs. Daniels, Allan's Reliance; Messrs. Dickson and Robinson, Flat Mammoth; Messrs. Dickson (Belfast), Wroxton Globe; Messrs. Pearson, Ailsa Craig and Giant Rocca; Messrs. Sutton and Sons, Perfection; Messrs. James Veitch and Sons, Giant Zittau; Messrs. Vilmorin, Snort Pale Red; Messrs. Watkins and Simpson, Cranston's Excelsior; and Messrs. W. W. Johnson, Giant Lemon Rocca.

The following, while not so well bulbed, were regarded as excellent or true stocks: Messrs. Austin and McAslan, Trebons and Excelsior; Messrs. James Carter, Tennis Ball and Early Wonder; Messrs. Daniels, Improved White Spanish; Messrs. Yates (Evesham), Giant White Tripoli; Messrs. Watkins and Simpson, Ailsa Craig; Messrs. Vilmorin, Blood Red; Messrs. Hurst, White Italian Tripoli; Messrs. Webb, Giant Rocca; Messrs. James Veitch, Main Crop; Messrs. Sutton, Globe and Improved Reading; Messrs. W. W. Johnson, Globe; Messrs. Dickson (Belfast), Lord Keeper; Messrs. Dobbie, Golden Globe, Giant Rocca, Trebons and White Tripoli; and Messrs. Dickson and Robinson, Paragon.

It is thus seen that the best of the more globular and keeping Onions for autumn sowing seem to be Ailsa Craig, Cranston's Excelsior, Wroxton Globe, Record and Trebons; and of the Italian or Tripoli section, Giant Rocca, Lemon or Golden Rocca, and Red and White Italian Tripoli are the best.

The committee's warmest thanks are due to Mr. Poupart and to Mr. C. Foster for their great kindness in providing ground and conducting the trials so admirably.



AN ANNUAL FOR EDGING: LEPTOSIPHON HYBRIDUS.

TRIAL OF EARLY POTATOES CONDUCTED AT SUTTON GREEN, SURREY, UNDER MR. C. FOSTER. "THE TIMES" EXPERIMENTAL STATION, 1910.

The tubers for planting were kindly furnished by numerous seedsmen and merchants, and were grown solely at this centre. Planting was done on April 20 in rows 30 inches apart, the sets being 18 inches apart in the rows. The soil is of deep sand, and for this trial was very moderately manured, the culture being that of the open field.

The inspection by members of the committee took place on July 29, several roots at each end of the respective rows being lifted for examination. Generally the crops were excellent and clean, but in few cases were the tubers large. The trial was an admirable one, and was conducted with all that care and impartiality which characterises whatever is undertaken by Mr. Foster.

AWARDS OF THREE MARKS.

Messrs. R. Veitch and Sons, Exeter, Lady Llewelyn; Messrs. Pennell, Lincoln, Sharpe's Victor; Messrs. C. Fidler and Sons, Reading, Sharpe's Victor; Mr. J. W. Cross, Wisbech, Sharpe's Victor; Messrs. C. Sharpe and Co., Sleaford, Sharpe's Express; Mr. J. F. Williamson, Mallow, Sharpe's Express; Messrs. Robert Sydenham, Limited, Birmingham, Sharpe's Express; Messrs. Dobbie and Co., Edinburgh, Alpha; Mr. A. Dickson, Belfast, Mile-Cross Early; Mr. G. Sharpe, Perthshire, Cragie Early; Messrs. James Veitch and Sons, Chelsea, New English Beauty; Messrs. Webb and Sons, Wordsley, First Crop; Messrs. Sutton and Sons, Reading, May Queen; Mr. A. Dickson, Belfast, May Queen; Messrs. James Carter and Co., Holborn, Advance; Messrs. Dobbie and Co., Edinburgh, Midlothian Early; Messrs. Scarlett and Co., Edinburgh, Midlothian Early; Mr. J. F. Williamson, Mallow, Midlothian Early; Mr. Harris, Blackpill, Seedling White Kidney; and Messrs. Hogg and Robertson, Dublin, New Coloured Kidney (Hebron type).

AWARDS OF TWO MARKS.

Messrs. Scarlett and Co., Edinburgh, Eclipse; Messrs. Hogg and Robertson, Dublin, Seedling No. 2 and Seedling No. 3, Yellow-fleshed Kidney.

Epicure (Messrs. Sutton and Sons, Reading), both from Scotch-grown and own-saved seed planted in the trial, gave in each case a superb crop of fine ware tubers.

New English Beauty, of the Ashleaf type, gave a remarkable crop of tubers, though not large.

First Crop and Lady Llewelyn very closely resembled each other from seed.

The committee desire to tender to Mr. Foster their sincere thanks for his admirable conduct of the trial and finding ground and requisite labour.

ALEXANDER DEAN.
(*Chairman of the Committee.*)

NOTES ON VEGETABLES.

PLANTING CABBAGES.—The spring Cabbage bed is undoubtedly one of the most important quarters of the vegetable garden, and the sweet, succulent hearts are always immensely appreciated when they come in. It was suggested in previous notes that two sowings should be made with a view to ensuring stocky, sturdy plants that would stand satisfactorily through an ordinary winter, and readers are now reminded that planting will shortly have to be done. The position assigned to the crop must be thoroughly prepared; but it is rarely wise to be too generous in the use of organic manures, because these may favour a sappy growth which will succumb to the variable weather of winter. For preference take a position that was heavily manured for the preceding crop and which still retains a good supply of food, and then rely upon mechanical working to provide all that is necessary until the spring, when a little nitrate of soda will quickly give the plants the fillip that is usually required.

SOWING SPINACH.—No time must now be lost in sowing Spinach for use in the winter. This is one of the crops that is somewhat neglected by amateurs and cottagers; but if they once came to appreciate the value of the plant as a blood purifier they would never neglect it again, and would see to it that there were always some good rows in the garden. The ground must be good, without being over-rich, and sowing should be done thinly to give the seedlings every chance right from the start. Even then it will be imperative to commence the thinning out very early, and eventually the plants for winter ought to be 8 inches or 9 inches asunder in lines 12 inches to 15 inches apart. Unless this space is accorded, the plants will never stand satisfactorily, and the labour in connection with them and the cost of the seeds will be wasted. It is worthy of note that the round-seeded varieties are quite as hardy as the prickly-seeded ones, though these latter are often recommended for winter use.

GATHERING AND STOPPING TOMATOES.—When, as is now so universally the custom with amateurs and cottagers, Tomatoes are cultivated in the open gardens it is necessary to give them close attention at all stages, and particularly so at this season, when the sun is perceptibly losing its power. Immediately the fruits become ripe enough they should be secured for the benefit of those which are not so far advanced, and it is further wise to stop the plants by taking out the top when three, or at most four, trusses are well developed.

WATERING AND FEEDING CELERY.—The partiality of Celery for moisture must never be overlooked by the grower who desires to achieve the greatest success. Within reason it is impossible to give the plants too much water, but, obviously, the quantity must not be so great that the ground becomes soured. In many instances, too, it is excellent practice to supplement the pure water with liquid manure, but the advisability of this must be governed by the merits of each individual case.

POTATOES.—The lifting of Potatoes should proceed as the varieties ripen, but no efforts must be made to interfere with the late sorts which are wanted for storing to supply the table through the winter. It is very desirable that these shall have an abundance of time for swelling their full crops, and beyond that a period in which the skins can harden and the finishing become complete. In all cases where disease has been present—and it is not often that we all escape its ravages—close inspection ought to be made as harvesting proceeds, so that infected tubers may be immediately removed from contact with the sound ones of the crop. To assume that the trouble only spreads in the growing plants is an error that has cost many a grower very dear.

H. J.

A GOOD SUMMER LETTUCE.

THOSE whose duty it is to provide Lettuces during the hot days of summer know only too well the difficulty that is experienced in maintaining the supply, owing to the fact that most varieties run to seed very quickly whenever a few days' drought is experienced. The variety illustrated, Sutton's Favourite, is one of the least troublesome in this respect, as the plants, even when they have formed large, solid hearts, will stand for several weeks, even in the hottest weather, before bolting to seed. In shape it differs from most Cabbage Lettuces, the somewhat conical-shaped hearts being very distinct. In addition to its value for spring sowing, this excellent Lettuce may be sown in the autumn, and will stand the winter as well as most varieties.

H.

LETTUCE SUTTON'S FAVOURITE.

THE FLOWER GARDEN.

A LITTLE-KNOWN ANNUAL.

THE charming little dwarf-growing annual listed by seedsmen as Leptosiphon hybridus appears to be but little known, yet its value for such purposes as edgings, carpeting beds, or for sunny positions in the rock garden is by no means inconsiderable. The illustration on page 436 will give other readers of THE GARDEN some idea of the beauty of this little plant. In shape and size the blossoms closely resemble those of that popular little Sandwort, Arenaria balearica, but they embrace a wide range of colours, the yellow and orange shades being, perhaps, the most beautiful of all. In addition, many of the blossoms have a well-defined

dark zone in the centre. The much-divided green foliage is produced in whorls at intervals on the slender, semi-prostrate stems, the height of the entire plant being about 4 inches. Unfortunately, the flowers do not open well in dull weather or when heavily shaded, and for this reason a sunny position should be chosen and the seeds sown where the plants are intended to flower. So far as my experience goes, this Leptosiphon will thrive in any well-drained soil, but it is well to avoid making it too rich with manure. There are, I feel sure, many of the lesser-known annuals which only need bringing before the flower-loving public to induce them to grow a few at least of each in their own gardens. H. W.

BEARDED IRISES BY THE WATER-SIDE.

I OFTEN see in gardens a dry, sunny bed at the foot of large shrubs or trees and more or less overhung by them, that is more of a trouble than a pleasure to its owner. Frequently it has been struggled with and planted with spring-flowering bulbs, and all may go well till the end of April; then yellowing leaves of Crocus and Scilla are untidy if left alone, and yet cannot be cut off if the same bulbs are to be left and expected to flower next season. Too often about May such a border gets "filled up," not planted, with the surplus annuals and tender bedding plants that have not found happier homes in the formal beds. These lead a starved and squalid existence until the first sharp frost puts them out of their misery.

I should advise treating such a bed somewhat as I have done that shown in the illustration on page 439—slightly raise its level towards the back by placing some good loam over the tree and shrub roots and plant it thickly with Bearded Irises, and it will require little further attention and pay rent in beauty, or at any rate neatness, all the year round. The fresh young leaves appear very early in the spring, and from the middle to the end of May the two common species florentina and germanica will give a wealth of blossom unapproached by any other plant I know. At first I tried planting the bed shown with I. florentina only, but I thought the effect rather washy, and introduced a few I. germanica, and now I find one clump of these to about six of florentina gives a very charming effect. The ground can hardly be too dry for these two, and they stand being robbed by their neighbours with an equanimity and forgiving spirit that would be a pattern to many a Christian.

Once in four or five years they may need replanting, and this is best done just as they go out of flower, and they are grateful for an allowance of fresh soil and a little well-decayed manure dug in. Even when out of flower there is a great charm in a thick mass of their glaucous leaves. I am trying to get a second season of flowers out of the bed by planting Galtonia candicans among them, but so far it has not proved so patient and contented under the dry and starvation conditions as the Irises, but it is so cheap that a few annual additions may prove worth the planting.

Waltham Cross. E. A. BOWLES.

THE FALSE STARWORT (BOLTONIA ASTEROIDES).

THE FALSE STARWORT.

(BOLTONIA ASTEROIDES.)

BOLTONIA, or False Starwort, is a small genus of composite plants not far removed from the Aster or Starwort, its most useful representative for the garden being the kind shown in the accompanying illustration, viz., B. asteroides. So far as the gardener and the decorative value of the plant are concerned, the illustration affords such striking proof that nothing further on that point need be said, while from the cultural side I have only to add that the plant requires much the same treatment as the Michaelmas Daisy; that is to say, annual or biennial division and replanting are calculated to give the best results. The best-known kinds are B. asteroides and B. glastifolia, the former with white rays and yellow disc, the latter with pink rays and yellow disc. Their flowering period is August, and height 3 feet. E. H. JENKINS.

THE ROSE GARDEN.

PLAN OF ROSE GARDEN.

[In Reply to "T."]

WE are charmed by the artistic and original design of the proposed Rose-beds, and have much pleasure in giving our opinion as to the varieties best calculated to please you. Viewing the plan from the top left-hand corner, for plot marked A we would suggest as the centre weeping standard the variety Hiawatha, with plants of Perle d'Or beneath. In the side beds of this plot you could plant six varieties in the order named: Joseph Hill, Pharisaer, Richmond, Caroline Testout, Frau Karl Druschki and Mme. Jules Grolez. For the plot in the right-hand corner marked B the centre weeping standard should be White Dorothy, with Maman Levavasseur beneath, then the following in the order named: Laurent Carle, Marie van Houtte, Liberty, Mme. Abel Chatenay, Lady Battersea, Prince de Bulgarie, Papa Gontier and Lyon Rose. For plot marked C, in the lower left-hand corner the central weeper suggested would be Lady Godiva, with Aschenbrödel beneath; and for the four beds General Macarthur, Mme. Hoste, Ecarlate and Mme. Ravary. For the plot marked D the central weeper is Lady Gay, with Eugenie Lamesch beneath. For the T-shaped beds on each side of the weeper we suggest two sorts for each, namely, Hugh Dickson and Mme. Pernet-Ducher, and Corallina and Queen Mab; for the four corner beds, La Tosca, Edu Meyer, Gustav Grunerwald and Betty. This would give you an excellent assortment of all the good bedding Roses. If you want more variety, we suggest K. A. Victoria, Mme. A. Mari, Mrs. T. Roosevelt, G. Nabonnand, Dean Hole, Earl of Warwick, Farbenkonigin, Gustave Regis, Dr. Grill, Mrs. Aaron Ward, Comtesse du Cayla and Charlotte Klemm. It would be a pretty feature if you could arrange for some wichuraiana Roses to be planted in the grass to droop over the edges of the canal that runs through this proposed Rose garden. Now as to the soil. We cannot promise much success with the black soil of which you send us a sample. Could you not procure some broken up turfy loam, the top spit from a meadow, and add this pretty liberally to the extent of one-half? Or perhaps you can obtain some good leaf-soil, which would give to the soil the humus which it is lacking. By all means add the clay and cow-manure liberally, admixing it well as the trenching proceeds. Let the gravel subsoil be quite cleared out, and provide a depth of at least 2 feet 6 inches of the new mixture. As it will be rather light, see that it is made firm before planting, and when planting see that the roots are pressed firmly into the soil. If you can procure some broken chalk or lime it will also be advisable to add some, but by all means procure some loam; and as you say you have a good supply of clay, this should be added, more especially to the lower stratum, say, 1 foot in depth of this clay, with manure incorporated, then the remaining 18 inches with the black soil, clay, loam, manure and some lime or chalk, all mixed together before putting it into the beds.

ROSES FOR NEW BEDS.

[In Reply to "Amateur."]

YOUR list is such a good one that we cannot well find fault with it. If you exclude certain sorts because they are addicted to mildew you will need to leave out some of the best. We should advise you to plant and diligently spray them, when you will be able to combat the fungus. For instance, Lady Ashtown is a bad one for mildew, but it is one of the best pink Roses. Irish Elegance

is delightful, and is not a bit too strong in growth, but is addicted to mildew. Marquise de Sinety, although magnificent in colour, is not a strong grower, but it may do if planted towards the end of the bed. Molly Sharman Crawford is splendid and a good doer. Richmond we should replace with General Macarthur, the latter being much the better garden Rose. With us Joseph Hill grows well. Sometimes it is inclined to spread out, but usually a stick or two will put this right, and it cannot well be left out of any two dozen. You do not name Mme. Ravary, still one of the best. Gustav Grunerwald we should advise instead of Mrs. D. Jardine, and Laurent Carle instead of Frau Lilla Rautenstrauch, which hangs its head badly. Laurent Carle is not the same colour, but it is a magnificent Rose. So also is Mme. Maurice de Luze; perhaps more suitable for you, as you wish to exhibit, than Countess of Derby. Mme. Constant Soupert is not at all a good garden Rose. We recommend instead Pharisaer or Mrs. Theodore Roosevelt, or plant both if possible, and you certainly must include Betty somehow, also Earl of Warwick. Some good ramblers are White Dorothy, Minnehaha, Leontine Gervais, Tausendschön, Shower of Gold, Non Plus Ultra, Bagatelle, Alberic Barbier, Réné Andre, Mrs. F. W. Flight, Goldfinch and American Pillar.

ROSE MME. PLANTIER.

ARE the present-day Rose-growers really aware of the beauty of many of the "old Roses"? I mean such grand old sorts as Mme. Plantier, a Rose that at one time was planted by the hundred for hedge-work and other picturesque features in the garden. What a picture it presented in June when the huge bushes were covered with the snow white blooms! It is such an easy Rose to grow and attains so quickly to a large shrub that I marvel it is not planted more often at the present day. Some readers may say, "Yes, it is a beautiful Rose when in full bloom, but it has such a brief season of flowering." This is very true, but I maintain we can well afford to overlook this defect if a Rose makes a grand display at one time, even though it is a brief one. Although not possessing the perpetual-flowering character of Aimée Vibert, in my opinion it is superior in effectiveness during the days of June. If space permitted on the lawn, a good hole should be opened out for a clump of Mme. Plantier next autumn, and into this hole put a cartload or two of good soil. Plant about three bushes in it, and support them with Bamboo canes brought together at the top like a tripod. If the soil is good, growth will be rapid, as the plants, being raised from cuttings, need no pruning the first year or two, and thus a shrub is quickly formed. Another excellent method of growing it is on standard Briars, a form in which it will make quite large heads which droop almost to the ground with their weight of bloom. I can recommend this Rose also as a pot plant, especially to market-growers. It is very charming for conservatory work. P.

THE FRUIT GARDEN.

LATE MELONS.

PLANTS in ordinary frames will need every care and attention to hasten the fruits along. Thinning the surplus growth and keeping the foliage clean, vigorous and healthy are essential at the present moment. Water the roots very carefully and endeavour as far as possible to keep the stems at the base of the plants on the dry side. If the weather proves warm with plenty of sunshine, admit air rather freely, but close early in the afternoon after sprinkling the leaves with tepid clean water, so that the heat may rise to 85° or 90°.

WHITE AND BLUE BEARDED IRISES IN MYDDELTON HOUSE GARDENS.

Melons at all times should be grown as rapidly as possible if good flavour is to be expected. All fruits should be raised above the foliage, so that they may have light and sun; but as soon as they begin to change colour, keep the atmosphere drier and the roots less supplied with moisture. Excellent Melons may be grown in frames with a little timely attention as regards stopping the growths and keeping the plants well thinned out. Any neglect in this respect may end in a complete failure, nothing being more detrimental than overcrowding followed by a severe thinning. Another item in connection with growing good Melons is not to overcrop the plants, a fair crop of medium-sized, well-flavoured fruits being preferable. Plants growing in houses with ample means provided for supplying suitable warmth will need pushing along, so that the fruits may have a chance of ripening before the end of October, after which date good fruits of high flavour are somewhat rare. Keep the roots healthy by frequently top-dressing with suitable loam. About half an inch thick each week spread all over the surface of the bed and made firm with a brick will greatly assist the plants to maintain vigour. This treatment I much prefer to a heavy mulch with manure at this season of the year. Three or four fruits will be ample for each plant to bear, and these should be as uniform in size as possible. Attend well to the stopping, tying and regulating of the shoots. Some of the laterals with no fruit, if crowding is likely to occur, may be removed entirely. Do not overcharge the house with moisture in dull, sunless weather. A close, moist atmosphere induces soft, sappy wood and leaf-stalks, which are so very liable to rot, especially late in the season. Two of our best-flavoured Melons this season have been Earl's Favourite and a variety, "G. F.," sent me by Mr. Ryder of Orpington, the fruits of this variety being solid, of great depth and exceptionally sweet to the rind. H. MARKHAM.

Wrotham Park, Barnet.

LATE STRAWBERRIES.

UNDER this title I had the privilege about this time last year of giving in the pages of THE GARDEN a few hints on suitable varieties of this valuable fruit for districts naturally late and cold. Judging from the letters I have received since, these notes have been of considerable interest to readers; and as I then promised to give the results of my trials of two new varieties, I now, with the Editor's permission, fulfil that promise. The two varieties I mention are not really new sorts, but are new to me here. Countess is certainly one of the very finest dessert Strawberries I have ever tried. It is of the choicest flavour, wedge-shaped and brilliant dark red in colour. The flesh is very firm and white, and I am certain it would make an excellent variety for marketing. The berry has the great advantage of colouring evenly, so that when one sees a red fruit lying on the mulching it may with all safety be picked without first turning it over to see if the other side is ripe. Being so firm in texture, rain does it but little harm. This year it is not a heavy crop; but as even Laxton's Leader is light in comparison to other seasons, I will not condemn Countess in this respect without further trial. Laxton's Fillbasket, the other new sort, is well named. The crop is simply immense. Unfortunately, it stands wet badly. The fruits are large, rather rough in outline, but of pleasant flavour. I had formed the opinion that this variety would be most successfully grown on light, dry soil and am glad to notice that Mr Wythes endorses that opinion on page 377. That this has not been a Strawberry year in Scotland is only too apparent. Leader has again been our most satisfactory kind, and even this has had a light crop in comparison to former years. Duke of Edinburgh has been much better than last year.

Preston House, Linlithgow. C. BLAIR.

GARDENING FOR BEGINNERS.

HOW TO BLANCH LEEKS AND CELERY.

GARDEN WORK WEEK BY WEEK

FLOWER GARDEN.—At this season plants and flowers soon begin to present a neglected appearance if they are not attended to every day. Even if our lawns and flower-beds are thoroughly cleaned one day, the next morning strong winds may have brought down many leaves from the trees, and leaves and shoots as well as fading flowers will be broken off the plants in the beds. Thus we see how necessary it is to give constant attention to the flower garden. Seedlings in flower borders must be taken care of, as they are so useful, and at this season the strong growth of surrounding established plants will almost smother them if they are not protected. A few small stakes fixed in the ground around the seedlings will prevent the spreading shoots of larger plants from lying across them. Some seeds of Sweet Peas may now be sown in pots to provide plants for putting out in clumps and rows next spring. Procure some 3½-inch and 5-inch pots, wash them well, especially the insides, and also the crocks. When dry three-parts fill the pots with good friable loam and sufficient sand to keep the soil porous. Place two seeds in the small, and three in the large, pot, covering them 1 inch deep or a little more with similar soil. Stand the pots on tiles or boards in the open and keep the soil in an even state of moisture; then the seeds will soon germinate and the resultant plants will be sturdy. Frames must now be got ready for the Violet plants, and the latter must also be prepared for lifting.

Vegetable Garden.—Late Peas will require no further mulching material to be put to them nor feeding with liquid manures; but 2oz. of superphosphate per yard run of row may be applied in showery weather. Growth will be rapid enough, but the difficulty will be found in getting late-formed pods well filled. It is quite different in the case of Dwarf Beans, as we require tender, succulent pods, and these should be plentiful on plants growing on a warm border well mulched and watered occasionally with liquid manure. An examination should be made of all root crops, and if any crowns of such kinds as Parsnips, Carrots and Beetroot are damaged, they must be pulled up and used, else, if left in the ground to be lifted when the whole crop is harvested, they will decay, and so not only be quite useless, but contaminate the sound ones. Roots must not be forcibly pulled out of the soil, else they will be scratched by the small stones and the tap-root is often broken off, causing bleeding. Gently raise the roots with a garden fork.

Fruit Garden.—Plum trees on walls generally become infested with aphides at this season, and the excrescence from the insects falls on the main leaves, and then dust collects there too. Healthy, clean leaves are essential to the well-being of all fruit trees, and as Plums often get more soiled from this cause than any other, it behoves one to pay special attention to them. Usually the aphides collect on very young shoots, and as these are not of much service to the tree so late in the year, they may be cut off and destroyed, the aphides along with them. Then thoroughly wash the foliage with the aid of the garden engine or syringe. The main leaves must be kept in a healthy condition until they commence to fade and fall off naturally.

Greenhouse and Frames.—The Fuchsia is a general favourite with nearly all amateur gardeners, and those persons who take up the cultivation of plants usually commence with the Fuchsia. At the present time large established plants are in grand flowering condition, but they will not remain so much longer. Directly the leaves begin to turn yellow and fall off less water must be given. Young specimens in frames should have all the air possible admitted to them to mature the shoots. Cuttings may also be inserted. Tree Carnations intended for early autumn flowering must be taken from the cool frames to the greenhouse. All shading must be dispensed with, but air should be freely admitted. Syringing must be carefully done, as if too much moisture is kept on and around the plants rust will quickly appear. A. A.

1.—A SIMPLE METHOD OF BLANCHING LEEKS BY BINDING STIFF BROWN PAPER MODERATELY TIGHTLY ROUND THE STEMS.

BLANCHING LEEKS AND CELERY.

THE period has arrived when both Leeks and Celery need to be taken in hand if blanching is to be satisfactorily accomplished; and as in the past this has been done by the inexperienced grower in anything but proper fashion, I hope by the illustrations depicted herein, and by the accompanying notes, to make the case a little clearer for the beginner. The rules that prevailed years ago, although they still hold good, have been improved upon, and it is satisfactory to note that the newer methods find favour and the results are in every way satisfactory.

I will first deal with the Leeks. These were planted in their permanent quarters in the early summer in most gardens, and where this work was then carried out the plants have attained very excellent proportions, and are now in a suitable condition to be dealt with in practical fashion. It is the custom for those who grow these plants for exhibition to commence the bleaching operations almost as soon as the plants are established in their permanent quarters. but for ordinary culinary purposes this is not so necessary. The concern of the grower is to be able to grow and perfect specimens that will find a ready use in the kitchen, and to do this and assist the beginner to bring about this desirable result is the aim of the writer of these notes.

In Fig. 1 is depicted a row of Leeks that were planted out in May last in well-prepared soil which had been enriched by heavy dressings of good

2.—THE SOIL DRAWN ROUND THE STEMS AFTER THE PAPER BANDAGES HAVE BEEN PROPERLY ADJUSTED IN POSITION.

lasting manure, and immediately subsequent to the planting and in dry periods since copious applications of water have been given when necessary. As a result of this treatment plants of the description shown in the afore-mentioned illustration have been brought into effect, and so satisfactory has been their growth that it has become necessary to commence blanching operations forthwith. This is carried into effect by utilising strips of stout brown paper some 6 inches wide and binding or bandaging these moderately tightly with two ties, one at the bottom and one at the top, to keep the blanching material in position. When the Leeks are planted on a level surface, the blanching may be completed in this way; but far more satisfactory results are achieved when the plants have the soil drawn round about them, by which means the bleaching is more satisfactorily accomplished. It will be observed that the specimens in the illustration denote growth of a robust kind, and with such plants it is an easy matter to bring into effect fine specimens representing really satisfactory cultural skill.

In Fig. 2 just a section of another row of Leeks that have been blanched as depicted in the first illustration is shown, but in this case the soil has been drawn round about them. The strong, vigorous growth which they show goes to prove

3.—CELERY READY FOR BLANCHING. ALL OFFSETS AND SMALL OUTER AND DECAYED LEAVES HAVE BEEN REMOVED, AND THE LEAVES LOOSELY TIED TOGETHER.

that this method of bleaching is one that should find favour, and I commend it to all beginners who desire to bring this much-appreciated vegetable to a satisfactory finish. I am aware that in many gardens the use of paper or cardboard for bleaching purposes is dispensed with, many growers being quite content just to draw the soil round about the plants; but the method I have advocated herein yields such excellent results, sufficient, in fact, to justify the system being adopted in all gardens where good results are desired.

Celery.—The treatment of Celery in regard to blanching is very much the same as that observed with Leeks; but in this case the concern of the grower should be to prevent the soil getting down into the heart of the plant, as this is a serious detriment, and not seldom causes the plant to rot and decay, bringing about results that are most undesirable. To blanch Celery satisfactorily by the means advocated in these notes it is necessary that the plants should be in excellent order before they are taken in hand. They should be making free growth and be represented in excellent proportions, both in diameter as well as in height; and for the guidance of the beginner in Fig. 3 a row of plants that are ready to be taken in hand forthwith is shown. When grown in natural fashion it is quite common for the plants to extend their heads in an outward fashion in vigorous growth, and if the grower were to attempt to mould up or bleach the plants without some preliminary operation, the chances are that failure would be the result. For this reason it is necessary, in the first instance, to draw the stems close together, so that the soil cannot work down into the heart of the plant, and then to secure by means of a tie, using raffia for the purpose, the whole of the growths together. They need not be very tightly tied; as a matter of fact, moderately tightly will serve the purpose better. This having been done, the grower should remove all offsets and decaying leaves; in fact, it would be better to do this before the plants are properly tied up, as first suggested. The great thing to remember is that each plant when it is tied should be represented by a clean and neat specimen, so that in adjusting the brown paper slips, and when bandaging or binding them round the plant, this may be done in an even fashion.

That the beginner may understand and appreciate the character of Celery plants treated in this manner, in Fig. 4 the method of doing this work is shown. Here will be observed the stately character of the plants, and also their even appearance, so that when the paper is bound round moderately tightly there will still be room left for the plants to grow and expand, while at the same time the bleaching process will be going on. Bleaching may be carried out on perfectly level ground by these means; but I prefer to draw the soil up round about the plants, as I am of opinion this assists in the more satisfactory bleaching of the plants and, consequently, makes the Celery more toothsome.

I am aware that certain vegetable-growers take exception to this method of bleaching Celery in gardens where the soil is of heavy texture, but they are quite content to admit that it answers exceptionally well in light, sandy soil. I have tried it on both, and although the paper may rot in very wet weather in the autumn, the result is far more satisfactory than when the plants are bleached in the old and orthodox fashion by simply drawing the soil round about them as and when they are ready. D. B. CRANE.

BULBS IN POTS.

ROMAN HYACINTHS AND NARCISSI.

IF a novice wishes to grow bulbs, he cannot select two kinds that will serve his purpose better than the above-named. In the first place, they are naturally early flowering and, consequently, may be grown by persons who have not command of artificial heat, they flower before severe frosts come, and are very free-flowering. All may be grown in pots or boxes. I advise beginners to cultivate them in pots. It is quite possible to grow bulbs solely in leaf-soil, but not at all desirable to do so, as in the hands of an inexperienced cultivator the plants may not attain to a large size and the flowers would not remain fresh long. The best compost is one that is made up of rather old fibrous loam two-thirds, leaf-soil one third, and plenty of sand to keep all porous. In the matter of gardening generally, cleanliness is essential, and it is especially so in relation to bulb-growing.

Brief Hints on General Treatment.—The best bulbs are those of good size, firm and well-shaped. Very large ones that are loose-skinned and not heavy and firm are worthless, or nearly so. The flower-pots must be very clean, especially inside, and dry. The crocks also must be clean and dry. The compost should be thoroughly mixed and in a medium state as regards moisture, neither too wet nor too dry. Having nearly filled the pots with the new soil, place four small or three large Roman Hyacinth bulbs in a 6½-inch pot and the same number of Narcissus Paper-White or a variety similar as to early flowering, and press more compost around them so that the crowns only are left above the soil. Then give all a good watering and bury the pots under ashes. In order to get a free growth, place empty inverted pots on the bulbs before piling up the ashes. When the new growths are about 2 inches long, the pots should be removed to a cold frame, and very gradually expose the young shoots to the light and air. Much and frequent watering will not be necessary until the pots are well filled with roots. If a few bulbs are so potted and treated at intervals of a month, a continuous display of bloom can be had. B.

THE TOWN GARDEN.

DAHLIAS.—These are now making a great show in the garden, though perhaps in some instances—the Pæony-flowered section, for example—the plants are too vigorous growing for the ordinary sized villa garden. However, some owners of small gardens arrange to plant a few of these bigger flowers because of their size and attractiveness, and where a screen of some kind is welcome they are helpful in this way. Strong stake supports must always be used, otherwise the wind will break down the plants. Some degree of thinning the branches will also be necessary, because of the manner the flowers crowd among the leaves. For decorative purposes, however, I incline to the single-flowered varieties, too long ignored by the gardener, and such as these, if gathered in the early hours of their opening, last a long time. The resplendent beauty and distinctive form of the Cactus-flowered varieties have their admirers the world over, though they are of greater value when grown specially for exhibition work. Still, a very showy variety, and one dwarf in habit, is the old Glare of the Garden, which provides bushes loaded with crimson-scarlet flowers. That arch-enemy of the Dahlia, the earwig, must be trapped at all hazards, or many flower-buds will be destroyed.

LIQUID MANURES.—At this season many gardening beginners are anxious—too anxious, perhaps—about these things and the "feeding" of their plants, believing apparently that flowers are produced upon a plant in much the same way as a Christmas goose is endowed with fat, viz., by a system of gorging with food, whether wanted or not. In the plant world such a system would speedily be fraught with the most disastrous results, and should not for a moment be tolerated. The application of liquid manures in season and in reason is, however, helpful to many plants at this time, more particularly to such as have been well grown from the start. In other words, neither liquid nor artificial manures can possibly undo the weeks of starvation or neglect that may have been permitted earlier in the year. Hence such things must be regarded in the light of a helpful tonic or stimulant to a plant that has been working hard all the season and whose holidays are not yet. Essential conditions to the free use of liquid manures are well-rooted plants, and such things as Chrysanthemums in pots quickly benefit thereby. Old plants of Perpetual-flowering Carnations that are too good to discard and which promise to flower well

4.—ANOTHER METHOD OF BLANCHING CELERY. THE PAPER PREVENTS SOIL GETTING INTO THE "HEARTS" OF THE PLANTS AND ALSO ASSISTS THE BLANCHING. THE EARTH IS SUBSEQUENTLY DRAWN ROUND THE PLANTS.

should also be assisted by weak liquid manures now.

HOW TO MAKE LIQUID MANURES.—Take an old rain-water cask or galvanised cistern, and place therein a couple of bushels of decomposed stable manure and about a peck of soot, or half the amount of each if more convenient. Place all in an open-meshed sack, and well work it about after it has become thoroughly soaked with water. A few hours later the mixture will be ready for use, and for the plants I have named may be employed at one-third strength, *i.e.*, one-third liquid manure and three-thirds clear water. For Chrysanthemums this may be applied daily if required, and for the Carnations twice or thrice each week. A fortnight later the strength for the first-named may be increased to one-half.

AUTUMN CROCUSES.—We are reminded of the early approach of autumn by the receipt of the preliminary lists of early bulbous things, notably the autumn Crocuses, Colchicums and the like. I refer to these things now so that they may be planted at once and not left, as is too often the case, to be ordered with other bulbs of later growth. Of the Crocuses I have more particularly in mind C. speciosus and C. nudiflorus, both of which, giving their flowers quite early in September or sometimes before, are admirably adapted for the rock garden at a time when few flowering plants are to be had.

PLANTS FOR OLD WALLS.—I was recently struck by the wealth of beauty and Fern-like grace and elegance of Corydalis lutea as seen growing in the hill districts of the Cotswolds. The plant is one of the most delightful for old walls and ruins, and makes a far more agreeable edging to garden walks than the tiles and boards so frequently used. E. H. JENKINS.

THE GREENHOUSE.

LACHENALIAS AND THEIR CULTURE.

LACHENALIAS are what may be called out-of-the-way plants. They are seldom seen at the fortnightly shows at Vincent Square, and when they are it is only once or twice in a season that they are shown in a way to do them justice. Ten or a dozen spikes all tied together and put in a vase without any greenery give all who do not know them a very wrong impression of their quiet beauty and their usefulness.

Let me sing their praises. First, they are easily cultivated. Secondly, they are a decided contrast to other winter and spring flowering bulbs that are usually grown in pots. Thirdly, they last a long time in bloom if they are grown, as they should be, in a cool house. Fourthly, they are excellent subjects for bringing into the house, and if some are kept in a slightly warmer temperature than the others a long succession of flowers will be obtained. Fifthly, as most of what I call for want of a better designation "ordinary" varieties increase very quickly from offsets, once a stock has been bought there is no yearly expense to be incurred in purchasing more bulbs, but quite the reverse, for we will have more bulbs than we began with of our own raising, and so will be able either to employ a larger-sized pot or put them in thicker than we did when we started, which is a decided gain, for Lachenalias do not look well when they are thinly planted.

What are Lachenalias like? Very probably some readers of THE GARDEN do not know them by sight. I am sorry to say I have failed to get a good photograph of a typical pot. They seem to me to be like certain people who never "take" well, so perforce I must try to describe them. Their popular name of Cape Cowslips gives some idea of the long tubular shape of the flower. But there the similarity ends, for the individual blooms are arranged on fleshy stems from 6 inches to 1 foot in height after the manner of a Wood Hyacinth, and the topmost buds, which are very often highly coloured, never expand. The leaves, which are generally only two or three in number, are of a fleshy substance from half an inch to an inch wide and in length anything from 3 inches to 9 inches, seldom more. In many cases they are beautifully mottled with pale reddish brown spots.

The cultural requirements of the ordinary varieties are simple. They like a rich, light, porous soil. Something like this I find suits them very well: One-third peat, one-third old leaf-mould, one-third loam, with dried powdered cow-manure and a fair quantity of sharp silver sand added for drainage purposes. The bulbs should be potted in August or as early as possible in September, and then stood on a damp bottom in a cold frame or in an unheated greenhouse, and plenty of air should be given, but cold draughts must be avoided. As the weather gets colder the plants must be taken out of the frame and placed where they may have a temperature of 45° to 50° Fahr. So treated, pendula will commence to bloom about Christmas, and they will follow one another until March if different varieties are grown. After the flowering period is over they should be placed in some position where they can be occasionally watered, and in early May put them into a frame, where they may be fully exposed to the sun and water gradually withheld. Here under glass lights I give them a good baking until the middle of July, when I shake the bulbs out and store them in bags ready for planting again in August. I should say I take the precaution when roasting the bulbs to put an additional half-inch covering of sand or soil over them.

Any size pot may be used. Personally, I like 6-inch or 7-inch best, and I always use for those that I intend to bring into the house the low-shaped ones. Lachenalias may be planted thickly. From six to ten bulbs in a 6-inch and from eight to thirteen or fourteen in a 7-inch pot is a suitable quantity. I have also seen excellent results when they have been grown in baskets. The same soil may be used and the receptacle lined with moss before planting. As a rule, the flowers are either all yellow or else they are a mixture of red, green and yellow, with, in certain varieties, a deep claret edge to the perianth segments.

The following are some of the best varieties that are in commerce. I hope, however, before very long some of the lovely new ones which have been raised at Glasnevin by Mr. F. W. Moore will find their way into the trade lists. Aurea, rich yolk of egg yellow—unfortunately, not a free bloomer—I have been told it should be raised from seed; Cawston Gem, greeny yellow, with a narrow edge of claret; Cowslip, rich deep yellow, with a wide claret red edge to the interior segments; luteola maculata, yellow, shaded green, with red at the base of the bells; Nelsonii, grand golden yellow, very robust and free; pendula, russet orange, very early; p. gigantea (syn. aureliana), deep rose pink, with green tips to the segments, very fine; quadricolor, red, yellow and green, with broad crimson lip; and Ruby, distinguished by the bright red of the buds, not so vigorous with me as the other varieties. Of the hybrids raised by Mr. Moore the following are particularly good: Aspirant, Brightness, Ruth Lane, Medley, F. D. Moore, Phyllis Paul, His Reverence, Shiner and John Geoghegan. JOSEPH JACOB.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Questions from Holland (*Mrs. H. Oewel*). — Pæonies will grow very well with a moderate amount of chalk in the soil, as also will the majority of the Primulas. The Lilies you mention will only succeed moderately if the chalk is in any appreciable quantity, and you would be wise to try a few before you make extensive plantations. In such a case it is always as well to experiment, as it is difficult to advise from a distance, not knowing the exact conditions under which the garden is situated. You need have no fear about the shrubs you mention, providing you work the ground well before planting them. The selection of Roses you give is a good one for your particular purpose, though we should prefer other varieties in one or two cases. Tea Rambler is one of the prettiest pink varieties; then you have left out the well-known Crimson Rambler. A very good deep red is also to be found in Grüss an Teplitz, while Climbing White Pet is preferable to The Garland in many places. A good strong-growing, cream-coloured Rose is Alberic Barbier, and we think it is more likely to succeed with you than Bouquet d'Or. By all means have the plants on their own roots; then if you give plenty of rich loamy soil and top-dress once a year with well-rotted manure, they will grow away strongly. Be careful not to plant too deeply in the first place.

Gladiolus failing (*An Enthusiast*).—As you cannot trace any signs of disease, it is highly probable that wireworm or some other insect pest has bored through the stem growth. Such an attack would cause a sudden collapse of the growth or the yellowing to which you refer. It may be due to this or to fungus about the neck of the plant, and this entering the stem has ruined the tissue. This, indeed, is the more likely cause, and a repetition of it may be avoided by sprinkling lime on the surface soil and lightly pricking it in. Pansies do not die down in the strict sense of the term, but remain evergreen. When the main flowering is over, all the flowered shoots or branches may be removed to within 1 inch or so of their bases to allow new shoots to appear. It is only rarely, however, that the old plants produce such fine flowers as those raised from seeds and flowering a first time. Freshly rooted cuttings, however, make excellent plants and give large, well-formed blooms.

Gypsophila seedlings (*Mrs. P. M. L. C.*).—The seedlings have been attacked by one of the leaf-mining maggots, which result from a fly, probably Phytomyza, depositing its eggs in the tissue of the leaves, the larvæ when hatched working through the leaves just beneath the epidermis. The only known remedy is by way of prevention and making the plants distasteful to the fly, which will not then settle upon them. Marguerites, Chrysanthemums and Celery are among the plants which suffer most. Syringing with soot-water or paraffin and soft soap sometimes acts as a deterrent to the fly. It is now

ate to sow seeds, though the plants if grown in a cold frame ould make strong ones to go out in the ensuing spring. n the matter of pests you appear very unfortunate. ome good rock plants are the alpine Phloxes, dwarf ampanulas, as pumila, pulla, Profusion, Stansfieldii and rganica in variety, a host of Saxifrages, Primulas, chilleas, Aubrietias and the like. We think, however, you ad better persevere with the destruction of the pests, and ith these reduced ask us in spring—March—to give you list of free-flowering subjects.

Ivy diseased (*T. L. B*).—The Ivy has been attacked y red spider. It should be sprayed with potassium lphide at the rate of 1oz. to two gallons of water.

Sweet Peas (*M. A. Taylor*).—It is highly probable at the "stodgy" nature of the soil is a predisposing use of the failure, and that a more complete drainage it would improve matters. Some of your plants, too, pear to be affected by the stripe disease, for which ere is at present no known remedy. We are not aware at this latter failing is transmitted through the soil om year to year, though to some extent it may be so. e should not, however, save seed from any of the plants der the circumstances, but secure supplies from afar. winter apply a heavy dressing of soot to the soil and rk it in. Later, say, about a month prior to planting t, apply one of the soil fumigants now in vogue, forking in a few inches deep and reforking it over again a few ys later. Avoid the use of manure in the soil for a year d note results.

Tall herbaceous plants for clay soil (*Mrs. Ford*). mong the more showy and suitable plants are the her-aceous Phloxes in variety, any of the taller-growing niphofias or Red-hot Poker Plants, *Day Lilies, *Anemone ponica in variety (which take, however, some time to tablish themselves), Delphiniums in plenty, *Achillea ipatorium, Anchusa italica Dropmore variety, Spiræa nusta, S. Aruncus, Astilbe Davidii, A. rivularis, Cimici-ga racemosa, C. simplex, Campanula pyramidalis, C. p. ba, C. lactiflora, Dictamnus caucasicus, Echinops Ritro, spærocephalus, *Helenium autumnale, H. grandicepha-n striatum, *Pyrethrum serotinum, Heliopsis B. Lad-ms, and white and red perennial Pea. Those marked th an asterisk do not object to partial shade. Most nuals prefer light or well-drained soils, and for these ur better plan would be to dig in plenty of road grit in e positions where you wish to grow them. For such ants complete success is very much a question of seasons, o perseverance and experiment.

Daffodils failing (*W. Whitcomb*).—It is probable at the failure to flower has been brought about by over-wding before the lifting and replanting, and if this is only the mother or larger bulbs would flower; that is say, only those having the flower germ properly laid or to the lifting would flower. The remainder, assuming ey are healthy, would take a year or more, according to the e and strength of leaf, to reach the flowering stage. In e Daffodil family certain types crowd around the mother breeder bulb constantly, while others shoot off at a ngent, so to say. The former may be likened to those ectionate children who ever cling to mother and home their protection and support, while the latter afford ustration of those youngsters whose independent natures se them early to shift for themselves to make headway the world. In your case all depends upon the health the stock, and as some of yours appear to be going back, is just possible that your light soil is too hot and dry some sorts, or, again, that some have a tendency to ed the bulb mite. Did any of the varieties exhibit wn-tipped leaves in spring? If so, there is something iss with the bulb. If the foliage is healthy but weak, have not much to fear. Can you give us fuller infor-tion as to this? so that we may help you if possible.

Gladioli unsuccessful (*Bray*).—A rather heavy clay y no means an ideal soil for Gladioli, however it is worked d treated. An important item in which it fails to meet requirements of the Gladioli is that the bulbs grown rein do not get ripened in the autumn as they do in re favourable soils, and, consequently, they deteriorate second season. The fact of the bulbs being smaller second season than when first planted is to be accounted in several ways. In the first place, where bulbs are wn for commercial purposes, a spot where the soil and ation are exactly suited to their culture is naturally sen, and such favourable conditions do not in all proba-ty prevail in one garden out of fifty wherein they are nted. Again, these Gladioli are grown either from ll bulbs termed spawn or from seeds. The object is n not so much the production of blossoms, but to ain fine large bulbs that will both sell and flower well en planted. The bulbs being thus, as it were, wound up concert pitch, have to bear the strain of a large spike of wers, often allowed to remain as long as there is a flower ble. Then Nature, in the attempt to perpetuate her d, forms new bulbs, often more than one. To see these in at their very best they need to be grown for a couple seasons under conditions equally favourable to those ler which the original bulbs developed.

TREES AND SHRUBS.

When to plant Rhododendrons (*H. E.*). u may plant Rhododendrons any time during tumn, winter or spring when the weather is en; but it is a good plan to avoid December and nuary if you can so arrange the work. Keep top roots close to the surface of the ground; n next May give a surface dressing of half-ayed leaves, but let them lie loose on the ground, do not fork them in. Daphne Mezereum may be propagated from seeds, which usually ripen freely. They may be sown as soon as ripe, either in an open border out of doors or in pots in a cold frame. We advise you to remove the turf from your lawn, lightly fork the ground over, level it, tread it firm and replace the turf. This will make a much better job of it than adding soil to the hollows as you suggest. The work may be done any time from September onwards to March. We cannot say what is the cause of your Violas going wrong without it is that the roots are in contact with fresh manure or that some insects, wireworms or eelworms perhaps, are at work about the roots or the bases of the stems. It would be a good plan to take up a plant and carefully examine the roots; this will probably guide you to the source of the trouble.

Ceanothus for a garden in Bexhill (*L. B. F.*).—If you intend to plant one variety of Ceanothus, decidedly the best is that seedling from the Mexican Ceanothus azureus known as Gloire de Versailles. It is a free grower, and the large panicles of delightful blue flowers are borne throughout the summer and often well on into the autumn months. A selection of a few of the best kinds would form a very interesting and attractive feature. The following are all good: Ceanothus rigidus, a true species from California whose dark green leaves are strictly evergreen. The purplish blue flowers are borne in great profusion in May. C. thyrsiflorus (Californian Lilac), one of the most vigorous of the Ceanothuses, with light blue flowers, at their best, as a rule, in June. Both these are true species, while those below are hybrids or garden forms: Gloire de Versailles, above alluded to; Indigo, the flowers of which are of the deepest blue of any; Ceres, pink; Gloire de Plantieres, light blue; Albert Pittet, rose lilac; and Marie Simon, rose. The extent to which most Ceanothuses retain their leaves during the winter is influenced greatly by the weather and position.

ROSE GARDEN.

High colour in Roses (*Dr. C. O. J.*).—We have never before seen such a remarkably deep colour in Rose Mme. Charles Monnier. Probably there is a liberal amount of iron in your soil that may account for the extraordinary colour. The blooms you send are as rich as Instituteur Sirdey. Of course, you will know whether your plants are true by their climbing growths, the last-named variety being of dwarf growth only.

Revising a collection of Roses (*I. H. T.*).—As your time and space are limited, we can fully appreciate your desire to possess only the best Roses, and shall have much pleasure in revising your list. As regards your second query, we certainly think the Briar stock is the best, unless you could obtain any sorts on their own roots, which is rather doubtful. Half-standard Roses are decidedly useful, especially for some of the Tea Roses; you obtain a better quality of bloom, and the flowers are more protected from damage by the soil, &c. They should possess good vigorous growth and roots, or it will be better not to plant them. Taking the greenhouse varieties first, we would suggest in place of Nos. 3, 5, 7, 8, 9 and 18 Joseph Lowe, Molly Sharman Crawford, Prince de Bulgarie, Mrs. Aaron Ward, Lady Roberts and Lyon Rose. Mme. H. Leuilliot should be treated as a climber or pillar Rose and sparsely pruned. Of the climbing Roses for the garden, instead of Nos. 22, 24 and 27 we would advise Hugh Dickson, Climbing Liberty and Shower of Gold. For the garden, you should have instead of Nos. 43, 45, 46, 47, 48, 50 and 51 such grand sorts as Mme. Maurice de Luze, Mrs. Theodore Roosevelt, Mme. Jules Grolez, Laurent Carle, Mme. Segond-Weber, Geo. C. Waud and Harry Kirk. If you can add a few more, you will find Walter Speed, André Gamon, Entente Cordiale, Mme. Réné Collette (Pernet), White Killarney and Wm. R. Smith very fine sorts.

Rose shoots diseased (*Mrs. H. W.*).—The shoots of the Rose appear to be suffering from chlorosis, and we suggest that the plant should be watered with a solution of iron sulphate at the rate of 3oz. to one gallon of water. No insect or fungus is present.

THE GREENHOUSE.

Flowers for a cool house (*S. O. H.*).—In the case of a small greenhouse without any artificial heat whatever, it is absolutely necessary that the plants therein during the winter must be perfectly hardy. In the autumn the structure may be enlivened with Chrysanthemums, while in winter Christmas Roses and the pretty little Erica carnea will be effective. Bulbous plants potted in the autumn, such as Narcissi, Tulips, Hyacinths, Crocus, Scillas, Chionodoxas, &c., will flower from the new year onwards, and as with this amount of protection they anticipate by a little time their flowering season out of doors, their blossoms are then much appreciated. Auriculas, too, and, in fact, most hardy members of the Primrose family, do well in pots, and will flower freely in such a structure. Wallflowers, too, may be potted up for the purpose. Dielytra spectabilis, Lily of the Valley and Solomon's Seal also make a pleasing spring feature. For summer, bulbs of Lilium auratum, L. longiflorum and L. speciosum may be potted, and a few summer-flowering subjects, such as Pelargoniums, Fuchsias, Cannas and tuberous Begonias, which can be purchased at a very cheap rate late in the spring when frosts are over, will afford a pleasing variety of colour till the autumn. The Ferns, too, must be hardy ones, but of these you have a wide choice. Many varieties of the Lady Fern (Athyrium Filix-fœmina) and the Male Fern (Lastrea Filix-mas) are delightful, especially in the spring when the new fronds are developing. These, of course, are deciduous, but some are evergreen, notably the Hard Fern (Blechnum Spicant), the Polypody (Polypodium vulgare), the Shield Fern (Polypodium angulare) and the Hart's-tongue (Scolopendrium vulgare), all of which are represented by numerous and beautiful varieties.

FRUIT GARDEN.

Grapes diseased (*David Low*).—Your Lady Downe's Grapes are affected by a disease named "scalding," to which at a certain stage in its growth this Vine is very subject. This disease invariably attacks the berries at stoning-time, when they are about half-grown. It is caused by warm rays of sunshine striking on the vinery in the early morning while the Vines and Grapes are moist with the condensed dampness of the night and before ample ventilation has taken place. The only way to escape its attack is by ventilating freely day and night while the Grapes are stoning, adding a little fire-heat to the pipes at night, and in cold weather during the day as well, so that a free circulation of air at all times is secured.

Nectarines having split stones (*Enquirer*).—The fruit when it came to hand was rotten and, therefore, of no use; but we quite understand from your letter the difficulty you are in with regard to your Nectarines. The cause of the trouble, we think, lies in the fact that the stones of the fruit are decayed, or what is commonly termed split, which means the same thing. The best way of steering clear of this difficulty in future is to take pains to set each flower on your trees with the pollen of some other strong variety which may be in bloom at the same time. This is easily

effected by means of a camel-hair pencil, removing the strong pollen from the anthers of other flowers and placing it on the stigmas of the varieties producing split stones. It should be done in the middle of the day while the flowers are dry. The cause of this splitting we believe to be the imperfect fertilisation of the blossom, by reason of the pollen being weak, insufficient, or by its faulty distribution. We much appreciate your kind remarks about THE GARDEN.

Diseased Grapes (*H. W. A.*).—Your Madresfield Court Grapes have the appearance of being scalded. Still, seeing that you have Muscat of Alexandria growing under the same conditions, and that Grape sometimes scalds freely, it seems strange that this, too, is not affected. Still, it is a thicker-skinned Grape, and may have the benefit of denser foliage to protect the bunches from the sun, or the vinery in which it is growing may be better ventilated. Scald commonly follows when a vinery has been shut up close all night, and, the soil being moist, great humidity is thus created. This settles as water on the bunches, and if hot sunshine bursts on them before the vinery is ventilated, scald often happens. It is so easy to understand the vinery being full of humidity when you say the borders were water-logged last winter. If that were so, the roots must have greatly suffered. Evidently the borders need draining, and to do that properly the roots should be lifted in November. That done, the borders remade and sweetened, plenty of old lime refuse, soot and some bone-dust should be added and made firm.

Falling Peaches (*Frome*).—Your yellow-fleshed Peach, which is probably Thames Bank, has certainly a shocking taste; but that is no doubt due to some grave defect in the root action. It is difficult in such a case to advise a remedy where no information is given as to the conditions under which the tree is being grown or the nature of the soil in which it is planted. We should, without such knowledge, in any case advise that you have the tree unfastened so soon as the leaves begin to fall, the top soil removed and the roots lifted. Into the soil beneath fork in lime rubbish or old mortar, also add a pint of bone-dust and some soot. Replant the tree, keeping the roots well spread out; then cover them with a fresh soil which includes good decayed turfy loam and the lime rubbish, soot, bone-dust and some wood-ashes, just covering a few inches thick. Make the soil very firm; then top-dress with a thin coating of long stable manure. Fasten the tree a month later.

Pear tree diseased (*E. W. B.*).—The Pear is attacked by the Pear leaf mite (Eriophyes pyri). The leaves attacked should be removed if only a few are damaged, but if many are bad the tree should be sprayed with paraffin emulsion.

Bark of Apple tree with red spots (*J. E.*).—The little red globules are the eggs of a mite which is quite harmless to fruit trees as a rule. It is known as Oribata lapidaria, and is often very abundant on the branches of various trees. The mites themselves are minute eight-legged creatures, bright or dark red according to age and condition.

Ants eating Nectarines on garden wall (*Red Rose*).—Nicotine compound, the same as is used for fumigating plant-houses, has been used successfully to destroy these destructive and tiresome insects. It should be sprinkled on pieces of slate, crockery or boards and placed round the trees as near as possible to where the ants abound. Some should also be sprinkled over the wall.

Fruit-stalks of Raspberries eaten off (*E. Ware*). Miss Ormerod, in her valuable reports on injurious insects peculiarly destructive to the Raspberry at the present season, mentions a certain weevil which gnaws the young shoots, also the leaf-stalks, usually biting them halfway through, as in your case, thereby seriously damaging if not wholly destroying the crop. There is no doubt that the same weevil is at work in your case. These weevils hide during the day under any shelter they can reach; but, as they are wingless, they cannot go far, or they could not so easily climb up the trees in the evening. The best way of getting rid of them has been found to shake the plants well late in the evening, laying tarred newspapers under the trees to receive them as they fall, and from which they cannot crawl away. The paper and weevils may then be destroyed by burning

Melon leaf diseased (*S. B.*).—There is some trace of red spider on the leaf of the Melon sent, and the dead spots have upon them a fungus, a species of Alternaria, which has been recorded in America as causing the death of Melons; but whether it is the first cause of the disease in the present case appears doubtful. It would be well to fumigate with sulphur, using a vaporiser; or possibly spraying with a solution of potassium sulphide at the rate of 1oz. to three gallons of water would prove beneficial. The diseased plant should be removed.

Set Apples and Pears missing (*F. P. H.*).—The manner in which the fruit has been detached has all the appearance of having been clean cut off by a bird's strong beak, or, by what is more likely, the sharp teeth of a four-footed animal in the shape of a squirrel. We have seen a whole wall of fruit trees cleared of their fruit in the course of a few nights by these pretty but mischievous depredators. Frost has been accountable for the destruction of a lamentable quantity of young fruit just set. Had this been the cause of the destruction of your fruit, it would have been left behind either on the floor or on the trees. We shall be interested to hear should you succeed in fixing the responsibility on the right shoulders.

KITCHEN GARDEN.

Potatoes with diseased haulm (*J. W.*). So long as there are any green leaves on the haulm of Potatoes, so long is it advisable to allow the tubers to remain to help swell and harden. But if the leafage is over, whether ripe or diseased, the tops may be removed by gently pulling them, the worker in so doing standing on the ridge, so that his feet prevents loosening the soil in pulling out the haulm. It is doubtful whether any gain attaches to this course, even if the tops are badly diseased. Still, in all cases except just lifting what may be wanted for consumption from day to day, it is best to allow all tubers to remain in the soil until the disease has quite exhausted itself, the spores diffusing it having gone to rest. We have seen in many cases tubers rushed up while the tops were full of active spores and the skins of the tubers still tender. Then, when stored away for a short time, disease has been found rampant in them.

Tomato leaves for inspection (*Mrs. A. W. C.*).—Something is wrong with the watering, in all probability, judging from your description of the appearance of the plants. The leaves arrived so badly packed and smothered with soil that they could not be properly examined.

Tarragon without flavour (*Sojourner*).—Dig the ground deeply, and in doing so incorporate a liberal dressing of leaf-mould and well-decayed manure. Plant in a fairly shaded position. Perhaps too great an exposure to the sun has something to do with its flavour being dissipated with you.

Cabbages and Peas eaten at the roots (*E. S. G.*). You enclose none of the maggots which are injuring the roots. From what you say, we should suppose your soil is rather sour, and would recommend you to add some powdered lime to it when digging in the autumn. If you will send us some of the maggots, we will examine them and advise you further.

Cucumber roots for inspection (*H. Butler*).—The roots have large swellings upon them caused by the attack of the root eelworm. Nothing can be done to the plants as they are so badly attacked, and it would be best to burn them unless the fruit is fully formed. After the plants are cleared out, before Cucumbers, Melons or Tomatoes are grown in the house again, the whole of the soil should be removed and the house thoroughly cleansed before fresh is brought in, or, better still, sterilise the soil by means of steam.

Tomato leaves diseased (*H. Jackson*).—The leaves are attacked by the too well-known fungus, Cladosporium fulvum. The only thing to be done is to spray them well and frequently with a solution of 1oz. of potassium sulphide in three gallons of water. Do this in the evening, and whenever possible give plenty of air. Tomatoes afforded not too rich a soil, given plenty of air and a dry atmosphere rarely suffer seriously from fungoid diseases. If the specking of the fruit continues, please let us see specimens, so that we may be able the better to advise.

MISCELLANEOUS.

Improving heavy clay soil (*R. P.*).—As you gave a dressing of basic slag last year, we think you would be wise to add some quarter-inch bones, digging them into the soil in November. A good dressing of burnt clay would be beneficial, forked in at the same time. Should you have any reason to believe your soil is deficient in lime, a dressing of broken chalk should be given in October at the rate of 2lb. or 3lb. per square yard, forking it in at the same time. You can readily ascertain if soil is wanting in lime by taki a few samples from different parts, mix togeth then put a little in a glass and pour on a wi glassful of spirits of salts. If it fizzes and bubb freely there is sufficient lime present, but if feel lime is required, and it is best applied as cha well broken into small lumps. Most soils requ a dressing of lime now and then, for unless it present manures cannot do their work. Hor manure may be dug in either in autumn or spri but it should be well rotted, not fresh or havi a lot of long straw with it. You will find Wakele Hop Manure an excellent substitute for farmya manure, and it may be dug in in spring to the gr advantage of the Roses, and may be used in co junction with the materials named above. Ro sinica Anemone is fairly hardy, but it would better to shield it from north and east. Bard Job is quite hardy. As to the Roses you plant in October failing after they were pruned we a unable to say, unless the soil was too wet for the Many Roses have been lost this last season owi to newly dug soils becoming saturated with t heavy rains of last autumn. When planting Ros it is always best to wait until the soil is in a go condition, especially clay soil, and give each plant shovelful of nice compost about its roots.

Soil and slugs (*Miss F. B.*).—The samp of your garden soil to hand show a very sti adhesive nature, such as we can well imagine mu be very difficult to work. Some of it, the wo or wettest, might, we think, be ameliorated burning or charring it. This is done by maki a heap fire of wood and coals, then coating it ov 9 inches thick with the clay, and as that g charred adding more until the heap gets to ma loads. This destroys its adhesive character, a its fertility for a time. If you could add such stiff soils from 4 inches to 6 inches road or street sweepings of a gritty nature, t should do much to help change its character. well lime soil your best course is to put down bushel of fresh kiln lime to each rod in a sm heap; then at once cast over each one a f inches of soil. In a short time these heaps w slake to a fine powder, when they may be even spread about and dug in as fast as they can l This should be done, however, in February March, which is the best time, but not wh the ground is wet. With respect to your pe of slugs, you should be able to combat the in the spring when out feeding. It is of little u to dress soil with anything in the winter, as the pests bury themselves deep or in quite out-o reach places. Either crop the ground in March April, as usual, or else sow, to dig in, a thick crop Mustard or Rape, and when that is up and slu swarm out to prey on it, then at night, wh feeding, that is, after sunset, literally smother t crop with fresh-slaked lime one evening, and tw evenings later with fresh soot, returning to the slak lime again a few days later. That is the time destroy slugs. We have done so wholesale, and, following up these dustings, in a short time prac cally cleared them off. The best experiment station in relation to soils is that of Rothamste Harpenden, Herts, the chief of which is Mr. A. Hall, a famous scientist. We doubt whether an one can give you better or more practical advi than is now furnished.

Dandelions on the slope of a terrace (*A. A*). The best way of getting rid of these persistent weeds to cut the roots 5 inches or 6 inches deep undergrou allowing them to wither, and then pull them up. A lon bladed old kitchen knife is useful to cut them with.

Fungus in tennis lawn (*F. H. C.*).—The mater sent is one of the gelatinous Algæ, a species of Nost It is able to be dried up and to regain its vitality aft wetting, and so maintain itself for years. Try spray with Bordeaux mixture or a very dilute solution (abo one part to a million) of copper sulphate

THE GARDEN.

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CONTENTS

THE VALUE OF HORTICULTURAL SOCIETIES 445
Horticulture and Mendel's Law of Heredity 445
NOTES OF THE WEEK
Forthcoming events 446
The National Vegetable Society .. 446
CORRESPONDENCE
A remarkable fungus 447
Allotment flowers .. 447
GARDENING OF THE WEEK
For the South and South Midlands .. 447
For the North and North Midlands .. 447
TREES AND SHRUBS
Olearia macrodonta 448
Hints for the planting season 448
KITCHEN GARDEN
A new early Potato 449
Some good Peas .. 449
Stag's-horn Lettuce 449
FLOWER GARDEN
Daffodil notes .. 449
Sweet Pea chat .. 450
Interesting plants in an Ascot garden 450
COLOURED PLATE
Clarkias as greenhouse plants .. 451
ROSE GARDEN
New Roses of the year 451
Rose Mme. Réné Collette 451
GARDENING FOR BEGINNERS
Garden work week by week 452
How to prune the Loganberry .. 452
Salvias 453
Grapes 453
Christmas Roses .. 453
Thinning-out Raspberry canes .. 453
THE TOWN GARDEN .. 453
Editor's Table 454
New plants 454
ANSWERS TO CORRESPONDENTS
Flower garden .. 455
Trees and shrubs .. 455
Rose garden 455
Greenhouse 456
Miscellaneous 456
SOCIETIES 456

ILLUSTRATIONS.

Olearia macrodonta at Trebah 448
A new white kidney Potato 449
Hydrangea Hortensia in an Ascot garden 450
Clarkia Firefly .. .. Coloured plate
Gunnera manicata in Rose Mount Gardens, Ascot .. 451
How to prune the Loganberry 452, 453

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE VALUE OF HORTICULTURAL SOCIETIES.

THE proposed formation of a National Hardy Plant Society, particulars of which were given in our issue for last week, has called forth a certain amount of criticism from those who, rightly or wrongly, believe that too many of what may be termed special horticultural societies already exist. These critics argue that the Royal Horticultural Society, the Royal Caledonian Horticultural Society and the Royal Horticultural Society of Ireland, together with the numerous local societies in existence all over the country, do all that is necessary for the advancement of horticulture, and that, therefore, there is no need for all these special societies, some of which are devoted to flowers which no longer appeal to the majority. Without in the least detracting from the usefulness of the vast amount of work done by the Royal societies named, we do not think the majority of those interested in gardening will agree with the views of such critics.

The time when special societies existed chiefly or solely for the purpose of holding one or more exhibitions during the year has passed, and all the more vigorous and flourishing societies now extend their range of action far beyond the exhibition tents. Committees of specialists are formed, trials and investigations are conducted, and, last but by no means least, valuable literature is prepared and distributed among members, so that everything worth knowing concerning the flowers for which the various societies exist is brought before those who are specially interested in such flowers. Those cognisant of the excellent work done in this way by the National societies devoted to the Rose, Sweet Pea, Dahlia and Chrysanthemum, to mention only a few, will know full well that such work is outside the scope of a Royal society, which has for its object the advancement of horticulture in general.

The objection which is taken by some to these special societies, unjustified as we think it is, cannot rightly be applied to the proposed National Hardy Plant Society, because this, like the National Vegetable Society, has much wider scope for its work. Not only is one kind of plant to be looked after, but the whole legion of hardy plants will, as it were, be included in its aims and objects. The interest now taken in all kinds of hardy plants is so extensive that we feel sure a special society formed for their advancement will find favour with many.

HORTICULTURE AND MENDEL'S LAW OF HEREDITY.

IT may interest your readers to know the results, so far as they have gone, of some experiments made by my gardener, Mr. Edward Palmer, at Drumlamford, Ayrshire, on the crossing of Tomatoes. I do not profess to have any scientific or technical knowledge entitling me to write upon the subject of Mendel's Law of Heredity and Horticulture, but Mr. Palmer calls my attention to a paper under that heading in the July number of the Journal of the Royal Horticultural Society, which leads me to think that it may be useful to make some of his results known through your columns.

The following are the three principal groups of experiments, dating from 1907, which furnish evidence on the question. In that year crossings were made thus: A dwarf Tomato with yellow fruit as male ancestor with three different females—(1) Eclipse, of tall habit and red fruit; (2) Ideal, medium tall, red fruit; and (3) Main Crop, medium tall, red fruit and heavy foliage.

In the first generation (1908) the progeny all had red fruit and all had the tall habit. There were no dwarfs. A fruit from selected specimens (showing good amalgamation) was taken from each separate crossing for producing further generations.

In all three cases the fruit of the second generation (1909) was of various colours—red, carmine, yellow and whitish, the red predominating; and in case (3) the heavy foliage of the female ancestor Main Crop was apparent. In this generation about one in twenty showed the dwarf habit and something of the male ancestor's foliage.

The third generation (1910) obtained from fruit, one of each colour, selected as before, showed the following results: In all cases the progeny had the tall habit (with the few exceptions noted below), and the fruit was of the colour of the fruit from which the seed was taken. In case (1) there was one dwarf out of about fifty plants, and this had red fruit. In case (2) there was one dwarf out of about forty plants, and this had pale carmine or peach-coloured fruit. In case (3) the foliage showed the habit of the original female ancestor; there was one dwarf out of about thirty plants, and this had yellow fruit. In all the dwarf specimens the foliage followed that of the original male ancestor. The flavour of the fruit varied, but was in all cases distinct from that of either of the original ancestors. It had characteristics of both, but the shades of difference were not pronounced enough to lead to definite conclusions.

The following observations on the fruit structure are also noteworthy. They were made upon the

crossing called case No. 2, the male parent being the dwarf Gem, bearing yellow fruit with *three* seed-cells, and the female being the Ideal, with red fruit, having *two* seed-cells.

All progeny of the 1908 generation bore none but red fruit, and these were *all* two-celled in the first horizontal truss of fruit. Some specimens began to bear three-celled fruit in the second truss, some in the third or subsequent truss, and *all* (with one exception) bore none but three-celled fruit from the sixth truss onward. In no case did both two-celled and three-celled fruit occur on the same truss. When the three-celled once appeared, the two-celled never appeared again. A two-celled fruit was used for further progeny.

In the 1909 generation all plants bore none but three-celled fruit without exception. The fruit were of all four colours, and a specimen of each was used for further progeny, the colour being transmitted to the progeny as before stated.

In the 1910 generation all but yellow fruit were three-celled. There were eight plants with yellow fruit, and of these two only had two-celled fruit, which persisted in the one case to the fifth truss, and in the other case to the eighth truss, when they were replaced by three-celled fruit. Here, again, there were no instances of the two kinds of fruit on one truss.

Mr. Palmer considers that these results are strongly confirmatory of the theory of the "dominant" character of the tall habit and the "recessive" character of the dwarf habit; and that the observations on the fruit indicate that these terms are more accurate than the terms "present" and "absent" suggested in the paper mentioned. At any rate, they seem to furnish data which may be useful to students of the subject. W. P. BEALE.

Drumlamford, Barrhill, S.O., Ayrshire, N.B.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 10. — Eddlestone Horticultural Society's Show.

September 13.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m, Lecture at 3 p.m. on "Roses" by Mr. George Paul, jun.

September 15.—National Rose Society's Autumn Show, Horticultural Hall, Vincent Square, Westminster, S.W.

Royal Horticultural Society's Spring Bulb Show.—The president and council have accepted the offer of the following prizes from Mr. Robert Sydenham for award by them at the Royal Horticultural Society's Spring Bulb Show on March 14 and 15, 1911. Bulbs grown in moss fibre or similar material (amateurs): Six single Hyacinths in separate vases, not exceeding 6 inches in diameter, to be selected from any one of the following varieties: Enchantress, Innocence, Isabella, Jacques, Johan, King of the Blues, Koh-i-Nor, Ornament Rose, Princess May, Queen of the Blues, Roi des Belges, Rose à Merveille and Schotel. Prizes 21s., 17s. 6d., 15s., 10s. 6d. and 7s. 6d. Six vases of Tulips (vases not exceeding 7 inches in diameter), no restriction as to the number of bulbs in a vase, to be selected from the following: Duchesse de Parma, Fabiola, Joost van Vondel, Keizerskroon, La Reve, Mon Tresor, Prince of Austria, Queen of the Netherlands, Rose Gris de Lin, Van der Neer, Vermilion Brilliant and White Joost van Vondel. Prizes as above. Six vases of Narcissi (vases not exceeding 7 inches in diameter), no restriction as to the number of bulbs in a vase, to be selected from the following: Blood Orange, Bullfinch, C. J. Backhouse, Dairymaid, Emperor, Glitter, Horace, Leonie, Lilian, Lulworth, Mme. de Graaff, Red Flag, Victoria and White Lady. Prizes as before.

Gardens and poetry.—Messrs. Truslove and Hanson will shortly add to their well-known series of anthologies a volume entitled "In Praise of Gardens," compiled by S. J. Shaylor. The volume will include most of the poetry of note upon gardens in the English language, and also a large quantity of prose. It will be illustrated with views from famous gardens. As usual, in this series there will be two charming end plates.

Special awards at Dunfermline Show. At a meeting of the Carnegie Dunfermline Trust, under whose auspices the recent Rose show was held at Pittencrieff Park, Dunfermline, a special gold medal was granted for the handsome exhibit of Sweet Peas made by Messrs. Dobbie and Co., Edinburgh. A silver medal was also voted to Mr. James Angus, Penicuik, for his exhibit of Carnations. These awards are in addition to those announced at the show.

Bottled fruits and vegetables.— Not the least interesting feature of the National Vegetable Society's forthcoming exhibition will be the classes devoted to bottled vegetables. The Anglo-Belge Glass Association, Limited, are offering valuable prizes for vegetables bottled in pure water in their clear glass bottles. Prizes are also being offered for bottled fruits at the National Dahlia Society's London show, to be held at the Royal Botanic Gardens, Regent's Park, on the 20th and 21st inst. Any effort calculated to increase the bottling of home-grown vegetables and fruits is worthy of the warmest support, as in seasons of plenty there is far too much excellent produce wasted.

The National Vegetable Society.—At a committee meeting held on the 30th ult. at the Horticultural Hall, Vincent Square, Westminster, a staging committee, with Mr. Charles Foster as head, was appointed for the forthcoming show. It was decided to award gold, silver-gilt and silver medals to non-competitive exhibits, providing the judges consider them of sufficient merit. Trials are to be held of early Cauliflowers, early Peas, round and long-rooted Beetroots, early Carrots for outdoor sowing and spring Onions. Two sowings of the Cauliflowers will be made, one this autumn and the other early next spring. The spring-sown Onion trial will be held for the purpose of ascertaining the value of sowing under glass, and subsequently transplanting the seedlings, as compared with seeds sown directly in the open.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Sweet Pea controversy. — Paraphrasing a well-worn quotation one might say, "Of the making of Sweet Peas there is no end"; and, indeed, so many are the numbers to-day that to undertake even to mention their "excellent differences" is a task the magnitude of which would appal the most enthusiastic. It is an opportune time to draw attention to the number of synonyms now on the market and the necessity of drastic action on the part of the National Sweet Pea Society to obviate what must undoubtedly damage the now very general cultivation of this indispensable annual. The present situation must be dealt with firmly, and it is to be hoped that the National Sweet Pea Society is powerful enough to meet the situation and give general satisfaction. No variety should receive the society's approval unless it is a distinct break away from those now in commerce, and, further, the society should be thoroughly satisfied that the stock is absolutely true. The Sweet Pea is, without doubt, the most largely grown flower in our gardens; it appeals almost to everyone. The great body of amateur gardeners grow it largely, and they are also prepared to follow the newer varieties to a reasonable extent, but the limit must be drawn somewhere. When an enthusiast purchases his novelties and finds an almost indistinguishable likeness to certain old favourites, or perhaps a row of nondescripts, from a packet of seed, then the necessity for nomenclature ceases, and your average grower will be quite content with his packet of Crimson Spencer, Lavender Spencer, White Spencer and so on, until he gets a distinct and reliable novelty. We are at the parting of the ways with the Sweet Pea, and the trade must surely have convinced itself that this rushing of novelties on the market will no longer be tolerated by the average grower with impunity. The truth is, growers are tired of so-called new kinds, sick to death of untrue stocks, and appear in many gardens to be now growing selected colours only. True it is, of course, that some houses have taken a decided stand against the present state of things, and equally certain it is that those firms will come out on top in the long run. The house that takes care that it lists no novelties until it is certain that they supersede old sorts, and which also deals in true stocks, is the house that will prevail ultimately. For the benefit of all concerned, trade and growers, it is time that some more rational methods of checking stocks were adopted, as well as selecting new kinds. It is to be hoped that the society will look at both sides of the question—not only protecting those who look to it for advice, but protecting also the specialists from themselves. There is ample room for new sorts in certain colours; we are sadly deficient in yellow, blue and scarlet. Again, there is the question of perfume. Our newer kinds are poorly scented, and some have no perfume at all. Odour is surely one of the most charming features of this flower, and here is an opening for improvement. It is necessary that the society should exert its authority, and admit nothing to its lists that is not distinct and valuable, and, what is more, true. Every man of experience knows that all booms must have an end sooner or later. It is not suggested for a moment that we will have an end of Sweet Peas in gardens; but this is certain—the specialists are fast causing the vast majority of growers to assume a position of apathetic indifference. It is time for a halt unless we wish to see a return of the old days with a row of reliable mixed Peas in every garden.—OTHELLO.

—— If your correspondents "Statice," "A. D.," &c., would run through the columns of THE GARDEN for the last year and make a comparative table of the amount of space devoted in its columns to Sweet Peas and any other popular flower, not to mention Roses and Carnations, they would probably find that they had little reason to let indignation vex them as a thing that is raw. Personally, after taking THE GARDEN for some years, I regretfully gave it up for another paper which gave more space to Sweet Peas. When all is said and done, Sweet Peas hold the same place among annuals that Roses do among perennials and Daffodils among spring bulbs, for you would find these three flowers in 99 per cent. of the gardens, large and small, of this country. Of what other annual can the same be said? And if this is the case, surely the gardening papers only reflect public opinion in giving its votaries a fair hearing.—CHERRY RIPE.

Nectarine Humboldt.—I was much interested in the note and illustration of the Nectarine tree in THE GARDEN of August 13. I would like

to add my testimony to the value of this variety for cultivation under glass. There are several varieties so grown that are not equal to this either in fruitfulness or in flavour; and certainly it must be included in the very first rank as regards size. The more experience I have of Nectarine Humboldt the more I like it, and have every confidence in recommending it as an excellent one for amateurs to grow. The growths are clean, the leaves large, but the flowers are very small; the fruits set freely and attain a large size without any artificial feeding of the tree.—B.

A remarkable fungus.—Mr. White, The Orphanage, Aberlour, Strathspey, sends the following letter from Sir Ford North: "I gathered a Boletus edulis yesterday, which, so far as my experience goes, is a record. You will find the dimensions on the inside of this sheet. I did not eat it, as many insects had been at it; but I ate two of the same kind, but younger and not so large, and am quite well this morning." The dimensions are: Circumference of cap, 2 feet 9 inches; from one side of cap to the other, over the top, 1 foot, across the tuber, 10½ inches; top of cap, from ground, 9 inches; thickness of cap, 3 inches; length of stalk, 6 inches; round top of stalk, 9 inches; round middle of stalk, 10½ inches; weight, 2lb. 9½oz.

Allotment flowers.—It is very gratifying to note the increasing interest taken in flower culture by allotment-holders. Where the allotments are on a large scale, a wide main road running down the centres cuts them, roughly, into four sections, and a small border, some 5 feet or 6 feet in width, runs on either side of the roads, portions of the same being held by those whose vegetable plots adjoin them. A very bright and pleasing display is thus provided, the effect as a whole being heightened by the excellence of individual things. Bedding plants are not much in favour, as the holders tell you "they are not much use for cutting," and this is a special consideration, the pleasure arising from the ability to pick a nosegay either for the home or a friend being not the least agreeable result of the labour. Pinks and Carnations are great favourites, the former being represented by Mrs. Sinkins and Old Chelsea. In Carnations it is interesting to note the Old Crimson and white Cloves doing well, the foliage remarkably clean and the flowers of large size. Sweet Williams are special favourites, and, as a rule, are raised from seed. Where this is obtained locally plants vary greatly in quality. In some districts really excellent strains are found. Stocks are also great favourites, and are mostly of the tall Ten-week strain. Magnificent spikes are often seen at local shows. The Goat's Rue, both Galega officinalis and the white form, are very common, and much appreciated for cutting to lighten the heavier flowers. The old Evening Primrose is everywhere, and many other forms of Œnothera are found. I saw macrocarpa doing splendidly on a moist bank during a recent tour of inspection. Evidence of fairly close proximity to a good hardy plant nursery is generally to be found in the presence of good varieties of well-known families like Pyrethrum, Phlox, Asters and Sunflowers. Of annual Asters the Comet strain, of which a few plants can be purchased very cheaply, seemed most in favour, and rightly so, as it certainly is one of the best for cutting. Few plots are without the sprigs of Mignonette and a few Sweet Peas, but the latter have not been satisfactory. Plants seemed weak when they came through, and did not go away in a kindly manner. Thrips got a firm hold during a short spell of dry weather, and the foliage was crippled. Dahlias are great favourites, especially gigantic flowers of the Dutch type.—A. G. B.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

CUCUMBERS.—Every encouragement should be afforded plants that are intended to produce a supply during late autumn and winter. A night temperature of 65° should be maintained, allowing a rise of 10° with sun-heat during the day. The plants should be syringed daily, according to the state of the weather, and the atmosphere in the house must be kept humid. A fair amount of growth must be obtained before allowing the plants to carry fruits, and at no time must they be heavily cropped. Mildew is often troublesome on late Cucumbers, and where it appears the affected parts of the foliage should be dusted with flowers of sulphur.

Pot Strawberries.—By this time these will have made good growth, and will require more room to allow a free circulation of air to assist in the ripening of the crowns. All weeds should be carefully removed and the runners cut off. A position should be afforded them where they can obtain full benefit from the sun, and the plants must not be allowed to get too dry.

Kitchen Garden.

Cabbages.—The earliest-sown batch should by this time be ready for planting out into their permanent quarters. It is a very important point that the ground be firm and not too rich for this crop, and the quarter that has been cleared of Onions is one of the most desirable of places. Cabbages have a greater tendency to bolt in heavily dressed and broken ground than they have when grown in moderately rich and firm soil. Drills should be drawn out 20 inches apart and the plants put out 18 inches apart, more or less according to the variety.

Globe Artichokes.—All the old stems should be cut out and the decayed foliage removed. Afford the plants a good top-dressing of farmyard manure. Later on protection against severe frosts will be necessary.

Mushrooms.—Material for forming the beds inside may be collected and spread out thinly in an open shed, shaking out the longest of the straw. It should be frequently turned to keep it sweet and also to prevent it getting too dry. When sufficient material is got together, form the bed into a conical-shaped heap to ferment. This takes a day or two, when it may be placed in the house. Beat the bed evenly and firmly, insert a bed thermometer, and spawn at 80° on the fall of the temperature.

Flower Garden.

Frame Violets.—Prepare frames for the reception of these and plant without delay. Old leaves form a suitable material for filling the frames, and on this the necessary depth of soil may be placed. The top of the bed when finished should be high enough to allow the plants to be as near the glass as possible without touching it. After planting afford the bed a thorough soaking, keeping the plants syringed and fairly close till they become established, after which the lights may be drawn off. Suitable varieties are Neapolitan, Mrs. J. J. Astor, Comte de Brazza, Lady Hume Campbell, Marie Louise and De Parme, doubles; and Amiral Avellan, Baroness de Rothschild, La France and Princess of Wales, singles.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Potting Bulbs.

Hyacinths.—The main batch of this old favourite should now be potted. Where the finer named sorts are grown it is well to pot the bulbs separately, but for ordinary greenhouse or room decoration three bulbs in a 6-inch pot make a fine display; 5-inch pots are well suited to the culture of single bulbs. Fairly good compost should be used and moderately firm potting practised.

Tulips.—These lovely flowers are much more valuable for room decoration than are the large-flowered Hyacinths. They have not the heavy, overpowering odour of the latter, and the lovely tints harmonise well with almost any kind of furnishings. Pot up now, as, like many other bulbous plants, the Tulip dislikes hard forcing, and so the earlier, in reason, the bulbs are potted up the more slowly need they be grown and the better will be the results. A good number of bulbs should be placed in each pot, as it is a fairly large mass that is most effective. If required for cutting, large numbers may very well be planted in boxes of good soil and treated in the same manner as the pots.

Polyanthus Narcissus.—Many people object to this useful plant because of its powerful scent, while others delight to inhale the odour. It is one of the easiest of all bulbs to cultivate, and if potted in quantity now the pots may be introduced to a little warmth in batches to suit requirements. For cut-flower purposes boxes should be used. All the above-mentioned bulbs must be plunged in coal-ashes, Cocoanut fibre, sand, or even in light, sandy soil such as is always plentiful about most places. If a sheltered corner out of doors can be given up to the bulbs I always think they do at least quite as well as when plunged under cover.

Cold Frames.

Propagating Rockets.—It is only by annual propagation that one is able to keep the beautiful double Scotch form of this fine plant. If cuttings can be obtained, now is the time to insert them in pots or boxes of sandy soil. They are usually very short, and some care is necessary to firm them in the soil and yet keep the hearts clear. Always try to secure a heel with each cutting. If set in a frame and well shaded, practically every one ought to root. As often as not the growths are much too short to be made into cuttings, so the only thing to be done is to lift the plants and with a knife divide into as many portions as possible. Single crowns with a few roots attached make admirable plants. Pot up the pieces separately, using 3-inch or 4-inch pots according to the size of the plants. Any light compost will suit, and see that it is well shaken in among the roots. Set or, better still, plunge to the rims in ashes in a cold frame, and keep close and shaded for a week or ten days. Afterwards give plenty of air on all favourable occasions.

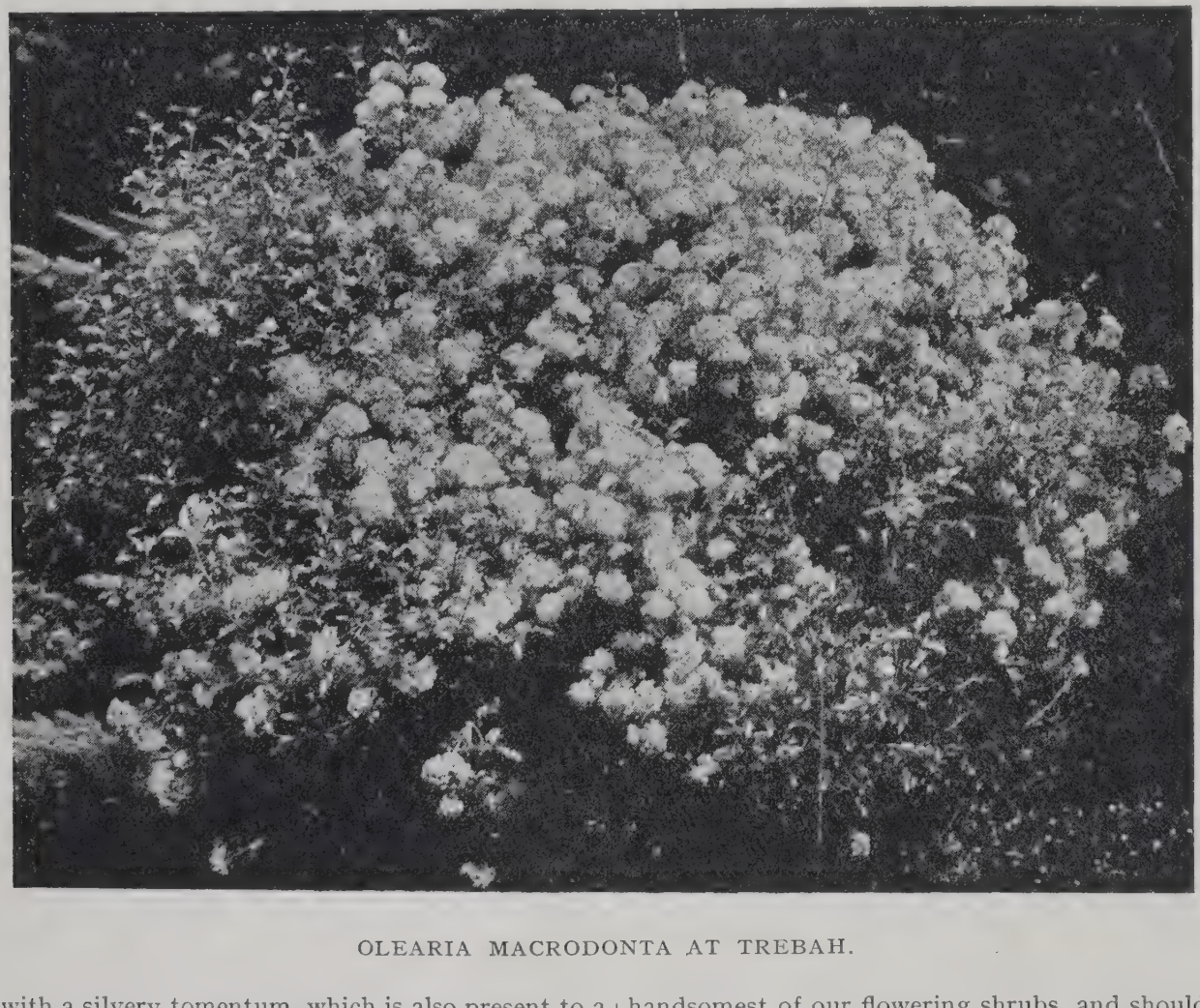
Dianthus.—Some of the Mule Pinks are among our most useful border plants, and it is well to propagate a quantity each autumn so as to always have a number of fresh, young plants to take the place of the old, worn-out ones. The finest variety of the lot, Napoleon III., is somewhat like the Scotch Rocket—very easily lost if annual propagation is neglected. Insert in sandy soil and stand in a frame, shading very carefully. Do not over-water nor yet let the soil get dry. A good companion to this lovely red Pink is Marie Pere, a pure white.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

TREES AND SHRUBS.

OLEARIA MACRODONTA.

THIS handsome flowering shrub was introduced from New Zealand in 1886. In that country it is known as O. dentata, but the true O. dentata is a native of Australia and bears large flowers over 1 inch across, which are saucer-shaped and white, tinted with rose; it is well grown in the Isles of Scilly. O. macrodonta bears alternately disposed leaves, which measure from 3 inches to 4 inches in length and 1½ inches in width, and bear a strong resemblance to those of the common Holly. The margins are irregularly cleft, and appear, at first sight, to be armed with stout spines, but on touching them they are found to be very little harder than the remainder of the leaf. The upper surface of the foliage is of a pale shining green colour, and the under side is covered with a silvery tomentum, which is also present to a lesser extent on the points of the young growths. These are of a brownish red tint and are roughly five-angled. The foliage when bruised gives off a Musk-like scent. The flowers are borne in axillary branching clusters, and are flat and some inches across. The individual blossoms are small and white, with a reddish eye, and are sweetly scented. They somewhat resemble a tiny white flower of Cineraria stellata.



OLEARIA MACRODONTA AT TREBAH.

It is a very attractive shrub in the South-West of England and in the South of Ireland, some specimens having attained very large dimensions. In Lord Barrymore's gardens at Fota, County Cork, there are a number of fine examples, the largest measuring 15 feet in height and 18 feet in diameter, and in Devon and Cornwall this size is often approached. In New Zealand, when fully grown, it is said to attain the dimensions of a small tree 20 feet or more in height, with a stem 2½ feet in diameter at the base, the branches being stout and forming with the leaves a round, somewhat flattened top, which is hidden by the dense heads of white flowers. In the South-West of England it generally blooms towards the end of May, but in colder districts does not flower until June or sometimes July. It is a vigorous grower, and should be given a position where it is fully exposed to the sun, in order that the wood may be thoroughly ripened.

This Olearia is easily propagated from cuttings of half-ripened wood inserted during the summer in a close frame, or from fully ripened shoots cut into 6-inch lengths and placed in the ground in a sheltered shady spot in the autumn. It is an extremely profuse flowerer, and is often so covered with bloom that the branches are borne down by the weight. When in full flower it is a very beautiful sight. In New Zealand it is a favourite hedge plant. Though it has been considered somewhat tender, it is in hardiness second only to O. Haastii, if, indeed, it is not equally hardy, as it has withstood over 20° of frost without being harmed in the least, so that no one should fear to attempt its culture because of its tenderness. It is one of the handsomest of our flowering shrubs, and should be in every garden.

WYNDHAM FITZHERBERT.

HINTS FOR THE PLANTING SEASON.

THE time of year will soon be with us when the general overhauling of the shrubberies will have to be undertaken, and no time should be lost in having a look round to see what alterations and additions may be made with advantage. More especially is it necessary to do this with deciduous subjects, as these appear to have more room after the leaves have fallen than is actually the case. It is also much more comfortable to walk round on a fine, dry day when there is plenty of time to spare and take note of work that requires attention than it is to have to do it in a hurry on some damp, unpleasant day later on.

Where extensive planting is to be done, the ground should be prepared at once, if it is not already in order, by trenching it deeply and working in some good well-rotted manure. Where single specimens are to be planted, holes 6 feet to 8 fee in diameter should be made, the depth being fron 2 feet to 3 feet, according to the nature of the soi and the subsoil. It always pays to make the hole large enough and to see that the ground is wel broken below, especially for those subjects tha attain a considerable size, as they have an oppor tunity to grow away freely for a few years befor the roots reach the unbroken ground. The shap of the holes is immaterial; the size is the impor tant point. It is better not to mix any manure with the soil when preparing the holes, as they may be planted with subjects that do not require manure, and it can always be used at the time o planting if necessary.

The Time for Planting.—The best time for planting evergreens is as soon as the young growth have ripened, which is usually in October. The ground is then warm, the autumn rains have commenced, so that new roots are formed in the course of a week or two, and the plants are well established before the cold weather. Failing the early autumn they are best left until April or May, as there is always a certain amount of evaporation from the leaves of evergreen trees and shrubs, and they require transplanting at a season when new roots are quickly formed to counteract the loss caused by evaporation. Deciduous subjects can be moved at any time while the leaves are off, but the best time for these, with two exceptions, is at the fall of the leaf, usually November. The exceptions are the deciduous Magnolias and the Tulip Tree, which should be planted in late April or May, as they have rather fleshy roots, which are apt to rot if lying inert in the ground for long.

Planting.—If the ground has been properly prepared beforehand, the actual planting is comparatively simple. Three points to be remembered are to see that the roots are laid out in a proper manner in the holes, that the plant is made as firm as possible by treading or other means, and that the finest and best of the soil is nearest the roots. It is a mistake to spoil the chances of a good tree by hurried and improper planting, as it only means a loss of time and labour. Care must be taken to get the plant at the right level, as deep planting is as injurious as planting too shallow. Practically all evergreens move with a ball of soil, which should be kept as intact as possible. In the case of large plants that arrive with the ball of soil wrapped in a mat or sacking, a good plan is to set the plant in position without disturbing the ball, and then cut away all the mat that can be got at around it without troubling about what is directly underneath. The latter soon rots and will be in no way injurious to the plant. With subjects like Rhododendrons and Kalmias, the ball of soil and roots may sometimes be very hard and it should be loosened with a pointed stick before planting. Large deciduous trees sometimes fail after being transplanted, and this can often be traced to improper planting. These large trees rarely hold any soil in their roots, and if a sharp look-out is not kept they will be left hollow in the centre directly under the stem of the tree. Fine soil should be worked carefully among the roots, especially in the centre where they spring from the trunk.

Staking.—All newly planted trees, and perhaps a few extra large shrubs, must be securely fastened to a stout stake, which should be driven into the ground close to the stem. The two should then be fastened together with stout string, using a piece of old sacking or such-like material to prevent rubbing. Extra large trees are best secured by three stout cords or wires fastened on the stem about one-third to one-half of their height, and secured at the other end to three stout wooden stumps driven into the ground at equal distances.

Bagshot, Surrey. J. CLARK.

THE KITCHEN GARDEN.

A NEW EARLY POTATO.

A NEW early Potato that I have tried this year and been very much pleased with is Webb's First Crop, a white kidney variety of excellent quality and free-cropping propensity. It is one of Messrs. E. Webb and Sons' specialities, and one of the best the firm has ever sent out. The illustration shows the produce of fifteen roots, the ware size from these roots amounting to just half a bushel. Of course, I am fully aware that this would not be an extra heavy crop for a maincrop variety, but for a first-early it is undoubtedly very good. Except that the tubers were arranged neatly for photographing, they are shown as lifted, and it will be noticed that there are very few small ones. The habit of this variety is dwarf and branching, and it comes in for use about the same time as the well-known Midlothian Early, which, excellent though it is, some object to on account of its yellow flesh. When cooked First Crop is very white and floury, and I consider it to be one of the best early Potatoes of the future. It is interesting to note that in the National Vegetable Society's trials held at Sutton Green this year this variety received the maximum number of three marks, which may be regarded as equivalent to the Royal Horticultural Society's award of merit. Owing to its dwarf, compact habit, this Potato is an ideal one for a small garden. H.

A NEW WHITE KIDNEY POTATO: WEBB'S FIRST CROP.

SOME GOOD PEAS.

ONE of our best Peas is International, which was sent out a year or two ago by Messrs. Carter of Holborn. This season has evidently well suited it. It is quite distinct and bears large pods of most delicious Peas, which are excellent when cooked. This variety is appreciated by small growers. I have seen some notable examples in cottage gardens and fine produce on the exhibition table. Other Peas that have done well are Commonwealth, a dwarf variety well adapted for small growers; and Buttercup, a hardy type of Daisy with large and well-filled pods that when cooked are of excellent flavour. Harvestman is a Pea that has proved a success this season. It is a cross between Express and Duke of Albany, and one of the best for quality and productiveness. It grows about 5 feet 6 inches high, and its constitution is strong. Dreadnought is a very fine new Pea, and will in time supersede many that are now on the market. It bears profusely large pods with very large, bold Peas, while its disease resistance, even in a season like 1910, is remarkable, as this has not been an ideal Pea season among gardeners or trade growers, judging by the high prices that have been paid. In the early season I was much impressed with Giant Lightning. It succeeded well, had quite large pods, was among the earliest and filled the baskets quickly owing to its enormous crop. Early Morn came on well and quickly, and was the first to be cleared off the ground. It was not the first to pick, but this variety comes in very rapidly and quite maintains its record as a first-early marrow. Sutton's Exhibition Marrowfat has been a great success this season, and is a most excellent Pea. Best of All is a fine Pea for the summer, and is a prolific and most exquisitely flavoured variety, good for table and exhibition, and I have met with some fine specimens. Prince of Pea likewise holds its record as a fine type. King Edward is a wonderful second-early Pea, and to anyone who has not grown it I would strongly recommend them to do so. World's Record is a fine Pea of the early variety; just the Pea for a warm south border for picking and packing for the London season. Pioneer and Reading Wonder were not quite so good this season with me. They probably require less rain and more sunshine.

STAG'S-HORN LETTUCE.

THIS is a new Lettuce from Messrs. Dickson and Robinson, and is a most beautiful decorative variety of quite a novel and distinct form, of most attractive appearance, and is short and crisp. As a smart-looking Lettuce in a collection there is nothing to equal it. Many visitors have made enquiries about its merits in this way, and, moreover, it does not readily bolt. Of course, it is in the Cabbage section, and I would recommend it to amateurs who exhibit salads. W. A. COOK.

THE FLOWER GARDEN.

DAFFODIL NOTES.

SEEDLING-RAISING.—Apart altogether from its value for cut flowers or for garden or greenhouse decoration in the first few months of the year, the Daffodil appeals to certain people because it is undoubtedly a "florist's" flower, and they like the pleasurable excitement connected with an exhibition; while an ever-widening circle of seedling-raisers is being formed by those who, either for the above purpose or for their own curiosity, have already begun or are about to begin to cross-fertilise in the hope of obtaining something good and new. I suppose the chief reason why a far greater number have not already done so is the tediousness of the wait between the time of sowing the seed and the opening of the first flower. Four to six or even seven years is a long period in which to possess one's soul in patience; but to repeat once more the rather hackneyed quotation from old Philip Miller in his "Gardener's Dictionary," "After the first five years are past, if there be seeds sown every year there will be annually a Succession of Flowers to shew themselves; which will take off the tediousness which during the first five years might be troublesome to some persons; and the annual Production of new Flowers corresponding to the annual sowing it will be as if the Product arose soon after."

So the first thing to do if one goes in for seedling-raising is to make up one's mind to have seeds to sow every year. To those who are hesitating about the venture, I would first of all point out that the proverbial luck of the beginner follows the Daffodil-raiser just the same as anyone else. Mme. de Graaff, Bernardino, Seagull and Albatross, King Cup and Challenger are all of them the result of early efforts. Secondly, it cannot be too widely known that the mating together of some quite low-priced pollen and seed parents is capable of giving excellent flowers. Homespun, which is the result of crossing Golden Spur (price 1d. a bulb) with ornatus (price ½d. a bulb), is one of the most perfect show blooms that we have, while from Minnie Hume (½d. each) and triandrus albus (1½d. each) come those exquisite pure white Fuchsia-looking hybrids which more than rival the Snowdrop in everything but its earliness. Or if we take into our reckoning just a little bit more expensive bulbs, from Weardale Perfection and Mme. de Graaff as seed parents, with small Leedsiis like Mrs. Langtry or Minnie Hume as pollen parents, there has come that new and magnificent type of giant Leedsii of which White Queen is the best-known example. Seedling-raising, with a fairly certain prospect of obtaining something worth having, is open to anyone who can find a spare guinea in his purse, while for those who can find more the prospect is still brighter.

Bob Short is a wonderful man—a sort of Shakespeare in the multiplicity of subjects and things with which he is familiar, and a sort of "Wandering Jew" in the way he seems to be endowed with perpetual life. Raising new Daffodils from seed has not escaped his attention, and, following his usual custom, he has compiled a few brief hints for our guidance. Here are some of them:

(1) Some varieties are better than others both as pollen parents and as seed parents. Good seed parents are Apricot, pallidus præcox, Henry Irving, Golden Spur, Emperor, M. J. Berkeley, P. R. Barr, obvallaris, Mme. de Graaff, Mrs. Thompson, Weardale Perfection, Hon. Mrs. Barton, J. B. M. Camm, Duke of Bedford, Mrs. Langtry, Minnie Hume, all the Poets, Stella, Frank Miles, Eyebright, Firebrand, Beacon, Princess Mary, Lady M. Boscawen, Cresset, King Alfred, Lulworth and Blackwell. Good pollen parents are King Alfred, Mme. de Graaff, Maximus, Weardale Perfection, Emperor, all the Poets, triandrus albus and triandrus calathinus.

(2) Some varieties are shy seeders, therefore they should be avoided until experience has been gained; such are Empress, Maximus, Horsfieldii, Glory of Leiden, Sir Watkin, Gloria Mundi, Flora Wilson, Homespun, Crown Prince, Duchess of Westminster, Stella superba and White Lady.

(3) Be sure to take away the anthers before they burst.

(4) Apply the pollen on a dry, warm day, and repeat the process a second time on the day following.

(5) Remember (*a*) a trumpet crossed with a Poet generally gives a cup (incomparabilis); (*b*) a trumpet crossed with a Leedsii produces a giant Leedsii; (*c*) a Leedsii crossed with triandrus albus or t. calathinus gives lovely white Fuchsia-like flowers, generally two or three on a stem (Bob Short's special recommendation this); (*d*) an incomparabilis crossed with a Poet produces small cupped varieties (Burbidgei); (*e*) Princess Mary and Poets produce flat-crowned flowers (Engleheartii); (*f*) a Poet crossed with a Tazetta gives a Poetaz (that is, a plant which has from two to six fair sized blooms on one stem); (*g*) pollen will keep good for two weeks if kept in a dry airy place; (*h*) you must walk before you can run—that is to say, experience and experiment are the best teachers.

JOSEPH JACOB.

HYDRANGEA HORTENSIA IN AN ASCOT GARDEN.

SWEET PEA CHAT.

"STATICE'S" TROUBLE.

SINCE "Statice's" letter appeared in THE GARDEN for August 13 I have been much worried about him, and can only come to the conclusion that he is either an unsuccessful exhibitor or that he has not achieved the most gratifying results in his cultural efforts. I may be wrong in these suppositions, but "Statice" must have undergone some upsetting and jaundicing circumstance to force him to compare the Sweet Pea popularity with the Potato boom of old. He fears that there will be too many varieties. This is stale news, since every expert has willingly acknowledged that there have been too many for some years, and no efforts have been spared by many to cut them down. But the constant accession of new and improved sorts naturally augments the list, and "Statice" must bear in mind that there are still many hundreds, probably thousands, of people who insist on having the old ones, notwithstanding the fact that both for garden decoration and for exhibition they have been long superseded. Thus the seller is bound to maintain a stock of the obsolete varieties at the same time as the number of new ones increases, and we have, as a consequence, growing lists. Whether the Editor devotes too much space in THE GARDEN to Sweet Peas is obviously a matter for his judgment as guided and influenced by the desires of the bulk of his readers; but I do know that there are many of the latter who would not grumble in the least if a column were given over to the plants each week instead of each alternate issue as at present, and few of these would term themselves specialists in any sense of the word. They are interested in what is indisputably the garden flower of the day, and the proud position to which it has attained it will retain when "Statice" and I have passed to the great majority and our successors are adorning by their cultural efforts the gardens of England. If "Statice" desires to achieve the doubtful honour of engineering the deposition of any plant from its place of honour in the minds and hearts of gardening Britons, he will have to turn his attention to one that is less generally useful than the Sweet Pea, and even then the probabilities are that he will most hopelessly fail of his object.

SEPTEMBER SOWING.—Time was when the redoubtable Mr. Alexander Malcolm produced superb flowers on his Sweet Peas by commencing the important work of seed-sowing in September, and it is more than probable that he continues in the practice which he found to answer so well. The trouble with most of us is that, much as we would like to experiment with the system, we are prejudiced from the start because we cannot secure new seeds. We have to rely upon those of the previous season, and when it was such as that of last harvest-time, the prospects of success are not of the brightest. Nor is this the only disadvantage. One also has to face the ravages of slugs, which appear to have an even better appetite for the sweet, young plants in the autumn than they have in spring, and this is saying much. However, no matter what the disadvantages and troubles, present and prospective, may be, seeds will be sown in districts where the soil is naturally extremely heavy and cold, and where, as a consequence, germination is more or less uncertain and the subsequent progress of the plants is necessarily slow. In view of the fact that there is a danger of many seeds rotting, it is wise not to sow as deeply as one would do in a more congenial medium, and to have plenty of sharp sand in the soil immediately surrounding the seeds. Plants from seeds sown this month will make magnificent roots, and these will favour the development of superb flowers in the following season. Another method which is well worth a trial is to sow in 6-inch pots in the usual manner, and to put the resultant plants out into their permanent positions in November; but the risk from devastation by slugs will probably be even greater in this case than in the other, while there is ever present the further danger of losses from mice securing admission to the frame and thence to the seeds. If the possible troubles can be circumvented, then September sowing, either out of doors or under glass, is thoroughly well worth trying, since it is more than probable that excellent results will accrue.

SPENCER.

INTERESTING PLANTS IN AN ASCOT GARDEN.

I AM sending photographs of Gunnera manicata and Hydrangea Hortensia, as my employer, P. G. B. Westmacott, Esq., thinks you may like to use them in THE GARDEN. The Gunnera is 70 feet in circumference and 10 feet in height, its individual leaves being 8 feet in diameter. I make a point of cutting out the flower-spikes each spring, pointing in some bone-meal and giving it a good dressing of well-rotted manure just as the growth commences. The only protection the plant receives in winter is its own foliage laid over the crown. Hydrangea Hortensia is grown in tubs for use as dot plants on the lawns. The photograph shows a specimen plant 21 feet in circumference and bearing over 170 bunches of bloom. I am standing by the plant to show its size. As we grow a dozen of these plants, I find storing them in a frost-proof stable very convenient, and in spring I give them a good dressing of bone-meal and prune to good buds each year. Then I stand them out in a sheltered place, taking care to give protection from frost with light tiffany until the weather is suitable for outdoor culture.

GEORGE GUMBRELL (Head-gardener).

Rose Mount Gardens, Ascot, Berks.

SUTTON'S DOUBLE CLARKIA FIREFLY

COLOURED PLATE.

PLATE 1408.

CLARKIAS AS GREENHOUSE PLANTS.

THE Clarkia family, botanically, is a small one, the beautiful varieties which we know and grow to-day having been evolved chiefly, if not entirely, from the two species C. elegans and C. pulchella. They are of annual duration only and natives of California and Western North America, their habitats serving to show the likes or preferences of the plants so far as these can be determined by this alone. In this particular instance the native environment of the subjects is indicative of their warmth-loving nature, and is at once a guide to the student of such things and to the gardener also. On the other hand, the amateur who is also a beginner may seriously err in the early attempts to grow the plants to perfection, because of an imperfect knowledge of the essentials which go to make success complete. For example, to plant the Clarkias in any out-of-the-way corner because they are annuals easily raised from seeds, and, therefore, adapted for filling up any vacant spot in the flower border or shrubbery in sun or shade, is not the way to make the most of these delightful plants nor to see their sun and warmth-loving flowers to perfection. Hence at the outset a knowledge of their essential requirements is of some importance.

In all but wet and clayey soils the Clarkias are among the hardiest of what are known as hardy annuals, serviceable alike for autumn and spring sowing. Like most annuals of free growth, the plants delight in good and deep, yet not excessively rich, soils, which would result in a rank growth and, possibly, an indifferent flowering. For open-air cultivation the seeds may be sown in September or early in April, or the plants may be grown in pots, in certain instances, for planting out in the open so as to afford an earlier flowering. In beds alone the Clarkias, where given a free hand, are quite unique because of their elegance. In the salmon and pink, as also the flaked varieties, it is impossible adequately to describe the beauty of their flowers or the long and graceful sprays on which they are produced.

Apart, however, from their merit in the open air, they possess a value of their own when grown in pots, a fact amply demonstrated at the Temple Show in May last, when Messrs. Sutton and Sons of Reading arranged a perfectly unique bank of these in pots, that most brilliantly flowered scarlet-crimson variety, Sutton's Firefly, being one of the most conspicuous. Firefly belongs to the C. elegans class, distinguished by the undivided petals of the flowers as compared to the deeply cut petals of those of the C. pulchella set; and I are not urging the merits of the first-named set inordinately when I say that no garden should be without the best varieties procurable. As a highly coloured variety Firefly is probably the most brilliant Clarkia obtainable at present.

In the exhibit to which I have already directed attention Messrs. Sutton demonstrated that as pot plants the Clarkias are of the highest possible value, the plants endowed with a refined beauty and charm unknown in the garden. The exhibit, indeed, was a revelation, and because of it the popularity of the Clarkia is destined to be increased a hundredfold. To those who know these things as garden annuals of 18 inches or 24 inches high, it will come as a surprise to know that by means of pot cultivation the plants may be grown to fully twice that height and of a similar size across. Hence for cool conservatory decoration the plants will be a great gain.

As companion plants to Firefly there are double salmon-coloured varieties and others of delicate pink, all of the elegans variety. In the pulchella class there are rose and white and other shades, while the compacta or dwarf set, known also as Tom Thumb, contains quite a variety of shades. For pot culture the seeds of Clarkia should be sown early in September, the young plants to have the point removed when about 3 inches high, and again when about 10 inches or 12 inches high. Most important of all, perhaps, is that the plants be grown hardily and slowly throughout, since, while appreciating cold house protection, they are singularly sensitive to, and impatient of, artificial heat, which should only be applied in case of excessive or long-continued frosts. The coloured plate presented with this issue has been prepared from a colour photograph. E. H. JENKINS.

THE ROSE GARDEN.

NEW ROSES OF THE YEAR.

(*Continued from page* 426.)

JUDGING by letters received, my notes on these new Roses are of considerable interest to readers. Next week I hope to give a long instalment, so that the particulars may be of service to intending planters.

GUNNERA MANICATA IN ROSE MOUNT GARDENS, ASCOT.

At the Salisbury Show the four following varieties also received gold medals:

Mabel Drew, a Hybrid Tea shown by Messrs. A. Dickson and Sons. This is a splendid Rose, which, when I saw it at the Temple Show, I thought favoured an old variety, Souvenir d'Elise Vardon, but on this occasion there was quite a primrose yellow shade. It is a fine flower of lovely form, and will be invaluable to the exhibitor, and doubtless for decoration.

Mrs. Cornwallis West, a Hybrid Tea shown by Messrs. A. Dickson and Sons. This is a very double Rose, grand as shown, and in a hot season it must be magnificent and a great stayer. Colour ivory white, tinted blush pink, with reflexed petals. It is very fragrant, a feature that is too often absent in otherwise excellent new Roses during recent years.

Mrs. Amy Hammond, a Hybrid Tea shown by Messrs. S. McGredy and Son. Colour ivory white, shaded pink and apricot, somewhat of La France form, with similar reflexed edges to the petals. It has a deliciously sweet fragrance, and may be regarded as a very fine addition to this section.

Mrs. Arthur E. E. Coxhead, a Hybrid Tea shown by Messrs. S. McGredy and Son. These raisers are particularly fortunate in their rich-coloured novelties, and have evidently a fine strain, of which His Majesty, Edward Mawley, Leslie Holland and Mrs. Arthur E. E. Coxhead are good examples. In this latter Rose we have some resemblance in colour to a bright young flower of Marquise Litta, but the brightness remains instead of changing to a magenta tint. The bloom is full, very long and pointed, with great depth and substance of petal. A great feature of this Rose is that every flower is borne erect, making it not only a grand Rose for the exhibitior, but for the garden also. I think the time will soon arrive when all Roses that are fit for exhibition only will be banished, for raisers are proving that it is possible to produce varieties as fit both for the show bench as for the garden, and if, as in this Rose, they possess rich fragrance, they will be all the more valuable. P.

(*To be continued.*)

ROSE MME. RENE COLLETTE.

THIS is a charming new Rose, something in the way of Clara Watson, but with a delightful shade of delicate pink. The growth is vigorous and the flowers are borne in profusion. There is not much form about the Rose, but its colouring and outer petals, pointed as in Clara Watson, will make it a favourite when better known. P.

GARDENING FOR BEGINNERS.

HOW TO PRUNE THE LOGANBERRY.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Violets are always greatly appreciated during the winter and spring months. If the plants are left growing in the open borders, the cultivator cannot rely upon having flowers regularly, as severe frosts check the growth of the buds. In frames the cultivator has more control of the plants, and he can shield them from bad weather at will. Although the Violet is a hardy plant, frame culture is certainly advisable from September to April. The present is a good time to plant the clumps in the frames. Those plants that have had all runners cut off from time to time are the best, as their crowns are firm and plump, and such will produce many flower-buds. If there are old hot-beds in the frames, they may be left (not doing anything to them except making the surface level) and some good compost about 1 foot deep placed on. If new hot-beds are built up, make the material very firm and quite as high as the glass lights, as it will sink down very much. The surface of the soil when settled should be about 15 inches from the glass. Lift the clumps of Violets carefully, and plant them 15 inches and 12 inches apart respectively in the case of large and small leaved varieties. Make the soil firm around the roots, give water, put on the lights, almost closing them, and shade lightly for a few days; then gradually admit more air and light, finally exposing the plants fully on fine days. Transplant seedlings of herbaceous and spring-flowering plants in boxes and nursery beds. If large blooms are required on border Chrysanthemum plants, do some disbudding every day. Continue to pick off fading leaves from all outdoor plants at this season.

Vegetable Garden.—The harvesting of Onions will be important work during this month. The best bulbs, many of which will split if left too long in the ground while the weather is unsettled, must be gathered first. Choose a dry day, and with the aid of a garden fork gently loosen the roots in the soil by carefully lifting both bulbs and soil along the rows; then take a firm hold of the bulbs—not the tops—and pull them up. Lay them in shallow baskets or boxes and straightway convey them to mats spread out in open sheds. When they have been duly turned over several times and properly dried, the bulbs will be fit to store for the winter. Keep the roots of Tomato plants dry at this season—the plants have had sufficient moisture—spread out littery material on the soil over the roots, and cut away a portion of the large leaves if the latter are numerous, also pinch out all side shoots while they are quite small. Tie up late Lettuces while the central leaves are perfectly dry, and transplant young Cabbages and Lettuces.

Fruit Garden.—The cultivator who has deeply dug or trenched ground in readiness for the planting of Strawberries must now get the rooted runners planted as soon as possible. Where convenient, arrange to plant so that the rows will be direct north and south. When so planted the sun's rays reach both sides of the row and, consequently, the ripening fruits become dry on both sides early in the day, so that when gathered there is not much risk of damp fruits being mixed with dry ones in the basket. The rows should be about 2 feet apart and the plants in them 16 inches. Do not bury the crowns, but make the soil firm around the roots, and then put on a nice mulch of half-rotted manure. Wasps are now getting very troublesome, and choice fruits must be netted; but directly the fruits are gathered, all netting and other material must be removed so as not to obstruct light and air.

1.—THE SHOOT ON THE LEFT IS A PORTION OF A ROD MADE THIS YEAR, AND OUGHT TO BE RETAINED. THAT ON THE RIGHT REPRESENTS PART OF AN OLD SHOOT THAT BORE FRUIT THIS YEAR, AND ALL WOOD OF THIS DESCRIPTION SHOULD BE CUT AWAY.

Greenhouse and Frames.—A cool frame is the best place for rooted cuttings of bedding Zonal Pelargoniums; but if such a structure cannot be spared, place the young plants on sunny shelves close to the roof glass in the greenhouse. Greenhouses are sometimes used for the growing of Tomatoes. Where the latter are getting exhausted, clear them away and bring in Zonal Pelargoniums for winter flowering. Old specimens may be cut back, well feeding after the new shoots commence to grow. Top-dress and feed Liliums in pots; then the later flowers will open more kindly. Gladiolus The Bride, Freesias and Roman Hyacinths must be placed in the cold frame when first removed from the bed of ashes and very gradually exposed to the full light. The earliest batches will be very acceptable.

A. A.

HOW TO PRUNE THE LOGANBERRY.

THIS fruit, though of comparatively recent introduction, has become so popular that it is now found in many gardens throughout the country. It is essentially a fruit for the amateur or beginner, because it will thrive in almost any locality and in nearly all situations, and as it is such a free cropper, a large quantity of fruit can be obtained from a small area. From the plant, a portion of which is illustrated, the writer this year gathered at least three quarts of fruit. This, though not of first-class quality, is excellent for tarts and also for preserving as jam, the flavour when used for either purpose very much resembling that of our native Blackberry, though it is more acid. For dessert it is too sour for most tastes, though this is usually put down as characteristic of the Loganberry owing to the fruits being gathered when bright red. At that stage they are not ready for dessert; they should be left until they change to a blackish purple hue somewhat resembling the Mulberry, when much of their acidity will have departed. As a rapid-growing climber for clothing arches or for training to trellis fences the Loganberry is very useful indeed. It is true that it loses its leaves during the winter, but it is one of the first hard-wooded plants to produce new ones in spring, and they are quickly followed by myriads of pretty white, star-like flowers, which, unfortunately, are very fugacious.

Concerning the actual culture of this hardy fruit there is not a lot to be said. It has already been noted that it is not at all particular regarding soil or situation, but it is a gross feeder, and for that reason should be given rich soil and be fed at moderately frequent intervals with weak liquid manure during the growing season, the object being to obtain sturdy new rods as well as to assist the plant to perfect its crop of fruit. The chief object of this article, however, is to give instruction regarding the pruning of this climber, work that if not already done should be attended to without further delay. The Loganberry, like its near ally the Raspberry, produces its fruit entirely on the long stems formed during the preceding year; thus the crop of fruit next summer will be found on those shoots which have emanated from the base of the plant this season. In Fig. 1 examples of old and young shoots are illustrated. On the left we see the young shoot, which is simply clothed with leaves, and it will be easily seen that it differs considerably from the old shoot on the right. This latter has small lateral branches, and remains of the fruit crop are plainly visible.

Now, to secure sturdy young shoots is not in itself sufficient to warrant a good crop of fruit next year; it is of considerable importance that such shoots become well ripened, and for this reason it is advisable to cut out all the old growths as early as possible after the fruit has been gathered. They

should be cut out as close to the ground as possible. After this the young shoots ought to be loosely tied up, so that they are not damaged by wind; but it is not necessary or altogether desirable to tie them tightly in where they are intended to remain and fruit next summer. If tied in tightly, sun and air cannot so easily reach the stems on all sides, and though this may be an unimportant detail in fine, warm autumns, it means a lot in such weather as was experienced last year. In Fig. 2 a portion of a plant is shown after all the old wood has been cut away and the young growths loosely tied in as advised. It will be noticed that each has plenty of room and is fully exposed. Any shortening of the young shoots that may be necessary to keep them within bounds should be done in spring just before the buds burst. The newer Lowberry and Phenomenal should both be treated in the same way. H. W.

SALVIAS.

THESE are useful plants for the greenhouse and conservatory in the autumn and winter months. As the flowers develop they are apt to fall off wholesale if the plants are subjected to draughts or suddenly changed from a warm to a cool temperature. It is well to have a late batch of plants for use where these are employed as decorative subjects in the dwelling-house and in cool conservatories. Comparatively small but bushy specimens at this season are valuable, and all such should be finally potted. It is not necessary to transfer them to very large pots; those 1½ inches to 2 inches larger than the ones the plants are now growing in will be quite suitable. The soil must not be too heavy and retentive of moisture nor too light—fibrous loam two parts, leaf-soil one part, rotted cow-manure, old mortar rubble and sand one part. Firm potting is advisable if the soil is really of a light nature, and not very firm if it is heavy. If the potting is well done and the plants judiciously fed in due course afterwards, they will grow into fine specimens. Immediately the nights become chilly the plants must be removed from the frames to the warm greenhouse and carefully ventilated.

GRAPES.

BERRIES SCALDING.

THE berries of Grapes are scalded through the sun shining on them while they are covered with moisture. Grapes in cool houses are late this year, and during bright bursts of sunny weather many berries will be scalded, I am afraid, unless due precautions are taken. Although strong sunshine scalds the berries, fewer are damaged in this way during a bright, sunny summer than a comparatively dull one. I will explain. When the nights are cold and the days somewhat sunless, owing to the cool atmosphere the moisture condenses on the berries during the night, and also in the daytime if the ventilators are not opened. If the sun should suddenly shine upon them while in the condition described, the moisture is heated before it is dispersed, and then the berries most exposed are scalded. When the summer is a warm one—warm at night and sunny in the daytime—less scalding takes place, because there is not as much condensation of moisture on the berries; the skins are harder and less liable to be damaged. The best course to take now is to open the top ventilators 1 inch at ten o'clock each night, and to open them a little wider before the sun shines on them the next morning. In this way all moisture that may have settled on the berries will be dispersed before the sun reaches them, and so they are practically safe from damage. It would be a great mistake to shut up the house at night and not ventilate the following morning until, say, eight o'clock. When the berries commence to colour they are practically safe from scalding, but ventilation then is equally essential. Some varieties, of course, scald more readily than others, namely, Lady Downe's, Madresfield Court, Muscat of Alexandria and Gros Maroc. AVON.

CHRISTMAS ROSES.

PERHAPS some inexperienced cultivators may think that any reference to these plants, from a cultural point, now is quite unseasonable. Well, we will see. In the first place, I would say that it is owing to neglect of the plants at this time that many of them fail to produce good flowers in due season. The plants are now commencing to harden their stems and leaves, and the flower-buds are forming, so we should give them help in the form of a nice surface mulch of well-rotted manure and doses of weak liquid manure. So treated the flower-buds will be strengthened, and also the roots. Then in due time some temporary protection should be afforded the plants if frames cannot be spared, so as to preserve the blossoms from frosts, insect pests and discoloration. Of course, the material used for protection must only be got ready at this season, so that it can be fixed quickly the moment it is required. While the weather is open the plants, being hardy, must be fully exposed.

THINNING-OUT RASPBERRY CANES.

I WONDER how many inexperienced cultivators feel that they would be doing right by cutting out Raspberry canes while the latter were fully clothed with fairly green, fresh leaves. Not only beginners, but others of much experience, defer the thinning out of the surplus canes until the winter—often the spring—time. All the canes or plants grow separately above the soil surface, so that the removal of one does not adversely affect the other, but, on the contrary, is beneficial to the one left. So why should the old canes be left to adversely affect those that are retained to bear fruits next year? The best fruit is obtained from well-ripened wood and buds; and in order to secure such desirable wood it must be much exposed to air, light and sunshine. It will be easily realised by readers how wrong it is to allow the old surplus wood—canes—to remain and obstruct the sun's rays, light and air at the present time. Immediately the fruit is gathered we ought to begin to cut out the old canes and the weakly young ones. Do this work carefully, so as not to tear off the leaves from the canes left to bear the next crop of Raspberries. SHAMROCK.

THE TOWN GARDEN.

THE MADONNA LILY.—The hardy plant garden in July contains nothing more precious than Lilium candidum, so well-known and popularised as the Madonna Lily, and a seasonable reminder that it should now be planted, if this is not already done, will not be out of place. Neglect of planting at the right time is often responsible for many failures that might be avoided, hence the importance of the operation is once more emphasised. The plant is cheap by the dozen or hundred, and a garden is poor indeed which does not contain a few bold masses of a subject so unique. The amateur or beginner in gardening, seeing that the plant is available in nearly all bulb shops to the end of the year and even later, might not unnaturally enquire as to the need for planting it in August or September. The answer is that the Madonna Lily is by nature virtually an evergreen, and such plants cannot be long kept out of the earth with impunity. In the case of this species the deterioration that follows a long season of enforced rest is evidenced by loss of stature and

2.—PART OF A LOGANBERRY PLANT AFTER PRUNING HAS BEEN DONE. NOTE THAT THE YOUNG RODS ARE LOOSELY TIED IN POSITION.

fewer flowers; it may be, indeed, entirely responsible for the non-flowering of the plants.

FALLACIES CONCERNING BULBS.—A fallacy concerning bulbous plants that should have been broken down years ago—indeed, it never should have existed—is that so long as the bulbs remain apparently sound so long may they be planted with impunity. In gardening no greater mistake could be made. To reduce a bulbous plant to the lowest vitality, and expect that it will perform its ordinary functions of growth and flowering as though nothing had happened, is to expect that which is impossible. An Emperor Daffodil, for example, planted early in August may reward its owner with a flower-scape or stem of 2 feet or more in height, while a December-planted bulb of equal size and weight in the first-named month may have to struggle hard to produce a flower-scape of a third the height I have named. Need one say more than this? Unfortunately, for the success of certain things the amateur is not wholly to blame, and upon occasion gardeners of repute have erred equally in these matters. A score or more years ago an extensive Daffodil farmer-cultivator and the writer were conversing upon the favourite flowers, when, among others, Narcissus poeticus ornatus was mentioned. "As to ornatus," said the farmer-cultivator, "I consider that five minutes out of the ground is about four minutes too long," which was but another way of saying that it should never be lifted at all.

NECESSARY EVILS.—Yet we see this popular variety of Narcissus lifted and dried each year by the million, someone may say. Exactly; lifting and the subsequent drying of Daffodils for commercial purposes is one of the necessary evils to which we have become accustomed. At the same time, neither the lifting nor the drying, much less an *ad libitum* extension or expansion of the same, should be interpreted as beneficial to the subject, but the reverse. If, therefore, amateurs would regard the dry bulb state as a necessary evil, a sort of convenience or go-between the seller and purchaser, and consider it an essential to obtain supplies early and plant them at once, not half the failures that are now recorded would ever be heard of. In short, the whole subject of planting should be considered from the rational standpoint, and, provided the bulbs be sound and good, all will be well.

PROPAGATION OF BEDDING PLANTS.—The ingathering days of earliest autumn will serve as a reminder to many that the work of propagating stock for next year's bedding should not now be longer delayed. In certain instances the work has already been started; in others, where a later flowering of the subjects is appreciated, there is ample time. Cuttings of the Zonal Pelargoniums may be inserted in sandy soil in boxes or pots, free drainage being given in each case. Lobelia plants, if pruned close back at once, will break afresh in a week or two, and may then be lifted, pulled to pieces and inserted in shallow boxes, placing the latter in a cold frame to give them a start.

E. H. JENKINS.

THE EDITOR'S TABLE.

WILD FLOWERS FROM THE NEW FOREST.

Mrs. E. P. Mack, Cranmore House, Lyndhurst, Hants, sends us flowers from the New Forest of the Bog Pimpernel (Anagallis tenella) and the Lesser Dodder (Cuscuta Epithynum), one of the few British parasitic plants the slender stems of which are not very conspicuous when devoid of the small flowers. Mrs. Mack writes: "I am sending some flowers from the New Forest which may be of interest for the Editor's Table—Bog Pimpernel and the Lesser Dodder, which is parasitic on Gorse, Heather, &c."

A GOOD CROP OF PLUMS.

Mr. R. J. G. Read, Ealing, sends a fruiting branch of Plums which in this year of scarcity is pleasant to behold. The variety is evidently a seedling of no special merit except that it crops well, an important point in years such as this. Mr. Read writes: "I send for your table a spray of a Plum tree showing the abundance of fruit produced this season. The tree was covered like this, but about half had to be picked off to prevent the boughs breaking. It is a common Plum, but is good for cooking and makes excellent jam, and comes in very useful when one has a large family to provide for. I have several trees, which were merely suckers dug up in the garden and replanted, but they bear heavily every year whether the season is good or bad, and when many of the tender high-class varieties produce scarcely any fruits. I may say that I have had very good crops of Plums this season—Rivers' Early Prolific, Old Orleans, Jefferson, Diamond, and Farleigh Damson; in fact, the crop is more satisfactory than last year, when the trees were broken down with the load of fruit."

SCENTED-LEAVED PELARGONIUM FROM SALISBURY.

From the Rev. W. F. Short, Donhead St. Mary, Salisbury, we have received sprays of a scented-leaved Pelargonium with very pretty bright-coloured blossoms. It is sent to combat an idea that scented leaves and effective flowers do not go together. The specimen sent is very much like, if not actually identical with, one grown at Kew as Pelargonium altum. The flowers are not large, but abundantly borne, their colour being rich scarlet, veined in the upper segments with blackish crimson. Just now at Kew two members of the Unique group, with scented leaves, are very showy. They are scarlet Unique and Mrs. Kingsbury, with bright carmine-coloured flowers. Although scented-leaved Pelargoniums are at the present day more often met with in old-fashioned gardens than in any others, we venture to think that if taken seriously in hand by some of our nurserymen they would again experience an era of popularity. This is partially substantiated by the interest shown in a fine collection that was exhibited from Aldenham Gardens at the last Holland Park Show. One caution to be observed by would-be purchasers of these pretty plants is that the nomenclature is in a very confused state; hence the best advice is to select the plants yourself.

NEW PLANTS.

ROYAL HORTICULTURAL SOCIETY.—AUGUST 30.

CATTLEYA RHODA FAIRLAWN VARIETY (C. Iris × C. hardyana).—This handsome variety has the sepals of a brick red colour, the petals being of a dull rosy purple. The widely spreading lip is of maroon-crimson shade near the margin, paler as the centre is approached, the throat being pencilled or faintly lined with gold. Exhibited by H. S. Goodson, Esq., Fairlawn, Putney. First-class certificate.

Cattleya Adula Vale Bridge variety.—In this variety the sepals and petals are of rosy hue, the lip being of a rich crimson-carmine shade. Exhibited by Mr. E. V. Low, Haywards Heath.

Cattleya hardyana Holford's variety (C. Warscewiczii × C. aurea).—A showy and beautiful variety having rich rosy purple sepals, the crimson-maroon lip lined and veined with yellow, and heavily tasselled or waved at the margin. Shown by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Gloucester.

Lælio-Cattleya Golden Oriole var. trigina (L.-C. Charlesworthii × C. aurea).—Sepals and petals an orange red shade, the lip marked with crimson at the margin, and reticulated with gold near the throat. A distinct and beautiful variety. Exhibited by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Gloucester.

Buddleia variabilis gigantea.—The varietal name is descriptive of one of the finest varieties we have seen, the handsome spikes of flowers being of large size. The flowers are of pale and deep heliotrope shade according to age. Exhibited by the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett).

Gladiolus Safrano.—A pale yellow-flowered variety, the petals having a waved or frilled margin, and stained with crimson in the throat. The spike is good and compact, the flowers moderately large. From M. Vilmorin, Paris.

Gladiolus Le Luna.—This is one of the nanceanus hybrids or forms, the flowers of a deep cream tone, heavily blotched with crimson in the lower petals, and flushed with rose in the upper petals. From Messrs. Barr and Sons, Covent Garden. These had been on trial at Wisley, and came before the committee for the confirmation of the awards made.

Dahlia Leander (Single).—A well-rounded flower, coloured maroon and crimson in irregular stripes and flakes. From Messrs. J. Cheal and Sons, Crawley.

Dahlia Guinevere (Pompon).—A compact and prettily shaped variety, of rose shade merging into salmony orange, the bases of the florets assuming a buff yellow tone.

Dahlia Theresa (Cactus).—The shapely flowers are of cream white, flushed with delicate lilac or blush. These two came from Mr. Charles Turner, Slough.

Dahlia Mrs. Douglas Fleming (Cactus).—A handsome variety of good exhibition standard, the long pointed, incurving florets of a creamy white tone.

Dahlia Crystal (Cactus).—This attractive variety is of rose pink colouring, the rather long white tips to the florets rendering a good flower all the more conspicuous. Both these came from Messrs. Stredwick and Son, St. Leonards.

Dahlia Garden Yellow (Cactus).—The colour is a good yellow shade in a variety of much merit. Exhibited by Mr. H. Shoesmith, Woking.

Lobelia Sam Barlow.—This is one of the most beautiful of the hybrids which have resulted from the intercrossing of L. fulgens, L. cardinalis and their progeny, the stem, leaf-growth and colour being intermediate between the species named. The flowers are coloured a rich rose, which is most attractive. From Messrs. Barr and Sons, Covent Garden.

Phlox Elizabeth Campbell.—A refined and beautiful variety of herbaceous Phlox. The colour is pale salmon at the edge, the centre of the flower being flushed and starred with white. It is most distinct. Exhibited by Messrs. William Wells and Co., Limited, Merstham.

Rose Daphne.—A distinct and pretty Polyantha variety said to flower from June to autumn. A card bore the inscription that it is "perpetual-flowering" and "mildew-proof"—great attributes these, if fulfilled, in any garden flower. The blossoms are of a pretty pink and white shade. Exhibited by the Rev. J. H. Pemberton, Havering-atte-Bower.

Each of the foregoing received an award of merit.

NEW FRUIT.

Melon Golden Beauty.—A very thin golden-skinned, red-fleshed variety of excellent quality, the fine flesh being eatable close down to the rind. It is prettily but not heavily netted. Shown by

ssrs. Barr and Sons, King Street, Covent Garden.
ard of merit.

NEW TOMATOES.

At a meeting of the fruit and vegetable committee
d at the Wisley Gardens of the Royal Horti-
tural Society on August 11, certain varieties
Tomatoes grown in pots under glass were seen,
l three marks were awarded to three of the best,
h the understanding that when named awards
nerit be proposed for them. Fruits of the varie-
were shown at the meeting of the committee
Vincent Square on August 16. They were all
a fine, handsome, round form and of deep red
our. In growth the plants somewhat differed,
ugh but slightly. Names were supplied by
raiser, Mr. Balch, The Nursery, Govan, N.B.,
se being respectively Ailsa Craig, Carick and
rshire. Awards of merit were then agreed to.
s very unusual to make three such awards to
kind of fruit or vegetable at once to the same
son. When the original awards of three marks
e made the committee did not know by whom
varieties were sent.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

uestions and Answers.—*The Editor intends to*
e THE GARDEN *helpful to all readers who desire assist-*
, no matter what the branch of gardening may be, and
that object will make a special feature of the "Answers
orrespondents" columns. All communications should be
rly and concisely written on one side of the paper only,
addressed to the EDITOR *of* THE GARDEN, *20, Tavistock*
et, Covent Garden, London, W.C. Letters on business
ld be sent to the PUBLISHER. *The name and address*
he sender are required in addition to any designation he
desire to be used in the paper. When more than one
y is sent, each should be on a separate piece of paper.
nts for naming should be clearly numbered and securely
ced in damp grass or moss, not cotton-wool, and flowering
ts, where possible, should be sent. It is useless to send
ll scraps that are not characteristic of the plant.

FLOWER GARDEN.

Lilies failing (*N.*).—It is difficult without
er details to say just why these particular Lilies
e failed this year. It would seem that they
e had excessive wet this season coupled with
and if in addition to this they have also had
l nights (as we did in May) and cold, driving
ds, it would in all probability be the start of
disease. One often finds that Lilies are planted
situations not at all suitable. They nearly all
best when treated as woodland plants, in such
f-shady situations screened from wind and hot
and also protected when most liable to attack
May from late frost) by the surroundings of
s and shrubs, and planted in a soil composed
he main of leaf-soil, peat and sand, with ample
inage below. In such positions as these Lilies
ease and multiply; for instance, at Wisley and
Sir. H. Graves's garden at Hillingdon, Uxbridge.
chaledonicum certainly does better in dry
sons than wet ones, enjoying as a rule similar
ations to candidum and croceum. Without more
ticulars we cannot say just why they have failed.
eems a general failing all round, and therefore
would think the soil or situation had something
lo with it as well as climate. As regards the
bs, we expect on examination they will be found
have decreased in size, as the foliage going off
ore the flower had expanded means that the growing season is shortened, and therefore next year's bulbs must be small. If the garden is naturally a wet, foggy one, it would be as well to see in the future that more than the normal amount of drainage be given.

Carnation naming (*H. O. P.*).—In colour the seedling is not unlike Mrs. Reynolds Hole, but it is not that variety, though it may possibly be a seedling from it. In point of size it is far below the standard of present-day Carnations, though for home use and decoration it might be of more value than some of the newer sorts.

Mallows dying (*E. A. H.*).—The plants have been attacked by a fungus at the base, and the tissues are quite dead at this point. A dusting of air-slaked lime about the soil, first pricking it over lightly, may assist to modify the attacks or, rather, keep the fungus at bay, as once a plant is smitten its tissues are ruined beyond all hope of recovery. You should burn all the affected plants, not put them in the rubbish-heap.

Romneya leaves diseased (*H.*).—The leaves and flowers of your Romneya are attacked by one of the several leaf spot fungi, which play havoc with several classes of plants. It is a moot point whether the fungus attacks perfectly healthy foliage or whether some injury, such as bruises from hailstones, enables the spores of the fungus to enter into the tissue of the leaves. The worst leaves should be picked off and burnt and the plants sprayed with one of the several fungicides now in use, such as the Bordeaux mixture.

Carnations going off (*J. C. Harvey*).—The plant sent had been bored right up the central part of the stem by a grub, which, however, was not present; hence its sudden collapse. It is possible the soil is grub or wireworm infested, and a dressing of soot and lime in winter may be of assistance. The wireworm is of a pale brown colour and about 1 inch long. The boring in the plant sent, however, was too large for this pest. At the same time it would be well to ascertain whether there are wireworms present in the soil or not, as this is, without doubt, the worst of the insect pests from which the Carnation suffers.

Gentiana verna from seed (*M. L. W. Whitehead*). Sow the seeds at once in a mixture of sandy loam and peat, first rendering the soil quite fine by rubbing it through a sieve having a quarter-inch mesh or even less. The soil for covering should be as fine as possible. You should employ well-drained pans or pots, make the soil moderately firm and level, and fill the receptacle to within three-quarters of an inch of the rim. At this level coat the soil with fine sand, and on this sand surface thinly sow the seeds. The latter should be covered not deeper than one eighth of an inch with fine soil, finally placing a sheet of glass over the pot or pan, which should be placed in a position of shelter not much exposed to the sun. Seeds of good quality will vegetate in the spring of 1911, the seedlings freely grown taking about three years to reach the flowering stage. If you prepare the seed-pan in advance and give the soil a thorough watering a day or so before sowing the seeds, it will prove helpful.

TREES AND SHRUBS.

Aucubas in ill-health (*E. C. Wells*).—There is little doubt that the cause of the ill-health of your Aucubas is the fact that they have been starved by the roots of the trees in your plantation. At the same time, Aucubas, in common with many other evergreens, lose a considerable number of their old leaves at this season of the year. We advise you, if possible, to take out a trench between the trees of the plantation and the Aucubas. In doing this all roots of the trees that are robbing the Aucubas may be cut off and the soil again returned. If you do not wish to cut a trench, the plants will be greatly benefited by lightly breaking up the surface of the ground with a fork and top-dressing with manure. This must be well watered in and care taken to give the roots a good soaking about once a fortnight during the summer. If this advice is followed, we feel sure that you will quickly find a great improvement in the health of your Aucubas. Some two or three years since we were consulted in a parallel case to yours, and as the use of manure was objectionable as a top-dressing, an occasional application of guano was given and the shrubs watered freely. This soon effected a change for the better, and the same treatment having been followed each summer, the plants are now in robust health.

Treatment of a Wistaria (*K.*). — All that you can do for your Wistaria is to fork the ground up lightly round about, so that air can enter the soil, and give it a thorough good watering, for in the position you describe it is probably suffering from drought. Stop giving liquid manure or other stimulants; the plant is not in a suitable condition for extra food, and manure at this stage will act as a poison. The same thing applies to your Clematis; it is probably suffering from drought. A little lime next spring will probably do the Clematis good. If you gave good loam and well worked the ground at planting-time, no forcing manure will be necessary for some years to come.

Information about Japanese Maples (*C. E. J.*). It is possible to obtain good plants of any of the Japanese Maples from the leading nurserymen. Messrs. Cripps and Co., Tunbridge Wells, make a speciality of them, while Messrs. Veitch of Chelsea, Messrs, Fisher, Son and Sibray of Handsworth, Sheffield, and other people hold good stocks. The best time of year to cut back Guelder Rose and Lilac bushes is early May, or, if you wish to obtain what flowers are possible, defer the cutting back until the flowers are over. Thin out any weak wood at the time of pruning.

Pruning Jessamine (*G. M. Sandaes*).—Your white Jessamine ought to be pruned in early spring, say, March. Thin the branches out well and cut the remainder moderately well back. As a rule, this plant blooms more freely the older it gets, and comparatively young plants sometimes fail to produce a satisfactory display of bloom. Where plenty of room can be allowed, say, on an old rough wall or over a bush, it may be left quite unpruned, when a greater amount of blossom is often obtained. It is, however, usually out of the question to allow a plant to grow unpruned on a house.

ROSE GARDEN.

Treatment of Rose Carmine Pillar (*L. Giles*).—The two fine plants by your front door need no pruning this season. Just allow them to grow as they will, and about the end of the month pinch out the points of any young shoots to assist them to harden. In March you can shorten back the lateral growths to within 3 inches to 6 inches of their base, but the long growths, if they pass through the winter all right, need no shortening beyond a few inches of their extreme ends. Sometimes the old growths of this Rose suffer badly in winter and turn quite a coffee colour. When this is so, they should be cut clean out in March. Strangely, the young rods escape uninjured. The pegged-down growths of your J. B. Clark should be reduced in number by cutting one or two away next spring, and the lateral growths of those retained cut back hard. Any basal growths that appear should be pegged as soon as long enough, but any that are soft and pithy in March should be cut away.

Pruning Penzance Briars (*H. H.*). — It would not be wise to give the hedge a severe pruning now, for you would encourage a soft growth from the base, which would fare badly during the winter. The best plan would be to cut away some of the growths right to their base in February, and then tie over the remaining growths, some to the right and some to the left, bringing them to about 2 feet from the ground. When the basal eyes are well advanced into growth the tied-over branches may be released if desired, although we would advise their retention in this position. The Dawson Rose should have some of the old wood and only the well ripened of the young growths preserved. Cut out in autumn any soft, sappy growths. In spring cut back hard any laterals on the old wood. In September pinch out the points of any young growths. We do not think your Dorothy Perkins are exhausted; rather is it a case of unripened wood following last year's sunless summer.

Mildew on Roses (*East Anglia*).—This has been very prevalent lately. We do not remember seeing it worse for many years. Spraying with Jeyes's Cyllin Soft Soap is an excellent remedy, only it should be applied as soon as a few spots are seen and continued through the growing season. Use it at the rate of 1oz. to a gallon of water and apply with a fine sprayer about twice a week. The worst parts should be cut off and burnt at once. Remove in November surface soil for about half an inch and burn it, then give ashes to the soil again. Your soil may be too light. Try treading it well about the plants in October, and another summer mulch the surface with very rotten manure. Ramblers often have mildew owing to the want of

a good watering now and then. When applied it should be a good soaking, and then mulch the soil afterwards, or, better still, mulch before watering.

THE GREENHOUSE.

Information about Phyllocacti (*F. R. M.*). The Phyllocacti of the class you mention will do well in a greenhouse in London provided they are quite safe from frost during the winter. One essential point to remember is that they are sun-loving plants, and in order to flower them well they must, especially during the latter part of the summer and in early autumn, have all the sunshine and air possible. If the plants need repotting, this should be done directly the flowering season is over, a suitable compost being made up of one-half loam and the other half leaf-mould, sand and broken brick rubble in equal portions. In this the plants will root freely, and annual repotting is by no means necessary. When the plants are not repotted, an occasional dose of some stimulant during the growing season will be helpful. Throughout the summer these Cacti may be watered pretty freely, but the supply must be lessened towards the autumn, and during the depth of winter they may be kept almost dry, but not parched. As spring advances more water may be given, increasing the supply as the buds develop. During the flowering period the blossoms last longer if the plants are shaded entirely from the sun.

Azalea flowering in August (*C. F. E.*).—The fact that the flowering of your Azalea has been delayed till thus late in the season would suggest that it has experienced some decided check. We think that very possibly the roots are not in a healthy state, and this is partially borne out by your opinion that the leaves are poorer than they have hitherto been. A good plan will be to pick off all the old flowers, and seed-vessels if any, and turn the plant out of the pot in order to determine the condition of the roots. If carefully done it will not be necessary to interfere with the drainage, and, consequently, if you find the roots healthy, the plant may be replaced in the pot without any check. Should your examination, however, reveal the fact that the roots are in a poor state (and this we expect will be the case), the best thing you can do is to repot the plant. When the loose portions of the ball of earth are removed, it is quite possible that the plant may be put into the same pot without difficulty. However, before using the old pot it should be thoroughly washed both inside and out and allowed to become quite dry. The Azalea must then be potted in a mixture of peat and silver sand, taking especial care that the soil is pressed down firmly and evenly. After this the plant should, if possible, be stood in a shaded part of the greenhouse and watered regularly. An occasional syringing or sprinkling overhead will be beneficial. Do not expose it to full sunshine till the roots have recovered from their removal.

MISCELLANEOUS.

Climbing Roses for cool greenhouse (*Mrs. L.*). Two good varieties, avoiding Niphetos and Maréchal Niel, would be Climbing Cárôline Testout and François Crousse. It will be best for you to procure extra-sized plants grown in 8-inch pots, and if planted in September in the outside border they would be all the better for it.

Cooking Kohl Rabi (*York*).—Our experience of this vegetable is that only selected small early bulbing sorts, such as Earliest White or Earliest Purple, varieties specially selected and recommended for garden culture, should be grown for cooking. Then the bulbs should be cooked while comparatively young, as if allowed to fully mature they become hard and stringy. We have found about an hour's boiling to suffice, the bulbs when cooked having their coats removed before being served to table. They have a flavour dissimilar to that of the ordinary white Turnip; the flesh is more solid, and when properly presented is pleasant eating. Sow in shallow drills 12 inches apart in April. Transplant when the plants are strong enough into rows 2 feet apart in good soil, taking care not to bury the plant stems.

Aralia Sieboldii and Box edgings (*Constant Reader*).—The present is a very good time to take in hand a plant of Aralia Sieboldii that has grown too tall, and which you desire to form roots from the stem and thus obtain a shorter plant. The stem should be treated as for a Carnation layer, only instead of one cut about halfway through the stem, the better plan will be to make two cuts opposite each other, but leaving, of course, on either side a good strip of bark untouched. A small piece of broken crock must be inserted in each of the cuts, in order to prevent them closing up. Then the stem must be surrounded with sphagnum moss, or a flower-pot broken in two and wired in such a position that the pot may be filled with a mixture of sphagnum moss, peat and sand. In doing this the stem will, of course, pass through the hole in the bottom of the pot. The plant is not likely to be sufficiently rooted to be separated from the parent till the spring. In any case, it must not be cut off till the roots can be plainly seen taking possession of the new soil. Aralia Sieboldii forms such a handsome shrub in the Southern part of England that if you were not so far North we should advise you to plant it outside and obtain a fresh one in its place. 2. Box edgings may be trimmed in May when spring frosts are over, and the best time to transplant is early in April, though the month of October is also a good time.

Names of fruit.—*W. de H. Birch.*—36, Hambledon deux Ans; 37, Alfriston; 54, Gold Medal; 55, Maltster; 58, Irish Peach.——*A. L. P.*—Downton Pippin.——*M. Martineau, Warwickshire.*—Apple Mr. Gladstone.

Names of plants.—*J. R.*—Dendrobium fimbriatum var. oculatum.——*Dum Kerl.*—Cichorium Intybus; 1, Morus nigra (Mulberry); 2, please send when in flower. ——*G. B. C.*—1, Campanula latiloba; 2, C. carpatica var. alba; 3, C. persicifolia plena; 4, C. rapunculoides; 5, C. latifolia; 6, Veronica virginica; 7, Astrantia major; 8, Alstrœmaria hæmantha; 9, Spiræa Filipendula flore-pleno.——*H. Down.*—1, Epilobium angustifolium album; 2, Origanum Dictamnus; 3, Medicago orbicularis; 4, Helxine Solierolii.——*Mrs. C. Boles.*—Lathyrus sativus. ——*R. T. B.*—Cestrum elegans.——*M. A.*—Salvia Horminum.

SOCIETIES.

DUNDEE HORTICULTURAL SOCIETY.

THIS society held its annual three days' show on August 25, 26 and 27 on the Magdalen Green, Dundee. It was, so far as the number of entries and the quality of the exhibits were concerned, worthy of the great reputation this show has acquired as one at which plants, cut flowers, vegetables and fruit are to be seen at their best in Scotland. In some points it surpasses the Edinburgh shows, and on this occasion the quality was equal to that of former shows here.

As usual, a great feature of the show was the competition for the challenge cups offered by the Town Council of Dundee for groups of plants. That for gardeners is given for a group of plants on a space 15 feet by 12 feet, and the competition in this class is always very close. This year the great tussle lay between Mr. James Beatts, Binrock, and Mr. James Bethel, The Grange, Monifieth. The struggle was a close one, each competitor having some points superior to the other, but finally the cup was awarded to Mr. Beatts, his group being characterised by the greater finish and taste of the arrangement. Mr. Bethel had also a very fine group, with finer plants, and he is to be congratulated on the excellence of his exhibit. Mr. G. Scott, Seathwood, was third with a good exhibit. In the class for table of greenhouse plants, arranged for effect, Mr. G. Reid, Invertay, was first, and Mr. Bethel second. For six stove or greenhouse plants, Mr. J. Kinnear, Fernbrae, came first. Mr. G. Reid was first for six plants in pots not over 9 inches. Other winners in this class were Mr. T. C. Brown, Mr. G. Scott, Mr. J. Beatts, Mr. R. W. Saunders, Mr. G. Reid, Mr. J. Bethel, Mr. W. Grieve and Mr. R. Birse.

The cut-flower classes were excellent, and the display was exceptionally good for such a season. In the open competition for bouquets, &c., Mr. J. Beatts, Mr. G. Scott, Mr. J. Bethel, Miss M. Pennycook and Mr. G. Reid, Downfield, were first in the respective classes with most tastefully arranged exhibits.

Mr. James Beatts was first for the display of cut flowers in vases. Sweet Peas were splendidly shown, Mr. G. Reid, who has won many prizes, again proving invincible with a fine exhibit of twelve vases. Mr. G. Hendry was second. For twelve trusses of stove or greenhouse plants the winner was Mr. R W Saunders. Roses were very fine, the leading winners in the gardening classes for these being Mr. W. Grieve and Mr. D. Keillor. Mr. D. Halley was first for Carnations, and Mr. G. Scott for herbaceous flowers. Other winners in this section were Mr. G. Scott, Mr. C. Shaw, Mr. J. S. Summers, Mr. J. Beisant, Mr. H. Rutherford, Mr. W. Cook, Mr. G. Reid and Mr. G. Scott. Two classes for Roses, open to nurserymen and florists, brought out beautiful flowers, the prize for twenty-four Hybrid Perpetuals or Hybrid Teas being won by Messrs. D. and W. Croll, and that for the same number of Teas or Noisettes went to the same exhibitors.

The fruit classes, which were very numerous, were well contested, the prize for a collection of six bunches of Grapes going to Mr. James Dixon, Rowallan, Ayrshire. Mr. W. Green, Mylnefield, was second. Mr. G. Scott won for the collection of Apples grown in the open. Mr. Dixon, Mr. Scott, Mr. W. Balfour, Mr. J. Beatts, Mr. R. Kirkwood, Mr. W. Benvie, Mr. T. Butchart, Mr. W. Goodall, Mr. D. A. Milne and a number of others also won first prizes in this section.

Vegetables were a splendid section, Mr. C. Shaw, Boquhan, winning for the collection. Other leading prize-takers were Mr. W. Harper, Mr. W. Cook, Mr. James Beatts, Mr. J. Joss, Mr. W. Benvie, Mr. W. Morrice and Mr. J. Gilmour.

The amateurs' classes were, as a whole, very fine, and the competition keen. In the competition for the Corporation Challenge Cup for six stove and greenhouse plants, Mr. W. Robertson took the trophy with a group of excellent plants, well exhibited. The other pot plant classes were excellent, and the same may be said of those for cut flowers, where Sweet Peas were well shown, Mr. D. M. Kerr winning in this division for these favourite flowers. Mr. W. Goodall was first for five dishes of fruits grown in the open air, and Mr. A. Drummond, Fowlis Wester, was first for the collection of vegetables, 3 feet by 4 feet.

Nurserymen showed well, and a separate tent was occupied with their exhibits. Among these was a splendid exhibit from Messrs. Sutton and Sons, Reading, this being practically a replica of the gold medal one at Shrewsbury Show. Messrs. Storrie and Storrie, Glencarse, sho fine exhibit of fruit trees in pots laden with fruit, t with flowering plants and cut flowers of their spec Messrs. W. P. Laird and Sinclair, Dundee, sent exhibit of plants, cut flowers and florists' work; and G. Paton and Son, Dundee, had cut flowers of bord other plants.

GLASGOW AND WEST OF SCOTLAND H CULTURAL SOCIETY.

THIS society held its annual show in the St. Andrews Glasgow, on August 31 and September 1. The nat the display was such as to show that the love of culture so prevalent in the district has not abated, a addition of about 100 to the number of entries is a w that the society retains the confidence of exhibitors. show was of very high quality, and it was wonde observe how little the inclement weather of the past affected the exhibits, although, as may be anticip the cut flowers showed it more than any other s The very fact that they were so good redounds credit of the successful exhibitors.

Among the best features of the show were the herba plants, always a strong department of the Glasgow and never more so than on this occasion. For the t bunches in the open class a very fine display was and Mr. J. Miller, Castlemilk, Rutherglen, who wo first prize, is to be congratulated on the excellence stand. Grapes were extremely fine, and Mr. J. Rowallan, who won three firsts for these, is worthy o praise for his wins. The collections of fruit were also good indeed. Floral decorations constituted a prom feature of the show, the dinner-table decorations very tasteful, the first in this class falling to Mr. Bell, Bothwell Castle. The show was opened on th day by Lady Inverclyde.

Pot plants were largely and well shown, and M Kelly, Dinnieddwg, worthily won the first prize for the Mr. J. Muir coming in a good second. Table and plants were very well shown, and Ferns made a very show indeed. The leading winners with the pot were Mr. J. Templeton, Mr. D. Allan, Mr. T. Nelson D. Baxter, Mr. A. Davidson, Mr. A. D. Hughes, M M'Kee, Mr. P. M'Farquhar, Mr. J. Swan, Mr. A. Aitc Mr. T. Muir, Mr. W. Jenkins, Mr. W. M'Lean, Mr. Lindsay, Mr. R. M'Lelland and Mr. James Miller.

In the cut-flower department a leading class was for a bank of flowers arranged for effect, and her James Muir, Crosbie Tower, Troon, came in first w brilliant and tasteful display. Mr. R. M'Lelland, cryve, Alexandria, was second; and Mr. J. Miller, milk, Rutherglen, third. Dahlias were also very and leading florists competed. For twenty-four b Mr. J. Smellie was first, Mr. W. Jenkins taking a s place with twelve. Mr. Smellie was also first for vases of Cactus Dahlias. Early Chrysanthemum always well done here. Mr. J. Smellie came in fir twelve vases and Mr. W. Jenkins for six. Mr. S was first for early single Chrysanthemums with good flo Sweet Peas were a strong feature, and Mr. Smellie s a fine collection of well-grown flowers for the first prize he won in the class for twelve vases. Mr. D. M'Milla first for six vases. Mr. J. Nicol was first for twelve of Carnations or Picotees with nice flowers well st The leading winners in this section, besides those al named, were Messrs. R. Robertson, P. M'Cowan, J. M R. L. Lindsay, J. Miller, J. G. Williamson, A. M'M A. Gray, A. Livingstone, R. Hunter, M. Henderso Campbell, J. S. Ritchie, J. Richardson, G. Mair and (who showed magnificent Gladioli), J. B. Wilson, A. R. Watson and A. Dunlop. The Rose classes br out keen competition and very fine blooms for the se Messrs. James Cocker and Sons, Aberdeen, were fir thirty-six blooms, Mr. W. Ferguson, Dunfermline, second. Messrs. Hugh Dickson, Limited, Belfast, first for twenty-four blooms. First-prize winners other Rose classes were Messrs. Cocker, Messrs. Dickson, Mr. W. Ferguson, Mr. P. Kenyon and Russell. As already indicated, the classes for di tables, baskets, bouquets, &c., were very good indeed the prizes went to a considerable number of exhib As previously mentioned, Mr. Bell, gardener to the of Home, Bothwell Castle, was first for the dinner decoration. There were no fewer than fifteen indiv exhibitors who won first prizes in this section out of tw classes, Mr. H. M'Skimming and Miss Grace Bryan the only competitors who had more than one first to credit.

Fruit was a strong section. That noted gardener James Brown, Houston, was first for a collection of t dishes of fruit with first-class produce, Mr. R. Gre being second. For six dishes Mr. J. Finnie, Summ Shandon, was second. Other leading winners with were Messrs. J. Dixon, H. M'Skimming, D. Hai Mr. J. Campbell, Mr. J. Ferrier, Mr. R. Greenlaw, M Anderson, Mr. P. M'Farquhar and Mr. F. Macrae.

Vegetables were very fine, Mr. James Brown le in the collection, Mr. J. Gray coming in first wit smaller one.

The non-competitive exhibits were of very high qu and Messrs. Austin and M'Aslan, Messrs. Malcolm C bell, Limited, Messrs. Smith and Simons, all of Glas Messrs. Sutton and Sons, Reading; and Messrs. E. and Sons, Stourbridge, all set up very fine exhibits of specialities, a gold medal being awarded to each. class certificates were given to Messrs. M. Campbel Son, Messrs. Hugh Dickson, Messrs. James Cocker Son, Messrs. Blackmore and Langdon and the Killern Nursery Company; and certificates of merit to M Dobbie and Co., Messrs. Williamson, Gemmell and Co Messrs. A. Cross and Sons, Limited.

THE GARDEN.

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CONTENTS.

Annuals for Autumn Sowing 457
Notes of the Week
Forthcoming events 458
Correspondence
The Sweet Pea controversy 458
Forcing Narcissi .. 458
Arctotis grandiflora in an Irish garden 459
Gardening of the Week
For the South and South Midlands .. 459
For the North and North Midlands .. 459
Sweet Peas at Kelvedon 460
Kitchen Garden
The Winningstadt Cabbage 460
Radishes for the winter 461
Rose Garden
New Roses of the year 461
Flower Garden
Narcissus Firetail .. 462
Manuring water plants 462
Flower Garden
A silvery-leaved Saxifrage 462
Fruit Garden
Fruit notes 463
The autumn treatment of Peach and Nectarine trees .. 463
Gardening for Beginners
Garden work week by week 464
Pot culture of the Freesia, Muscari and Fritillaria .. 464
Watering plants in houses and frames 465
The Town Garden .. 465
Greenhouse
Late-flowering Lilies in the greenhouse 466
Answers to Correspondents
Flower garden .. 466
Rose garden 466
Greenhouse 466
Kitchen garden .. 467
Fruit garden 467
Miscellaneous 467
Societies 467

ILLUSTRATIONS.

Dobbie's Improved Winningstadt Cabbage 460
Arctotis grandiflora in an Irish garden 461
The new Narcissus Firetail 462
A silvery-leaved Rockfoil: Saxifraga paradoxa .. 463
Culture of Freesias, Grape Hyacinths and Fritillaries 464, 465

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

ANNUALS FOR AUTUMN SOWING.

To what extent annuals in general will submit to autumn sowing and provide beautiful drifts of colour in spring when the ordinary seedlings sown at that period are but a few inches high is very much a question of soil, of season and of experiment. Altitude, too, plays a by no means unimportant part, though in lesser degree perhaps than the all-important question of soil, warmth and perfect drainage. These, indeed, are the essentials to success, and in all those instances where chalky or sandy soils obtain cannot be made too much of. For example, the heat of an ordinary summer is frequently found too much for annuals on a thin soil of chalk or much sand, and spring sowings of the seeds in such are calculated to provide but a poor as well as a short-lived display of flowers. All this is disappointing in the extreme. On the other hand, it is possible by the sowing of the seeds in autumn to provide in the same soil area a feast of colour impossible of description, apart from the advantages of a spring display weeks in advance of scheduled time. To the garden thus located this is a great gain, and, of course, the amateur, from his point of view, will appreciate it likewise.

Let me say at once, however, that it is next to useless to attempt the sowing of the seeds of annuals in autumn on soils that are continuously cold and wet, for here one needs to be just as emphatic in forbidding operations as, conversely, one would urge that the most be made of soils suitably warm and well drained. It may be, of course—indeed, is—that failures will be frequent even in these latter soils, for the gardener in all work of this kind must ever take his chances of seasons, of frosts and insect pests, which occasionally play their part in the annihilation of the crop of seedlings from which so much had been expected. Such failures, however, are never to be regarded in any very serious light—they are disappointing, naturally—for seeds are so cheap and the conveniences for raising fresh batches are so abundant that it is quite an easy matter to repeat the sowings of any that fail either in the open or in pots. That there are failures other than those which arise from soils and inclement weather none having expert knowledge of the subject will gainsay, one of the chief causes probably being that the seeds are too deeply buried. In such a case the cause of the failure may not be apparent at the moment. It may, indeed, be, and I think it often is, attributed to a too cold condition of the soil, to the indifferent quality of the seeds and to other causes that may not be exactly true.

Rarely, however, does the operator realise that over-deep sowing is the chief cause of failure. Rather does he take the misguided view occasionally that a deeper sowing of the seeds at such a time is a sort of necessary protection to the crop. In this, however, he is wrong. Instances, indeed, are known where the seeds have quickly vegetated and perished as promptly in their over-deep setting. Hence I urge, with some emphasis, that even for autumn sowing there is no need for any deeper soil covering than at any other period. The merest covering of soil then is sufficient, remembering always the lesson of the self-sown seedling, of its sturdy growth and freedom of flowering, of the power to care for itself, so to speak, and of the often overlooked fact that it falls into crack or crevice and vegetates there with practically no covering at all.

These remarks upon shallow sowing of the seeds apply to all annuals except Sweet Peas, which may be sown somewhat deeper than smaller-seeded subjects, or, in other words, the same as in spring. With perhaps no other flower is there so great a gain as with the autumn-sown Sweet Pea, the plants, in those districts and soils where such sowings can be relied upon, springing up and forming hedges of colour, bright, pleasing and effective, and comparable to no other flower. It so happens, too, that the "people's flower"—if one may coin a phrase, seeing that it is the flower of the million rather than of the few—admits of being transplanted, which many annuals do not, admits also of being raised in boxes or pots, and in this way transferred to its permanent place at a later date. Hence the Sweet Pea is possessed of many advantages, of which the most should be made. But it must be borne in mind that the best and earliest flowers are always the product of open-air sowings, that is, the sowings that have been made in the trenches where the plants are intended to flower, provided, of course, that they pass the trying ordeal of winter.

The best time for making these sowings is the month of September, while the soil is still warm and capable of being worked

to advantage, the Sweet Peas requiring a more liberal fare than the majority of the subjects I shall presently name. Indeed, in not a few instances—the annual Chrysanthemums and the Eschscholtzias, for example—a rather poor soil is preferable, the former group in particular making leaf growth at the expense of flowers when growing in soils that are too rich. Such things, however, are rather for the observant worker to decide, and it should be quite an easy matter to make note of those plants in any locality that appear to be given to grossness, and in future adopt measures, such as quite firm and poor soils, to prevent its repetition.

The following are some of the most suitable subjects for autumn sowing, and there may be others, for the list is not intended to be an exhaustive one: Godetias in variety, Sweet Peas of many shades, Clarkias, Nemophila insignis, Larkspurs, Limnanthes Douglasii, Eschscholtzias of sorts, Candytuft, Silene pendula, Virginian Stock, Bartonia aurea, Poppies, and Cornflowers, than which few things are more delightful, the blues, violets and pink-flowered sorts being those mostly favoured. Then there is the valuable Star race of Chrysanthemums, which Messrs. Sutton have done so much to popularise, Morning Star, Evening Star, Eastern Star and Northern Star constituting a quartet as beautiful and desirable as they are distinct. To these doubtless may be added others, for the gardener should never tire of experimenting with those as yet untried, nor should he take for granted that a failure in one garden or season may be repeated in the next. Indeed, there may be many surprises in store — surprises that come not to him who waits, but to him who seeks to find. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 17.—Elstree Horticultural Society's Show.

September 20.—National Dahlia Society's Metropolitan Exhibition at the Royal Botanic Gardens, Regent's Park, N.W. (two days).

Departure of a Scottish gardener.—We understand that Mr. Clark, who has been gardener to Mrs. Callender at Preston Hall, Midlothian, is leaving to go to the United States. Mr. Clark has done good work at Preston Hall, and a gardener of his abilities is certain to attain a good position in his new sphere of labour.

Honours at the Japan-British Exhibition.—Messrs. Kelway and Son, Langport, Somerset, inform us that the Superior Jury of the Japan-British Exhibition, in consultation with the head-gardeners of the exhibition, have awarded the firm the Grand Prize for the hardy plants which have been planted by Messrs. Kelway in the grounds at Shepherd's Bush.

The Gardeners' Royal Benevolent Institution.—The King has been graciously pleased to become Patron of the Gardeners' Royal Benevolent Institution, of which His Majesty, as Prince of Wales, was formerly President. Queen Mary has also been graciously pleased to continue her patronage which, as Duchess of York and Princess of Wales, Her Majesty accorded to the institution.

Increasing soil fertility.—An announcement of more than usual interest to those whose duty it is to till the soil and to take crops therefrom was made by Dr. E. J. Russell in the agricultural section of the British Association's meeting at Sheffield early last week. Describing the results of investigations made by himself and Dr. H. B. Hutchinson at the Rothamsted Experimental Farm, Dr. Russell said that they found that partial sterilisation of the soil by heat or treatment with volatile antiseptics such as toluidine led to a notable increase in the productiveness of such soil shortly after the treatment had ceased. As all students of soil and plant foods are aware, the majority of foods are rendered suitable for use by plants by the agency of bacteria present in the soil, and the theory advanced to account for the increased productiveness of soil after partial sterilisation was that soil under ordinary conditions contained organisms that were probably harmful to, or checked the increase of, these food-preparing bacteria. It was supposed that the partial sterilisation or treatment with poisonous organic vapour destroyed such organisms without injuring the bacteria. Gardeners have, of course, long recognised that by burning soil its fertility was subsequently increased, though for a short time after burning its fertility was very considerably diminished, if not altogether destroyed. If the theory put forward by Drs. Russell and Hutchinson can be substantiated, the value of the discovery can scarcely be over-estimated.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

The Sweet Pea controversy.—It was in 1887 that I purchased my first copy of THE GARDEN. The price was 4d., and it contained much valuable information, written by gardeners for gardeners, that is to say, professional gardeners. It seems now a very long time ago since that first copy came into my hands. I was just of age, and in training for the horticultural profession myself; but, like many young men, I was not true to my first love, and abandoned the "calling of gentlemen" for another, which doomed me to spend many years of the intervening time in cities and towns. It has only been during the last three years that I have been able to find leisure once more to turn my thoughts back to gardening. I find, however, a great change has come over the horticultural world. This is the day of the specialist. The new Hybrid Tea Roses are a great advance in every way on the Perpetuals of twenty-five years ago; the beautiful race of Cactus Dahlias are, again, a huge advance on the old show and fancies; and when I came to look at the average villa garden I found that the amateur specialist had arrived in strong force. Unfortunately, many of these amateur specialists, who profess to know all about certain flowers, can seldom show good results in their gardens. These remarks apply equally to the Dahlia grower, to the herbaceous border man, to he of the bulb cult, and, lastly, to the Emperor of them all, the Sweet Pea coddler. I use this word as it seems to me to be the only one to fit the case. Twenty-five years ago all the above interesting types were not known; they have evolved in that time, and with it my GARDEN is now one penny only, but I must say the quality of its information is even better. Now, what I want to ask is this: If this is an age of specialists—not gardeners, mark you—how is any Editor to please them all? If you please "Statice," who is doubtless a specialist in something or other, you will upset the Sweet Pea coddlers; and if you try to please the rosarians, you will get on the nerves of the Dahlia growers. Adhere, Mr. Editor, to your present lines, treat us all as gardeners generally, not specialists, and our turn will come round just at the right time; at least, this is what I invariably find.—JOHN W. HICKS, *Sutton Coldfield*.

——I think most of your correspondents who disagree with the remarks of "Statice" regarding Sweet Peas have missed the point. That "Statice" is a lover of Sweet Peas is proved by the fact that he grows 300 pots, and probably he would be prepared to admit all that your correspondents claim for them in range of colour, grace, sweetness and other features. His point was, I think, that too many horticultural adjectives have been imported by contributors in their articles about this flower. Most gardeners are dreadful "gushers" about their favourite flowers, but the worst of all are the journalistic descriptive writers who have in recent years turned their attention to Sweet Peas. For instance, it was not many years ago that Coccinea was introduced to the public with all the appropriate adjectives so dear to the descriptive writer; but I see in a recent issue your able contributor, "Spencer," says "we grew it, not because it was specially meritorious," &c. Now, either the gush which heralded the advent of Coccinea was misplaced or the statement that it was not specially meritorious is incorrect. Having had my say about Sweet Peas may I say how much I enjoy reading the "Daffodil Notes," by the Rev. Joseph Jacob? This week I have had a right royal time in growing Firetail, Michael and a few other millionaire bulbs. In my imagination I have been watching a pot of Narcissi which cost me £60. How I rubbed my hands and chuckled when I reflected that I alone (or perhaps one or two others, including Mr. Jacob) out of all your readers could afford to grow them. It was, however, nothing but a dream. I awoke full of sorrow, for, alas! I am a poor man, and not even his little list of newer Narcissi which he recommends for early forcing, with prices ranging from 1s. to £5 a pot, is within the capacity of my pocket. Nevertheless, I do hope Mr. Jacob will not recommend Mrs. Langtry, Victoria, Empress and such-like plebeian bulbs, for, like "the man in the street," I enjoy the romantic side of gardening.—H. J. CRAWFORD, *New Barnet*.

——I think that "Statice's" contention is right in the main. Too much fuss is being made with the Sweet Pea; there are far too many named varieties which vary only in name. Exquisitely beautiful as is the Sweet Pea, it is only as a cut flower that it really excels. The entire plant, whether grown in columns or rows, falls short of perfect beauty. Surely this is one of the reasons why it is mainly grown in our kitchen gardens. In small flower gardens it is almost impossible, so vast are its claims on air and soil space. Plant Sweet Peas largely in your flower garden and you must forego much of the beauty of the Delphiniums, Phloxes and Asters.—H. M. [This discussion must now cease.—ED.]

Hollyhocks at Shrewsbury.—In your otherwise excellent report of the great show at Shrewsbury you omitted to mention the splendid exhibit of Hollyhocks "entirely free from disease" made by Messrs. Webb and Brand of this town. I think great credit is due to them for their perseverance in face of the terrible disease that has affected Hollyhocks for so many years. The fact of their being able to exhibit them in full leaf with no trace of disease on them proves the progress that has been made in the management of them by this firm.—ERNEST ROBINSON, *Saffron Walden*.

Forcing Narcissi.—In his rather late—or shall I say "retarded"?— reply to a little criticism of mine on the above subject appearing in

The Garden of April 2 last, the Rev. J. Jacob would appear to have somewhat modified his views during the past six months. In The Garden of February 26 your correspondent stated that cultivators had to be "content with obvallaris, Henry Irving, Golden Spur, princeps and the old double yellow" if they desired to have "Daffodils in the early weeks of the year." Mr. Jacob further opined that "before long we shall be able to add some different types to our old standard forcing varieties." It was these sentences to which I took exception, pointing out that these "different types" had awaited the apathetic amateur for years, and I promptly gave the names of four, viz., Leedsii, incomparabilis single and double, odorus and Barri conspicuus, together with the white-flowered trumpet Daffodil albicans, &c. Now, Mr. Jacob complains that these are not "up-to-date varieties." They are certainly not—Mr. Jacob did not even hint at such—though at least they are as much so as the "old standard market sorts," for which we are still most thankful and to which your correspondent apparently desired additions. Had Mr. Jacob requested "up-to-date" varieties, I certainly should not have cited maximus, Leedsii and pallidus præcox as good for mid-January, three very beautiful, dissimilar and valuable kinds for the period named, though, of course, very old acquaintances. I fear, however, that Mr. Jacob would have a difficulty in matching them for distinctness or amenability to the forcing department, which in my mind was a vital point. I do not say that the trio I have named have anything in them from the commercial point of view, but for home work and because of the variety they afford at a time when flowers are scarce they possess a value of their own. In early January the old double yellow—I have repeatedly started picking this before the first week was gone—has a value all its own; but who wants it at all in April? Curiously enough, Mr. Jacob, referring to Leedsii, enquires, "Where, by the way, will he (should I) find this nowadays?" as though this dainty kind was lost and forgotten. In two lists at my elbow Leedsii is quoted at quite a cheap rate per thousand, and I imagine there would be little difficulty in getting a few tons of it if required. Hence Mr. Jacob need have no misgivings. Here is the description given of it in one of the lists referred to: "Leedsii, type, silvery white, starry, sweet-scented"—certainly not a bad set of attributes in a variety that may be forced into bloom in mid-January. But because the colour is not favoured in our markets—yellow being all the go—this dainty thing as a forcer is unknown to those who delight in chaste and beautiful flowers early in the year. Its forcing value is even unknown to Mr. Jacob. Finally, let me assure your correspondent that Barri conspicuus did not "flow from my pen without my knowledge," and that I gathered it in flower in January of the present year and before the indispensable ornatus. I admit it is "anything but a good forcer" generally, but, like ornatus, it is open to a little humouring, and it comes—when you have learnt all about it.—E. H. Jenkins.

Arctotis grandiflora in an Irish garden.—I enclose a photograph [reproduced on page 459] showing Arctotis grandiflora in my garden here; possibly it may be of interest to others. I brought cuttings from Tresco (Scilly Isles) twelve years ago, and have grown it ever since, propagating it by cuttings taken in August, as it will not stand our winters here. It is a grand plant for a sunny site when it is grown down over a bank or rockwork, and keeps in flower from June until the first frosts. It grows very rapidly; the plants shown were from two cuttings planted out in April, and the photograph was taken in August.—E. L. B., *County Antrim.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plants Under Glass.

Schizanthus.—The earliest-sown batch will now be ready for potting. Use 3-inch pots for the work. The potting compost should consist of one part loam, half leaf-soil and half well-decayed manure, with a good sprinkling of sand added, also a small quantity of soot. After potting the plants should be grown on in a cold frame, keeping them close and shaded till they have recovered from the shift. Schizanthus like cool treatment, therefore the plants should be allowed to remain in the frame as late as possible, when they may be removed to a cool, airy greenhouse and placed as close to the glass as they can be. Careful watering is necessary, otherwise, if kept too wet, the plants are liable to damp off.

Hyacinths.—These are very useful for conservatory decoration, and the bulbs should be obtained and potted without delay. A good, porous soil suits them, and they may be grown four or five in 6-inch pots, according to the size of the bulbs. After potting they should be plunged in ashes.

Primulas.—These should be taken out of the frames and placed in the greenhouse without delay. Afford them plenty of ventilation both day and night. No fire-heat will be required for a week, or possibly a fortnight, according to the state of the weather.

Flower Garden.

Border Carnations.—The rooted layers should be planted in their permanent quarters without delay. The ground that has been roughly prepared, ought to be made firm by treading. Make it level, and draw out drills 18 inches apart. Sever the layers from the old plants carefully, and take them up with a good ball of soil attached. Plant firmly 18 inches apart and, if dry weather prevails, afford them a good watering. Well-rooted layers, carefully handled, soon recover from the shift and become thoroughly established before winter. In very wet, cold gardens it is often necessary to pot some plants for reserve.

Delphiniums.—The present is an excellent time for planting. Give the ground a good dressing beforehand. Bold groups are most effective, and the various shades ought to be planted separately.

Wall Gardening.

To those who intend to try wall gardening, the best advice is to commence now. By carrying out the operation early in the autumn the plants become established before winter. The advantage of autumn planting lies in the fact that the atmosphere is more humid and plants take root more quickly than they do if the operation is delayed till late February or March. Then the drying winds are so penetrating that many subjects get shrivelled up before they have the chance to grow. Of course, the choice subjects, such as Androsace, Edraianthus and Onosma, which have such a dislike to the wet of winter, may be held over til spring. In forming a dry wall the joints between the stones should run into each other. This plan allows better facilities for the water to penetrate through the whole of the soil, and the planting should go on as the building proceeds. Plants of a tufted habit must not be placed directly under those of a hanging or creeping habit; thus, Erinus planted under Aubrietia would in time become smothered by the latter as it grows.

E. C. Pooley.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Propagating.

Antirrhinums.—Seedlings invariably give the finest flowers, but it sometimes happens that an extra fine variety has occurred, and to ensure its retention a number of cuttings should now be taken and inserted in a cold frame. Side shoots without flower-buds in the points make the best cuttings; but it is not always easy to secure sufficient of these, so recourse must be had to the sturdiest, short-jointed growths that are showing for flower. If the points are pinched out, the cuttings will be very little inferior to those from better shoots. Shade well for several weeks.

Pentstemons.—The wonderful improvement that has been made in this fine plant during the last decade has raised it again in public favour. Like the Antirrhinum, it is quite easy to raise from seed; but, of course, all named sorts must be increased by cuttings. Sturdy side shoots should now be plentiful, and if inserted in a bed of light soil in a cold frame seldom fail to root.

Protecting Plants from Frost.

Chrysanthemums.—Often at this season we experience a sharp frost for one or two nights. This is usually followed by two or three weeks of fine weather, and if a little protection can be afforded such plants as Dahlias and early Chrysanthemums, a fine autumn display well repays the trouble. Where sashes are plentiful, a temporary framework should be formed over the beds of Chrysanthemums and the lights laid on these. This protects the blooms not only from sudden frosts, but also from the heavy autumn rains. Of course, it may be necessary to throw a few mats over the sashes when a sharp frost is expected. Where no sashes are available, mats, tiffany or such-like substitutes must be used. Dahlias are much more difficult to cover up from frost, but some little protection should be given if possible.

Kitchen Garden.

Kidney Beans.—If a light frame or two can be placed over the late sowing of this useful vegetable, a few good dishes may be saved, which will be much appreciated later on. If no frames are available, mats can be used with fair success. Where the pods are likely to get old before they can be used, it is a good plan to lay them in salt for future use. Pick when dry and lay in a glazed earthenware dish, spreading a good layer of common salt between the layers of Beans. Cover the dish with a clean cloth and set in a cool, dry cellar.

Cauliflowers.—If the supply of this vegetable is in front of the demand, it is well to pull up some of the plants showing good heads and hang them in a cool, rather moist place. They will keep good for a week at least if so treated. When asked for, cut in the usual way and lay in cold water for an hour. Treated thus they will be very little inferior to heads cut outside.

Onions.—Should these be inclined to be rather thick in the neck and to remain green, a good method is to take a digging fork and thrust it in close to the offending bulbs. Partially lift the Onions by this means, severing the roots somewhat. By this simple plan the crop gets a check and ripening usually sets in more rapidly.

Under Glass.

Cleaning.—Before housing the Chrysanthemums and other plants that have stood outside during the summer, it is well to wash down all glass and woodwork and to remove all rubbish that may have collected under stages, &c. Wash pots, clear off weeds and dead leaves, making all sweet and clean for the winter. C. Blair.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

SWEET PEAS AT KELVEDON.

IT was a pleasure recently to visit the seed-growing farms of Mr. William Deal, Kelvedon, Essex, for the purpose of inspecting the Sweet Peas and other open-air flowers and crops, which are there grown literally by the acre for the sole purpose of seed production. As a county Essex is perhaps unequalled in this respect, and Mr. Deal finds himself practically in the centre of an industry whose magnitude we will not attempt to gauge and whose importance it would be difficult to over-estimate. Our present visit was confined to the home or "Brooklands" portion of Mr. Deal's farms, where a chief item just now, as for weeks past, is the wealth and variety of Sweet Peas, of which flower alone some six acres are grown, all on sticks, for the purpose we have named. That is to say, Mr. Deal, not being an exhibitor of Sweet Peas, concentrates largely his energies, and not a little of his enthusiasm—Mr. Deal is nothing if not an enthusiast in that direction—upon that particular flower. Hence we were not treated to, or enamoured of, those cultural excesses which result in plants many feet high, or that excess of this end much time and labour are bestowed, and a "rogue" has to be endowed with more than ordinary cunning to escape the ever-alert eye of the detective on duty here. Hence what we saw is the outcome of high-class field culture—those rational, up-to-date methods which long ago deleted from their systems those grosser notions of cultivation which but rob the plant of its character and that productiveness or seed yield from which the grower looks for his returns.

Needless to say, a large number of varieties are grown in quantity, the great rows of the more popular sorts extending to some 260 yards in length, and several abreast, as it were, forming a sumptuous feast of the flowers. To attempt to deal with even a fractional part of the whole is not our intention, and we incline rather to deal with some of the most conspicuous of the novelties raised at Brooklands. Of primary importance is Giant Waved Cream, of decidedly rich, heavy cream tone, the buds and opening flowers assuming almost the longed-for yellow shade. Even here, rationally and naturally grown and unforced, this is a giant indeed, one, moreover, that is bound to tower well above its fellows in the same colour class for some time to come. It is in every way a great gain, the size of the flowers, as well as their great substance, impressing

DOBBIE'S IMPROVED WINNINGSTADT CABBAGE.

inches of stem in which the exhibitor of such things takes keen delight. Rather were we distinctly impressed by the naturalness of the crop as a whole, the normal beauty and charm of the flower in its many and varying aspects, and the abundant promise of a good seed harvest, despite a summer that has been remarkable for much absence of sunlight and warmth, and, therefore, not a little of that genialness of temperature so much desired by the seed-growing farmer and gardener alike.

Trueness of stocks was equally marked, and must have been a source of much satisfaction to the proprietor, seeing its importance to the seedsman, the gardener and the exhibitor. To secure one distinctly. Winsome, described by the raiser as of heliotrope pink shade, is a truly delightful flower, and handsome withal. Colleen, the most attractive bicolor we have seen, and which stood out so prominently at the National Sweet Pea Exhibition of a week or two ago, is quite one of the most fascinating of these flowers; while Queenie, in colour between Evelyn Hemus and Paradise Ivory, is as delicate and fair as its name so well suggests. In habit, however, it is possessed of a vigour of its own. Winifred Deal, briefly described, is an improved Elsie Herbert, and merits much praise. Bertrand Deal, a particularly fine waved variety of pale rose mauve colouring, is both good and distinct. Last, though not least, among the novelties noted—the list must not be taken as exhaustive or complete of those raised by Mr. Deal—is Scarlet Monarch, a waved variety of the highest excellence, whose brilliance defies description. It is in every way a magnificent variety, purely self-coloured and without an equal here. Mrs. Routzahn, remarkable for its delicate charm, is here in strong force, and is regarded as indispensable. Constance Oliver, Evelyn Hemus, St. George, Mrs. Henry Bell, Improved Edrom Beauty, Zarina (a lovely thing), the brilliant if not sunproof Earl Spencer, Marbled Blue, Miriam Beaver (salmony pink), Etta Dyke, King Edward Spencer, Flora Norton, Mrs. Hardcastle Sykes, Countess Spencer and John Ingman are a few among the many that assisted to cover the broad acres at Brooklands. But these were not all. In a place apart, a sort of "Holy of Holies," we had the privilege of seeing a most interesting series—not yet ripe for distribution—whose flowers in pink and white, intense blue and other shades were marked like watered silk, and for which we predict presently no small amount of popularity.

Other crops filling considerable stretches of land were Godetias, Helichrysums, Sweet William Pink Beauty, Brilliant Scarlet and others, Machet Mignonette (a grand lot), Rose Carmine Candytuft and a pure white Candytuft named Snowflake, whose crimped or crested flowers on giant spikes render it highly distinct and decorative We regard it as a valuable addition to its class. A new green-seeded Broad Bean named Brooklands Prize is both handsome in pod and exceedingly prolific, and for which a large demand is expected if we may judge from the extensive area now covered by the nearly ripe seed crop.

THE KITCHEN GARDEN.

THE WINNINGSTADT CABBAGE.

THERE are few of the numerous varieties of Cabbages in commerce or grown here that have more distinguishing characteristics than has the Winningstadt. The illustration we give of it will serve to indicate that to those not familiar with it, but those who do know it may pick it out from all others readily. The leafage is of a deep glaucous green, the hearts singularly firm and solid, the leafage being folded over to enfold the heart in the tightest possible grip. We know of no Cabbage which gives such solid hearts when well grown as does this variety. The top or point of each heart has invariably a little rosette or curl, which is never absent in the true stock. The Cabbage illustrated was one of several exhibited at the meeting of the Royal Horticultural Society on August 2 by Messrs. Dobbie and Co. seedsmen, of Edinburgh, and was grown by them at their seed farm, Mark's Tey, Essex. The variety as presented by this firm received an award of merit from the Royal Horticultural Society. It is but right to say that this form represents the firm's Improved Winningstadt, as by constant selection they have not only materially dwarfed it, but have also in other respects improved it. The heads then shown were from an October sowing in a cold frame last year, the plants being put out in the spring on to ordinary farm land Could this variety but be as widely known by cottagers and allotment workers in the South as it is in the North, it would be found, as a summer Cabbage, a winning variety at every show in the kingdom. As a cooked Cabbage it is tender and

delicious. In the "Vegetable Garden," M. Vilmorin has both well illustrated and described this Cabbage, which is evidently of German or Pomeranian origin. He writes of it in high terms as of a "middling early kind, exceedingly productive, and cannot be too highly spoken of." Under the practised eyes of the Scottish firm who have secured so excellent a name in horticulture, the Winningstadt Cabbage is now far better than in M. Vilmorin's time.

RADISHES FOR THE WINTER.

THE Radish is not grown for use in winter nearly as much as it deserves, as it is a valuable addition to the salad-bowl if the roots are fresh and tender. For a winter supply there are not many varieties in this country, but on the Continent they are very numerous, and nearly all colours are represented by some very large roots. The two best are Black Spanish and China Rose. The first-named is a roundish root with black skin, and of this there are two forms, one called the Long Black Spanish. China Rose is oblong or oval at times, having a bright rose colour, and both are excellent for sowing in September for a winter supply. There is also a scarlet variety of the last-named called the Turnip-shaped China, an excellent winter variety, and one that remains solid for months when full grown if stored in soil in a place just frost-proof. It has fine white flesh and a mild, agreeable flavour. The winter varieties in a well-drained soil will stand in the open, but in a stiff, heavy soil I have found it best to lift in December and store as advised.

G. WYTHES.

THE ROSE GARDEN.

NEW ROSES OF THE YEAR.

(*Continued from page* 451.)

THE following six varieties obtained the silver-gilt medal of the National Rose Society this year:

Earl of Gosford (H.T., S. McGredy and Son).—A grand colour, somewhat resembling Leslie Holland, but probably a more suitable variety for the garden.

Evelyn Dauntsey (H.T., S. McGredy and Son).—This is a pretty Rose, blush colour on inside of petals and rich rose on outside. There are several of this type now, and it struck me we could very well do without this variety.

St. Helena (H.T., B. R. Cant and Sons).—A delightful Rose destined to become a favourite. It has the fine conical form of Pharisaer, but of a colouring more of the style of Melanie Soupert.

Mrs. Foley Hobbs (T., A. Dickson and Sons).—This is a splendid Tea Rose, of ideal form, reminding one of the novelties in Teas we used to get years ago. Whether it will prove sufficiently distinct from W. R. Smith I am unable to say until I have tested the former outdoors; but, judging from the blooms I saw at Holland House, the variety is quite distinct and, I should say, capable of being produced of a larger size than W. R. Smith, although this grand variety can be had quite of middle-row style.

Mrs. G. Shawyer (H.T., Lowe and Shawyer).—As seen at Regent's Park this gave me the impression of being too much like Joseph Lowe. I cannot see the advantage of adding to the already overburdened collection of pink Roses, for they dominate everything, and, unless of exceptional merit, it would be better if they were not named.

Frank Thorpe (H.T., H. Dickson).—I should not be surprised if this Rose does not supersede J. B. Clark. It is of much the same shade of colour, and I am told its growth is not so tall, a very welcome feature. Its form is conical and the petals are beautifully reflexed.

Cards of commendation were awarded this season also to the following:

Colcestria (H.T., B. R. Cant and Sons).—Probably this Rose appears better on the plant than it does when cut; otherwise it did not impress me as being of any special merit. The colour is a dainty shade of pink.

Lucy H. Williams (T., S. McGredy and Son).—In a cool season like the present this variety will be fine. Its form is beautifully conical and the flowers clear ivory white.

Mrs. Gordon Sloan (H.T., A. Dickson and Sons).—A delightful blending of salmon and flesh pink shades, and the form is exquisite. It is a most promising variety.

ARCTOTIS GRANDIFLORA IN AN IRISH GARDEN. (*See page* 459.)

Mrs. W. T. Massey (H.T., S. Bide and Sons).—In the mass this too much resembles Irish Elegance, although doubtless quite distinct. We must have really distinct Roses if they are to live in our collections. A Rose such as Mrs. Arthur R. Waddell is so absolutely distinct that, although in many respects rivalling Irish Elegance, there is room for them both.

Rescue (Mr. Mattock, Headington, Oxon).—A single, huge-petalled Rose of bright cerise colouring, shading to creamy white. The mass of golden stamens and reflexed edges of petals add much to the beauty of this useful novelty.

Roses honoured by the Royal Horticultural Society this season have not been numerous.

At the Temple Show two varieties were honoured by receiving awards of merit. These were:

Duchess of Westminster (H.T., A. Dickson and Sons).—A superb flower of large size, and of a beautiful glistening pink colour resembling Dr. J. Campbell Hall.

Excelsa (Wichuraiana, Walsh).—A nearly double crimson Dorothy Perkins. It has no relation to that Rose, apparently, but more probably to Hiawatha. As shown from under glass it was a very brilliant colour, but with me outdoors it has not proved quite so bright; nevertheless, it is a most useful addition to the ramblers.

At Holland House the Royal Horticultural Society gave the unusual award of a first-class certificate to Messrs. William Paul and Son's striking novelty *Juliet*, and it was agreed on all hands that the variety merited the proud distinction. It is a proof of what may be accomplished by the simple crossing of a Hybrid Perpetual with such a marvellous Rose as Soleil d'Or. Already this latter has made for itself a great reputation as the pollen parent of many lovely varieties, either directly or indirectly, from its seedlings, and to it we owe such fine sorts as Lyon Rose, Arthur R. Goodwin, Beauté de Lyon, Entente Cordiale, &c., but I think Juliet is the most wonderful. The flower is of good form, globular and large, the petals on the inside a rich carmine-scarlet, and on the outside old gold. When the petals reflex slightly at the edges in the half-open flower the contrast of the colours is marvellously beautiful, and it must be seen to be believed. Its growth is very vigorous, so much so that the Rose may well be grown as an isolated bush, or as a pillar, or even as a hedge, and its fragrance is delicious.

At Holland House an award of merit was given to Mrs. Foley Hobbs, previously described, and also to

Mary Countess of Ilchester (H.T., A. Dickson and Sons).—A large-flowered variety of a warm crimson-carmine colour. It is so very free in blooming that it will be used largely for bedding purposes where a high-class flower is preferred.

Earlier in the year Messrs. Paul and Son received an award of merit for

Freda (H.T.).—A rather uncommon colour, rose, with shades of violet. The flower is of elegant form and fairly full. On July 19 an award of merit was given to Mr. Charles Turner for

Flame, a variety of the multiflora type, whose semi-double, rosy crimson blooms, with whitish centres, are produced in huge trusses that will make this a useful rambler.

The foregoing are, I believe, all the Roses that have been honoured this year in this country.

It may be interesting to some readers if I give next week a list with brief descriptions of some good novelties of this year and last, and for convenience sake I will name them alphabetically.

P.

(*To be continued.*)

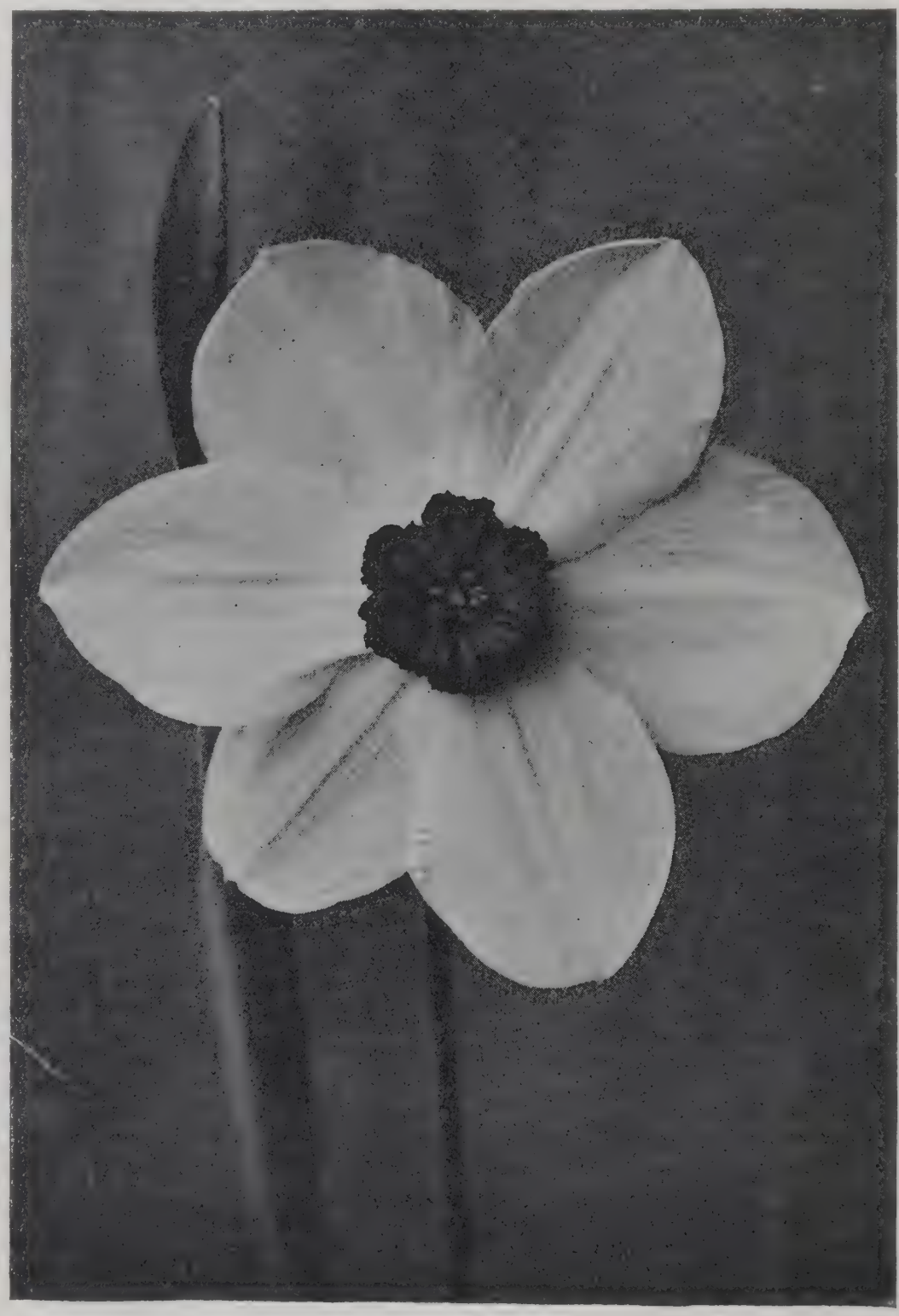
[Since the above notes were written the Rev. J. H. Pemberton has received an award of merit for *Daphne*, a pink Polyantha that was described on page 454 of our issue for last week.—ED.]

THE FLOWER GARDEN.

NARCISSUS FIRETAIL.

I AM glad to know that our Editor is publishing in this issue the illustration of Firetail, which he kindly sent me a few weeks since, and which I commented upon in my notes in the issue of August 27. In that large and beautiful class of flowers which are almost Poets it ranks very high indeed. Its size (3⅝ inches across the perianth and three-quarters of an inch across the eye), its perfectly formed perianth of the palest primrose, its deep scarlet eye, overlaid, as it were, all over with bright crimson, and the solidity of its texture, all combine to make it, as Miss Currey says, "a magnificent flower." It was raised by Mr. E. M. Crosfield, who is rapidly qualifying (if he has not already done so) to be looked upon as a sort of W. G. Grace in the Daffodil world. I often say to myself, Would they ever have got him out if he had had the modern billiard-tables on which to bat. And who would beat "E. M." if he had the ideal climate of Cornwall in which to grow and prepare his flowers for show? Not that he is a showman only; he is also in the very front rank of our seedling-raisers. A man whose name is qualified to appear in brackets after such flowers as Empire, Countess of Stamford, Challenger, Majestic, Mrs. E. M. Crosfield, Faction, Snow King and Firetail has every reason to be proud of what he has done, and may justly be considered to have got pretty high up in the tree. This magnificent flower received an award of merit at Birmingham this spring, and it has this autumn the distinguished honour of appearing on the title-page of Miss F. W. Currey's list of Daffodils.

JOSEPH JACOB.



THE NEW NARCISSUS FIRETAIL. (*Natural size.*)

MANURING WATER PLANTS.

ALTHOUGH there are some disadvantages attending the manuring of aquatics, yet it is fairly well proved that it serves a good purpose by encouraging greater vigour of foliage and assisting both the numbers and the size of the flowers. This is no slight gain, and its attainment without making the water offensive to the senses of sight and smell is well worth considering, although it is difficult to secure it in all positions, such as in the case of tanks or ornamental ponds close to a dwelling, or in prominent places. The simplest and least offensive way is by the application of the manure when planting is first performed; but, of course, the effect becomes exhausted in the course of time, and some other method may require to be adopted.

In first planting the aquatics, either Nymphæas or other kinds, a liberal addition of thoroughly well-decayed cow or bullock's manure may be added to the soil round the roots, and where the plants have to be fixed in old baskets or other receptacles to be sunk in position this should be well mixed with the soil placed in the baskets, and the latter then sunk by means of stones. If the manure is thoroughly decayed, the water may be slightly discoloured, but no offensive effluvium will be given off.

Where the plants have been established for some time and are showing loss of vigour, which occasionally occurs in some ponds, the application of some clear manure-water will be useful and practicable in a small tank during the winter, but it must be as inoffensive to the smell as possible. I have seen guano used, but some employ artificial fertilisers. Of course, this is practically impossible in a large pond, and there it is more desirable to drain off the water and again apply some solid manure. One cannot, however, recommend the addition of manure where gold-fish are kept in the ponds, and adding too much will cause too rank growth and too much vigour. The late Mr. F. W. Burbidge in one of his works pointed out the remarkable effect produced upon our native Water Lily, Nymphæa alba, by the addition of manure, and remarked that the flowers and leaves were of twice the natural size. Mr. Amos Perry has just introduced a new Water Lily manure which promises to meet a long-felt want. It is in the form of small, square cakes, and the method of application is exceedingly simple. This is to break a cake in two and to sink a half near each plant. It is claimed for this manure that it will be of great value and will assist the plants greatly, especially where they cease flowering prematurely from want of vigour. From the analysis of the manure there is no doubt that it will be extremely useful, and being in such a portable and convenient form it will be of great assistance. Mr. Perry has found that it is advisable to soak the cake of manure for a few hours before application should it be very dry when received. S. ARNOTT.

A SILVERY-LEAVED SAXIFRAGE.

(SAXIFRAGA PARADOXA.)

TROUBLES of nomenclature are so numerous among many flowers, and especially among the Saxifrages or Rockfoils, that it is somewhat appalling to have to write of any special Saxifrage of certain types by a distinct name. This is the case with that shown in the illustration on page 463, and known in gardens as Saxifraga paradoxa, but which we are told should really be called Saxifraga Aizoon paradoxa. Its claim to be considered a form of Aizoon is not beyond suspicion, and we find such an eminent authority on these Silvery Saxifrages as Mr. Reginald Farrer saying that it "is a paradox indeed. I am fairly catholic, I hope, but I cannot see by what right this plant dares to call itself an Aizoon at all." However, we must take things as they are, but it simplifies matters for the garden if we drop the Aizoon and call it plain and unadorned S. paradoxa.

As a rock plant the charms of this Rockfoil lie mainly in its foliage. It is one of the Saxifrages which is, to tell the truth, rather deficient in floral beauty. Not that its flowers are not as beautiful in form and in growth as those of its compeers of the same section, but they are duller in colour than most of its class, being a kind of greenish yellow. So much for its shortcomings, and now for its virtues. As a foliage plant it is simply exquisite, and we have few if any of its class which are so much admired when out of bloom. It forms a lovely little cushion of long, silver-braided leaves in rosettes. The general colour of the leaf is a kind of blue-grey, but the margins are exquisitely marked with silver, and no one who loves a Silvery Saxifrage should be without it. Whether on the level terrace of the rock garden or planted in a crevice or on a rocky wall this Saxifrage is worthy of our admiration.

SOME NEW NARCISSI

Top right-hand flowers, DRESDEN; left, SOCRATES
Cream flower, EROS; Lower right-hand flower, MESSINA

Its culture presents no difficulty, but I think it prefers a good loam, freely mixed with grit and sand. I usually add some old mortar rubbish or pieces of limestone when planting the Silvery Saxifrages, and the plant here illustrated is treated to such a compost. It is all the better for having a few stones laid round the necks of the rosettes when first planted, and it should receive at least annual top-dressings of similar compost to that used in planting, working this well among the rosettes, and watering it in should dry weather continue after the top-dressing. It increases with fair rapidity, although not so speedily as some others, and is quite hardy. The plant shown in the illustration is growing in a western exposure, but this Saxifrage seems to flourish in almost any aspect.

Dumfries. S. ARNOTT.

THE FRUIT GARDEN.

FRUIT NOTES.

HARVESTING CROPS.—It is much to be feared that the task of harvesting the crops of fruit in the vast majority of British gardens this season will not involve nearly as much labour as the owners of the trees would desire, simply because the burdens are light from one end of the country to the other. This being the case, it is imperative that the full value of what crops there are shall be ensured to their growers, and to this end no efforts must be spared to secure them at just the right time and to handle them with so much care that it is impossible for the slightest damage that might impair their keeping or other qualities to be done. Each specimen should be tested by lifting carefully upwards towards the spur, and unless it parts freely it should be allowed to remain a little longer. With heavy crops this cannot be managed, and the average of ripeness must necessarily be taken; but in this year of scarcity it ought always to be had recourse to by amateurs. In storing, a place with an equable temperature should be requisitioned, and the fruits ought to be put in single layers and be frequently examined.

AUTUMN STRAWBERRIES.—These do not, unfortunately, develop a really good flavour in most of our gardens, but it is possible to assist matters in this direction to a material degree by placing old frame-lights over the plants. To facilitate this the plants of St. Antoine de Padoue, or other approved variety, should always have a position on a warm border, where they will naturally secure the benefit of as much sun as possible and where it will not be difficult to arrange to put the suggested lights in place. The glass will ensure the utmost benefit from the sun; it is to this that we owe the excellent quality which our best summer Strawberries possess, and it has the same, though not perhaps to an equal degree, effect on the autumn fruiters.

ROOT-PRUNING.—This is a task of which the average amateur fights exceedingly shy, fearing that he will do more harm than good by interfering with those parts of the plant that are below the surface of the soil; and yet it is commonly an imperative operation if the trees are to fulfil the object of their culture—to produce fruit. In many instances the operation may be reduced to the simple expedient of lifting and at once replanting; but this can only be adopted with young, recently planted trees, and can scarcely be correctly termed root-pruning, notwithstanding the fact that it gives the check which is essential to direct the energies of the plant towards fruition instead of to the persistent formation of long, strong wood. It frequently occurs that trees planted in the autumn grow too grossly in the succeeding season, and when this is the case the lifting and replanting will often give the required check and obviate the necessity for proper root-pruning at a later date. With established trees which make such luxuriant wood that they do not give flowers, it will be necessary to cut a trench round the bole, roughly 3 feet away from it and about 2½ feet deep. If the work is done with a sharp spade the coarser roots will be severed, but it is imperative that each one shall be cut smoothly over from beneath upwards with a sharp knife before the trench is again firmly filled in with sound loam. In those instances where the presence of a strong tap root is suspected, a cross-trench must be cut directly to the trunk and the root severed. It has been said that the trench should go completely round the tree, but if this is one of considerable age and size, it will be wiser to operate on one half the first year and leave the other portion to be dealt with the following autumn, in case the shock should be too severe for the tree to withstand it. The operation of root-pruning can be carried out at any time during the autumn, but it is, generally speaking, preferable to finish it before the leaves have fallen from the branches, and it is always absolutely necessary that it shall be accompanied or immediately followed by intelligent branch-pruning; but to this aspect of the case attention will be directed in a later issue. FRUIT-GROWER.

A SILVERY-LEAVED ROCKFOIL: SAXIFRAGA PARADOXA.

THE AUTUMN TREATMENT OF PEACH AND NECTARINE TREES.

TREES which have been cleared of their fruit will require every attention for some time if good crops are to be obtained another season. I know of nothing so detrimental to Peach and Nectarine trees as dryness at the roots after the crops have been gathered. In my opinion, based upon many years' experience and close observation, the loss of buds at the time the trees are starting into growth is due to a considerable extent to dryness of the soil, coupled with hot sun and a parching atmosphere, at the time the buds are ripening. At one time it was thought that bud-dropping was due to unripened wood; but I think just the opposite: the wood gets too ripe and the buds too forward. We make it a rule to examine our borders weekly, and if found dry, water is freely supplied, supplemented with liquid manure at intervals till the soil is made thoroughly moist throughout the whole of the borders.

Sometimes the surface of the borders becomes somewhat hard and cracks appear. Should this occur, these cracks must be well filled with fine soil and the surface slightly pricked up so as to allow the water to more evenly soak into the soil, after which a light mulching with manure will prove helpful in preserving the moisture. Pruning and thinning of the shoots I usually leave till later in the season, say, about the second week in October, when the sun has less power, and I have no reason to complain of the results.

Soil and tools should be got ready for transplanting large fruiting trees, as the work must be done early if the trees are to bear good fruits next year. I have lifted trees very successfully in October from the open walls and planted them under glass, kept the foliage well syringed, the trees shaded in bright weather, and the house rather close for about ten days to a fortnight, with excellent results. Great care should be taken when lifting large trees to see that the roots are thoroughly moist before commencing to disturb them, and not to damage any more than can be helped during the operation, this applying especially to those fibrous roots which we all so much desire to find. Any large roots that are damaged should have the injured portions cut away with a sharp knife. It is marvellous how readily Peach trees respond to removal providing the work is judiciously carried out. H. MARKHAM.

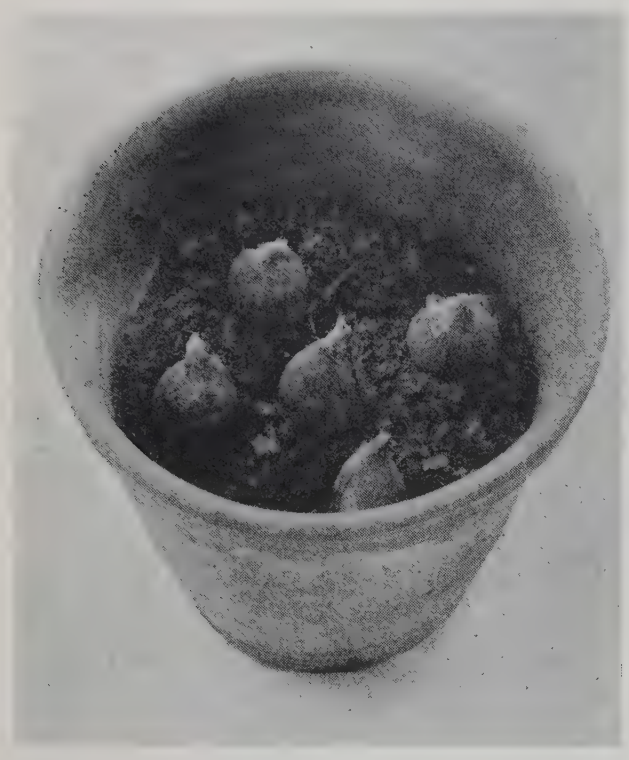
Wrotham Park Gardens, Barnet.

GARDENING FOR BEGINNERS.

POT CULTURE OF FREESIAS, GRAPE HYACINTHS AND FRITILLARIES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—There have not been many brown lawns seen during the past summer, only a few patches where the ground has dried up owing to its very sandy nature and where the soil was shallow on sunny slopes. It has been necessary to make constant use of the mowing-machine, and the roller attached



1.—FREESIAS FOR CONSERVATORY DECORATION SHOULD BE GROWN IN 5-INCH POTS, ARRANGING FIVE OR MORE GOOD BULBS 2 INCHES APART AND 1 INCH DEEP, AS REPRESENTED ABOVE.

has kept down uneven surfaces. Now, however, it will be advisable to use the lawn roller at least once each week both on lawns and paths. If the lawns are rolled in one direction one week, they must be rolled in an opposite direction the next. By adopting this plan the surface is kept even and not waved, as would be the case if all the rolling was done one way. Budded Roses must be very carefully examined. We have lately experienced some rough, windy weather, and the consequences may be that some branches have been partially broken off. It is no use retaining such branches; they must be cut off entirely and others duly supported by a few neat stakes. The Gladioli have been extremely attractive this year, and no time should be lost in correcting names where the latter are wrongly placed, so that varieties replanted next season may be true to name. It is advisable to stake the flower-spikes, as they are weighty and easily displaced by strong winds. Michaelmas Daisies should also be supported and notes made of any alterations that may be deemed necessary in the replanting of the clumps. The stock plants of Lobelias, Verbenas and similar kinds should now be lifted and potted, and for a short time kept in a comparatively cool frame.

Vegetable Garden.—No one can grow fine vegetables in a poor, shallow soil, but the latter, if well trenched and enriched with manure, may be vastly improved in a single year and made to yield very good crops. I feel quite sure that many beginners have had to deal with poor soils during the present year and have experienced some disappointment. Owing to failure success may come, and will come if the ground is trenched at once. Those who have failed may wonder what they can do to reap better results next year. I do not hesitate to say, trench, trench, trench. Commence at once and go down quite 30 inches, loosening the lowest 12 inches of soil, thoroughly breaking it up, but leaving it below. Directly any crops such as Peas, Beans, Onions, Carrots and Beet are cleared from the ground, the latter should be trenched if there is no other special use for it. Indeed, it would be much the wisest plan to do the trenching and not attempt to cultivate any other crops on it first. It is well to trench soil of good quality also. Thin out winter Spinach early and also late-sown Turnips.

Fruit Garden.—The time will very soon come when the fruit-grower will be busy planting young fruit trees. In the meantime the soil must be dealt with, and a beginning should be made this week. Too often fruit trees are planted in unprepared ground. I know of one very special case where this was done, and the trees are poor ones now, after the lapse of many years. The soil was good, but not trenched. In another instance where the soil was trenched the fruit trees have, in only a few years, done remarkably well. The soil was very poor, too. Owners of small gardens do not grow as many cordon fruit trees as they ought to. During the next few days notes should be made of spare wall spaces and buttresses, so that cordons of Pears, Plums and a few choice Apples may be planted in due course. Bury burnt soil and rubbish in the ground when engaged in trenching the latter for fruit trees.

Greenhouse and Frames.—Specimen plants in pots growing on lawns and in flower-beds must now be brought in and placed in the greenhouse. Now, if the specimens in question are well taken care of, they will look really well in greenhouses during the winter months. They are worth taking care of, as many years must pass before large plants can be grown. At first on all fine days admit air to them freely. When putting Azaleas in greenhouses be quite sure that the leaves are clean—free from red spider and thrips. Rather less water will now be required by greenhouse plants generally. The demand upon frame space at this season is very great, so avoid undue crowding of plants and ventilate freely. Place Solanums (S. Capsicastrum) in the frames now; then the berries will be very highly coloured. Remove Libonias from the frames to the greenhouse. A. A.

POT CULTURE OF THE FREESIA, MUSCARI AND FRITILLARIA.

THE three subjects mentioned above can be grown in pots or boxes quite easily, and for this reason they may appeal to the beginner who in the past may have been content to grow only Hyacinths and Tulips wherewith to make his greenhouse or conservatory gay in the early months of the year. Freesia refracta and F. refracta alba, the former having white and orange flowers, and the latter, as the name suggests, white flowers, are among the most easily grown of spring-flowering bulbs.

Too frequently the potting up of the bulbs is done too late in the season, and this invariably detracts from their flowering satisfactorily. There is no better period than August and September, and those who have grown this subject in previous years, and who have allowed their bulbs to ripen in the pots in which they flowered last spring, may now shake them out of their pots and repot the bulbs in fresh soil and in other pots or boxes. Other readers who have no such supplies to draw upon should make the necessary purchase from the bulb dealers forthwith. The bulbs can be purchased quite cheaply. For conservatory decoration pots either 5 inches or 6 inches in diameter should be utilised, and they should always be washed quite clean before use. Carefully crock the pots with potsherds, arranging the latter so that they form an excellent drainage of the soil to be placed in the pots subsequently. A suitable compost for this subject is made up of three parts good loam, one part leaf-mould, one part dried cow-manure and one part coarse silver sand or clean road-grit. Should it be difficult to procure the much-valued cow-manure, use any well-decayed manure that is available. Mix the foregoing thoroughly, and pass the ingredients through a coarse sieve before mixing them. Eight or ten bulbs in a pot 6 inches in diameter will make a beautiful display, and five in a 5-inch pot will answer equally well, as represented in Fig. 1. A larger number of smaller bulbs would, of course, be necessary. Arrange the bulbs about 2 inches apart and at least an inch deep. Cover these with the prepared compost, and if this be fairly moist when used, no water will be required until it becomes dry.

Readers who desire to grow the Freesias for cutting—and they are much appreciated in late winter and early spring—should use boxes or pans. In Fig. 2 a number of Freesia bulbs, arranged in alternate fashion in a somewhat narrow box a few inches deep, are shown. Culture in these boxes is a very simple affair. Plant and cover with soil as advised for those in pots, and place both pots and boxes in a cold frame, where they should remain as long as the weather permits or until growth commences. Very little water will be required

2.—FOR CUT FLOWERS FREESIAS MAY BE GROWN IN BOXES. ARRANGE THE BULBS IN ROWS, ALTERNATING THEM IN SUCCESSIVE ROWS, AS ILLUSTRATED.

3.—THE FEATHER HYACINTH (MUSCARI PLUMOSUM) MAY BE GROWN IN PANS, AND THE BULBS SHOULD BE PLANTED AS SHOWN IN THE ILLUSTRATION.

until growth is in evidence, and from this point until they have ceased to flower they should be watered freely, subsequent to which gradually withhold water. Introduce successive batches of Freesias into the greenhouse where the temperature can be maintained at from 45° to 55°.

The Muscari or Grape Hyacinths are more often grown outdoors in masses, and in this way they are beautiful and most effective. Although quite hardy, they are well adapted for pot culture. They may be grown successfully in 5-inch or 6-inch pots or in boxes in similar fashion to the Freesias, but they are never more effective than when grown in pans of good dimensions. In Fig. 3 a dozen bulbs arranged in proper order in a pan 10 inches to 11 inches in diameter are shown, and from such an arrangement a really dainty and beautiful effect may be obtained. Half-a-dozen bulbs in a 5-inch pot may be used with equal success. Soil for this subject should comprise two parts sandy loam, one part leaf-mould or well-decayed cow-manure, and sufficient coarse silver sand to make the compost porous. Mix well before using.

There are a number of pretty species, of which M. botryoides, blue; M. b. album, white; M. conicum (Heavenly Blue), blue; M. comosum (Tassel Hyacinth), deep blue; and M. plumosum (Feather Hyacinth), blue, of curious form, are well known. The latter is figured in the last-mentioned illustration, and the bulbs are larger than some of the other species. In all cases where the bulbs are smaller a larger number should be placed in the pots or pans. After potting place the pans, &c., under a layer of sifted cinders, Cocoanut fibre refuse or clean sand till growth commences; then arrange in a cold frame, subsequently removing to a cool greenhouse or window during the flowering period. Dry off after flowering in a sunny spot outdoors.

The Snake's-head Fritillary (Fritillaria Meleagris).—This is one of the commonest of the Fritillarias, and is a native plant of Great Britain. I have grown this Fritillary in pots and pans and flowered it in a cold greenhouse, giving the plants similar treatment to that accorded the Muscari. In Fig. 4 a few bulbs of this subject arranged in a 6-inch pot are shown. A sufficient depth has been observed for the bulbs to be covered satisfactorily. There are many other species of the Fritillary, each of which has a beauty peculiarly its own, and some, such as the Crown Imperials, are very stately and effective when grouped in masses in the hardy border. D. B. C.

WATERING PLANTS IN HOUSES AND FRAMES.

THE well-being of a plant depends, to a great extent, upon the way the watering is done. Fine specimens are soon ruined through injudicious watering. I lately saw some plants that had been partially spoiled through careless watering. The plants in question were growing in pots in the open air quite exposed to the rains, and showers were frequent; but notwithstanding all this, water was poured into the pots daily. Result: the roots were crippled and starved, the soil soured, and all owing to the atmosphere being moist, evaporation from the leaves being low and, consequently, the water artificially applied could not be absorbed. The effect was to stop free growth and to turn the leaves yellow. Plants growing in pots in the open air should not be watered in the evening in autumn; the morning is the best time, then there is not as much danger of over-watering, because the winds and sunshine in the day-time dry up excessive moisture and the roots remain warmer at night.

In the autumn, winter and early part of spring water should be given to pot plants under glass during the morning, from nine to ten o'clock being a very suitable hour. Then there is the question as to the right quantity of water to give to each plant. This can only be settled by the condition the plant is in. If it is a Fuchsia, tuberous Begonia or similar kind of plant that will shortly lose its leaves naturally, watering must take place less frequently; but when it is needed, sufficient must be applied to thoroughly soak the soil in the pot down to the drainage. Zonal Pelargoniums, Cyclamen and similar plants which live and grow throughout the winter, and especially those of a fine fibrous-rooted nature, such as Primulas and Calceolarias, must be most carefully watered, never until the soil is getting rather dry, but always applying sufficient to go right through the pot. AVON.

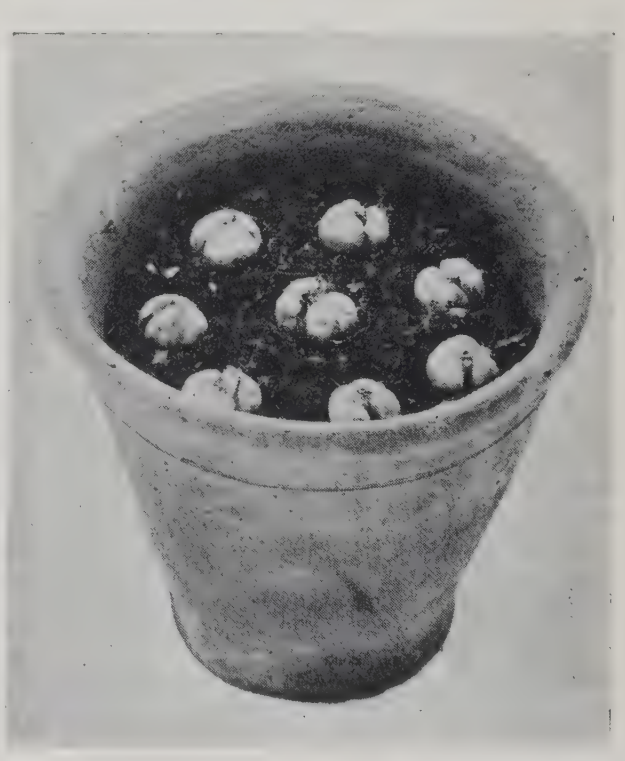
THE TOWN GARDEN.

GATHERING FRUIT: A WARNING.—Not infrequently in town or suburban gardens a few fruit trees are to be found, and all being well the plants should now be groaning with the weight of the fruits. There is, however, more than a passing sign of a plenitude of maggot this year, and all fruits affected will sooner or later fall to the ground, the sooner, perhaps, in the event of a severe wind-storm. All this is but the outcome of the maggot-infested crop, and such fruits are only of service for immediate use. It so happens, however, that the uninitiated, seeing that a few fruits are brought to earth by the wind, concludes that the time is ripe for gathering the crop, and acts without further ado. Now, there is no more fertile cause of failure than the gathering of fruit before it is fully matured, and it is this undue haste in such matters that I desire to warn my readers against. Nor can it be too widely known that many varieties of Apples swell more perceptibly during the month of September than at any other period. Hence, not merely for the sake of maturity in the fruits, but equally also because of the added size and weight such maturity affords, should the crop be left a sufficiently long time upon the trees.

THE TEST OF MATURITY.—"How am I to know when the fruits are ready?" asks the amateur, and the enquiry is a reasonable and natural one. The professional gardener and the expert fruit-grower know by long experience; they are also acquainted with the ripening periods of many of the fruits. Not so the amateur, who, seeing the crop falling to the ground, decides that it is time to gather. Here, however, is a simple test. Cut open a fruit and examine the pips. If these are of a white colour or just assuming a brown tone they are not ripe for gathering; but if the pips are of a dark brown colour they have arrived at the mature stage, and may be gathered at any time. Even then, however, there need be no undue haste in the matter, for the fruits will continue to swell for some time yet. Late-keeping varieties of Apples, such as Bismarck and Lane's Prince Albert should not be gathered till well into the month of October.

THE PENALTY OF EARLY GATHERING.—This might be summed up in a few words, viz., immature and flavourless fruits. Such fruits usually are doomed to shrivelling or early decay, and thus is the round of disappointment completed. This is, of course, but the penalty of inexperience in these matters, and those interested in them cannot do better than consult a good book, such as "The Fruit Garden," by Messrs. Owen Thomas and George Bunyard.

STORING THE FRUITS.—Of an importance not surpassed by the above is the storing of the fruits when gathered. The ideal fruit-storing room is a heavily thatched building of wood and reeds, with possibly a straw or heather roof. In such a place uniformly cool and moist conditions prevail, and which are absolutely essential to success. The other extremes of great dryness and changeableness of atmosphere are fatal to the successful keeping of fruits. So, too, are closeness and warmth. Fruits may be well kept in cool, moderately moist sheds or cellars where the above conditions prevail and where darkness is secured.



4.—THE SNAKE'S-HEAD FRITILLARY IS A NATIVE BULBOUS PLANT THAT MAY BE GROWN QUITE SUCCESSFULLY IN POTS IF PLANTED AS SHOWN ABOVE.

AURICULAS.—Pot-grown examples of these, and the choice show and alpine varieties in particular, should now be protected from much rain, though the advantages of a refreshing occasional shower for the last-named section are often manifest. Those with mealy foliage are likely to lose much of their characteristic beauty when exposed to rains, though, as a rule, it is replaced in time. At the most the only protection needed is overhead, and the plants love the coolness of the autumn days and nights. E. H. JENKINS.

THE GREENHOUSE.

LATE-FLOWERING LILIES IN THE GREENHOUSE.

WITH the practice that now prevails of retarding the bulbs of many Lilies, it is quite possible to obtain flowers of such kinds as L. auratum, L. longiflorum, L. speciosum and L. tigrinum Fortunei nearly throughout the year. In order to retard the bulbs expensive appliances are necessary; therefore the better plan is to obtain them in a dormant state from the dealers—that is, just as they have been taken from the refrigerating chamber—or they may be bought later on fully established in pots just as the buds are developing. While this last-named plan gives less trouble to the purchaser, it is the most expensive, both as to the price paid and the cost of carriage. Of the Lilies above enumerated L. auratum is, as might be expected from its erratic behaviour out of doors, the least to be depended upon when retarded; but it is such a striking species when at its best that it cannot on any account be passed over. So universal has the retarding process become that at many of the large sales of Japanese bulbs held in London during the autumn and winter months the greater portion are bought in a wholesale manner for treating in this way.

Besides these Lilies that, at least in the case of some, owe their late-flowering qualities to the treatment they receive, though L. speciosum and L. tigrinum Fortunei will often bloom till the frost, there are at least three others that are naturally late-flowering, namely, L. nepalense, L. neilgherrense and L. sulphureum. The oldest and now the rarest of the three is L. neilgherrense, whose long, primrose-tinted trumpets I have often had in good condition in the greenhouse during the months of October and November. Twenty-five years ago bulbs of this Lily used to be sent here in considerable numbers. It, however, never proved amenable to cultivation after the first season or two, and as the native supply would seem to have become gradually exhausted, it appears to have almost died out. This is a pity, as it is a delightful Lily, possessing among its other features an aromatic fragrance essentially its own.

Lilium nepalense, the next to mention, has, unlike the preceding, been imported in increased numbers within the last few years. It is such a distinct Lily that there is not the remotest danger of confounding it with any other species. The flower-stem, which attains to a height of 3 feet to 6 feet, is dark in colour and of a particularly firm texture towards the base. In contour the flowers somewhat suggest those of L. szovitzianum, though with rather a more pronounced tube. In colour they are yellow or greenish yellow, with a chocolate purple centre. The shade of yellow varies considerably, as also does the space that the purplish portion occupies on the segments. Except in favoured parts it must be regarded essentially as a greenhouse Lily; but it forms such a beautiful autumn feature in that structure, and can when dormant be purchased at such a comparatively cheap rate, that it merits extended cultivation.

Lilium sulphureum is a native of much the same district in Burmah, and though the plants are as distinct as they well can be, the bulbs, singularly enough, greatly resemble each other. Of the two L. sulphureum is the more robust, and has proved to be a very satisfactory plant out of doors in some districts. Where conveniences exist for planting it out in the greenhouse it does well. When treated in this way it will attain a height of 6 feet to 10 feet; but if grown in pots and kept out of doors till the flowers are developing, its stature will be less. When first introduced this Lily was known as L. wallichianum superbum. The flowers of L. sulphureum are very large, trumpet-shaped and highly fragrant. They are of a creamy tint, tinged with red on the exterior, and inside are heavily suffused with yellow. H. P.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Sowing Gentian seed (*J. T. S.*).—The seed should be sown in early October after it has become well matured. The usual recommendation to "sow as soon as ripe" all classes of perennial seeds has its drawback in the fact that they lie in the soil, for some unaccountable reason, much longer than other seeds of the same batch kept for a few weeks. A mixture of good loam, leaf-soil and sand in equal parts rubbed through a sieve of quarter-inch mesh will do quite well. The seeds should be lightly covered, given a gentle watering, the pan to be placed in a uniformly cool place on ashes where the worms cannot enter it, and after giving a watering to settle the soil, cover it with darkened glass to stay evaporation. Thus placed, no water will be required for weeks to come.

Flower-bed on lawn (*P. M. Armstrong*).—We are afraid the size of the bed, 9 feet by 18 feet, precludes the possibility of a continuous display for the greater part of the year, as you desire, unless you could grow a number of plants in pots or otherwise to form a succession, bedding them out as others fail or complete their flowering. A simple bed of a free-flowering Rose such as Richmond might for spring effect have Tulips or Daffodils, and white Lilies and white Violas for later effects. Or, again, the bed might be wholly occupied in spring by either Tulips or Daffodils and covered with scarlet, white, pink or other coloured Begonias for the summer and autumn. Of perennials, Pyrethrums, Irises, Lilies, Aster bessarabicus, A. Amellus, Campanula persicifolia, C. Moerheimii, hybrid Pentstemons, Phloxes and the like would each provide its quota of colour, and, preceded by Tulips and Daffodils, might be succeeded by Asters, Stocks, Godetias, Clarkias, Nemesias, Zinnias and other things. The weak point of so much in so small a space would be the lack of effect, there being no room for free masses of things at any time.

Lilies failing (*F. B. M.*).—The present season has been a most trying one for Lilies in general, and we could not assign a definite reason without fuller knowledge of the circumstances. Not infrequently those of the auratum and speciosum groups fail because no basal roots are formed after the bulbs are received in this country from Japan, the first season's growth being almost wholly dependent upon the stem roots formed *above* the bulb. In the plight your Lilies are the better plan will be to lift and examine them. In all probability you will find them rootless and practically in a state of collapse, and if so you had better discard them without more ado. The failure of L. chalcedonicum may be due to other causes than those stated, and in any case it requires a long time to re-establish itself. Lilies, when in good health, are not benefited by lifting each year.

Eremurus seeds (*S. P. Laekey*).—Sow the seeds at once in prepared soil in a frame, arranging them in drills 2 inches asunder and planting the seeds so that there will be room for developing. If you sow the seeds also 2 inches apart, the seedlings may remain a couple of seasons without disturbance. You do not say which of the Eremuri you have, and there is some difference as to their powers of retaining vitality. The majority are best sown soon after ripening and usually vegetate the ensuing spring. Cover the seeds 1 inch deep.

ROSE GARDEN.

Roses for pergola (*H. H.*). — We should have preferred to have dug the borders 3 feet deep as these rambling Roses require a deep root-run if they are to be a great success. By adding basic slag to the lower soil you also provide the roots with some good, lasting nourishment. You can certainly plant the charming dwarf Cluster or Polyantha Roses in the same borders. Pot-grown plants, if of extra size, would certainly enable you to cover the pergola more quickly, but they sometimes appear very thin and lanky, and do not fill up so well as ground plants. A good plan is to plant one of each to each station, the pot plant to cover the top and the ground plant to be cut down to the ground, the subsequent growth furnishing the base.

Rose foliage blighted (*Amateur*). — The leaves you send are affected with black spot, a fungus that causes the foliage to drop prematurely. Try spraying with potassium sulphide, 1oz. to ten gallons of water. Pick up all fallen leaves and burn them.

Rose Lady Ashtown (*Miss M. E. C.*).—Your plants have evidently sported, because the wood is exactly like Lady Ashtown. It is a worthless sort, and we should send some blooms to the nurseryman who supplied the plants and ask him to replace with the true kind.

Rosa bracteata (*A. P., M.V.O.*).—We believe the variety you have is R. bracteata var. alba odorata, and not the true Maria Leonida, which has leaves much smaller than those you send. We think you would obtain the true variety of Maria Leonida in a pot from Messrs. William Paul and Son, Waltham Cross, and you could then compare them.

White Banksian Rose not flowering (*E. M. B.*).—The Banksian Rose requires very little pruning, as it flowers on the growths made the previous year. Perhaps the roots are too dry and the foliage is suffering from mildew which frequently attacks it. Give your tree a good soaking of water, and fork a little lime and bone-meal into the border, covering it afterwards with manure to the depth of 3 inches.

Rose White Dorothy Perkins (*Mrs. J. B.*).—This beautiful sport has not yet become quite fixed. We have seen it this season producing blooms half pink and half white, as those you send, and probably we shall always find this occurring more or less. The type itself, namely, Dorothy Perkins, is extremely sportive, as already it has produced Lady Godiva, Christian Curle and Dorothy Dennison. Perhaps someone will be able to fix the variegated form; if so, it will be very pretty.

Rose Marechal Niel in a pot (*Derby*).—As your plant exhibits no signs of breaking into new growth, we think you would do well to plant it out into a border in the greenhouse, or, failing that, repot it into the next size pot. Probably the roots are so bound that they fail to be active. When you turn the plant out, prod the ball with a pointed stick to release the roots somewhat; then place the ball in a bucket of water for a few seconds. Replant or repot at once, pressing the soil firmly about the roots, and afterwards water the soil. Do not prune the plant in any way at present. Probably your Tomatoes are kept too wet at the root. Mulch the plants with the manure, but refrain from applying quite so much moisture as you have been doing.

THE GREENHOUSE.

Fumigating with cyanide of potassium (*A. Davis*).—Cyanide of potassium, or, rather, the hydrocyanic gas which is given off when the potassium is mixed with sulphuric acid, is so deadly that excessive care must be taken in its manipulation. A single inhalation of the fumes would most probably have fatal results. Such being the case, we do not advise its use in a structure near a dwelling-house nor in a stove which is not in a sufficiently good condition as to be thoroughly air-tight, so that the fumes cannot escape until they have lost their poisonous character. The

peration is carried out by placing a certain uantity of water in a shallow earthenware pan. o this must be added the requisite amount of ulphuric acid. The cyanide of potassium must e so arranged over the vessel containing the ilute acid that by pulling a string from the outside f the house the cyanide will drop into the acid nd the deadly fumes will be at once given off. It best done in the evening, and after the plants ave been exposed to the gas for an hour the venti- ators should be opened from the outside. Every recaution must be taken to make sure the atmo- phere is quite pure before any attempt is made to nter the house. In cyaniding, the temperature ust not be more than 55° and the plants dry. he sulphuric acid is of so corrosive a nature that ne utmost care must be taken in handling it. The roportions used are 10½ fluid ounces of water to ½ fluid ounces of sulphuric acid and 1½oz. of odium cyanide for each 1,000 feet of the cubic ontents of the house. Sodium cyanide is the rongest form of potassium cyanide. As this is ich a dangerous operation, we should much prefer clean the climbing plant with one of the many ell-known insecticides, such as a mixture of soft ap and paraffin, or any of the different prepara- ons sold for the purpose.

Professor Johnstone's chemical manure *H. Jones*).—We regret that we do not know Professor hnstone's formula for a chemical manure suitable for pot ants, but there are now a great number of valuable anures of this class. As the majority of firms have their n particular manure, it is obvious that we should not be ing justice to the advertisers in THE GARDEN if we commended one manure in preference to another.

KITCHEN GARDEN.

Cropping greenhouses in winter (*Tomato, otts*).—If you have prepared no successional ops to follow the Tomatoes, your only choice in e matter is to let the houses remain idle or incur nsiderable expense in purchasing suitable things. good batch of Chrysanthemums, either pot- own or lifted from the open ground, would have led the gap between October and the end of the ear quite well; or you might have arranged to ow a winter crop of Mushrooms, having the aterials ready by the time the Tomatoes had nished. You might, of course, fill the houses ith bulbous plants for forcing; but unless you ave a moderate amount of capital at command, well as some experience in bulb-forcing, we ould advise you to let this crop alone. Much, turally, depends upon ways and means, and in e whole of the circumstances, so far as we know em, we think you cannot do better than sow omato seed at once, and grow a crop in pots in dvance of those you would plant out in summer. hubarb, Seakale and other things may be forced you possess the necessary experience to do this th success.

Tomatoes turning yellow and refusing to (*Devonshire*).—We can find no fault with the soil ed for potting or with the temperature in which you had e plants growing. Have you examined the base of the ems of the plants and the roots? The damage we spect has been caused by wireworm or some other structive weevil in the soil.

FRUIT GARDEN.

Peach fruit falling (*W. P.*).—The cause your Peaches falling from the trees after they ve set is most probably due to their being too flourishing." The wood made is most likely o gross, green and sappy, and such wood never es carry good, healthy fruit. The shoots made e better for fruit production if much less gross d thoroughly hardened. Most likely your soil, ing an old Vine border, is too light and porous. Peach tree border, while of good, sweet, loamy il, and including plenty of lime rubble and some ely crushed bone and soot, should, all the same, be made very firm, as solidity encourages the formation of fibrous rather than of coarse, thong-like roots. We strongly advise that in October, so soon as the leaves begin to fall, you have the top soil removed from the roots, the trees unfastened and carefully lifted, the border made much more solid, then the trees at once replanted, more shallow than before, adding on the surface a coat of long stable manure to ward off frost. The results next year should be greatly to the trees' benefit.

Nectarine leaves diseased (*T. P. R.*).—The Nectarine is attacked by the Peach scale (Lecanium persicæ). This pest does great damage to Peaches and Nectarines. It is best attacked in the winter, when the trees may be sprayed with caustic wash (2lb. caustic soda, ¾lb. treacle and 10 gallons of water). The scales on the leaves do damage, and some might possibly be killed by fumigation.

MISCELLANEOUS.

Yucca leaves diseased (*W. A.*).—The Yucca leaves are attacked by the fungus Coniothyrium concentricum, which also attacks Agaves and some allied plants. It spreads rapidly, and it would be best to remove all the affected leaves and burn them; meanwhile spray with Bordeaux mixture as you have been doing, or with potassium at the rate of half an ounce to the gallon of water.

Watercress going to seed (*J. Wornham*).—Watercress should not be allowed to go to seed, as it weakens the plants to no purpose. As your plants were only put in last March they should not be disturbed; but let the seed stems be cut off as soon as possible, and the plants (if in a healthy condition) should soon give you another crop.

Carnation leaf diseased (*Miss M. D.*).—Judging by the leaf sent, your Carnations are so badly attacked by spot and also red spider that it will be useless to attempt to restore them to health. The only thing you can do is to burn the plants and start anew with a clean stock. It would have been better had you sought advice long ago; that is to say, before your plants got into such a state.

Violets for profit (*B. W. Stuckey*).—Whether the situation would prove too high for the successful cultivation of the Violet on profitable lines can be best determined by experiment, as much would depend upon environment, and shelter or exposure in particular. As you know nothing of the cultural requirements of the plants, your better plan would be to pay a fee to some good, practical man to view the spot and advise you in the matter. The nature of the soil, so far as we are able to judge from your letter, presents no insuperable difficulty, and, indeed, may be made agreeable to the plants if not of too heavy a nature. "Sweet Violets and Pansies," to be had from this office, would help you.

Systems of drainage (*Half-acre*).—Some of your questions are scarcely those of a gardening nature, and would be best answered, we think, by a duly qualified sanitary engineer or inspector. Satisfactory answers to Questions 1 and 3 could only be given by a knowledge of the size of the receptacle in each case, its cubic contents and the number of your household using it; while in the case of the cesspool it would also be important to know whether bath water and rain water would enter into it. Similarly would these also affect the value of the cesspool contents as manure. Usually the contents of a cesspool are good for nearly all kitchen garden crops. They are of a most offensive order, though lime and fine soil quickly applied have a deodorising effect. There should be no disagreeable smell from a properly constructed cesspool, which of necessity should be in the nature of a well or tank resting on a cemented base over strong concrete, the sides internally to be well coated with cement, and the outsides well puddled with tempered clay. The top should be domed, or, finally, covered with heavy deals or stone capping, and over this a foot of soil. A strong pump should be inserted for clearing it.

Names of fruit.—*A. C. S.*—The Apple is a very poor specimen, but we believe it is Mank's Codlin.——*Camphire.*—Pear Doyenné Boussoch.——*Bara Rocks.*—1, Apple Mr. Gladstone; 2, Pear Beurré Giffard; 3, Pitmaston Duchess; 4, Guthrie's Gage; 5, Cox's Emperor; 6, Foster's Seedling; 7, West St. Peter's.

Names of plants.—*K. R. Image.*—Probably Albuca species. After they have made full growth and have ripened off do not give water till the flower-spike shows. ——*S. J.*—1, Senecio tanguticus; 2, Veronica longifolia; 3, Chelone obliqua.——*Rhoda.*—Physostegia virginiana speciosa.——*J. Philcox.*—1, Ceanothus Gloire de Versailles; 2, Trachelium cæruleum; 3, Lantana salvifolia; 4, Malva moschata alba; 5, Verbascum Chaixii; the Statice is S. sinuata.——*T. L. K. Edge.*—Potentilla recta variety.——*Colonel Fetherstonhaugh.*—Cratægus coccinea; ——*I. R.*—Trachelium cæruleum.——*S. Reeves.*—The Rose is Mme. Hector Leuilliot, a very pretty semi-climber. ——*J. E. Lord.*—1, Hibiscus Syriacus Bleu Celeste; 2, H. S. rubro-pleno; 3, Mimulus glutinosus; 4, Rose Reve d'Or; 5, Rose Lamarque.——*T. E. Woodhouse.*—Lobelia tenuior and Rose Dorothy Dennison.——*R. Ford.*—The Rose had fallen to pieces. It is probably Cloth of Gold. The Michaelmas Daisy is Aster acris. The Kniphofia (Tritoma) is a good form of K. aloides (syn. T. Uvaria). ——*W. Butler.*—Statice sinuata.——*Pelargonium flowers received without letter or note.*—1, Petals dropped, impossible to name; 2, Mme. Salleroi; 3, Ivy-leaved Beauty of Castle Hill; 4, Ivy-leaved His Majesty The King.

SOCIETIES.

ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

THIS society held its annual autumn show, opened by the Marchioness of Tweeddale, in the Waverley Market, Edinburgh, on September 7 and 8. There was a reduction in the number of entries, these numbering about 1,350 against about 1,500 last year. This was mainly due to the unfavourable fruit season, the falling off being principally in the Apple classes, but there was an improvement in the cut-flower and vegetable departments. Nurserymen's exhibits were more numerous than for some time, and the spacious area of the Waverley Market was well filled.

In the competitive classes one of the most important was that for a table of dessert fruit, for which prizes were given by the Corporation of Edinburgh. The tables were to be 10 feet by 4 feet 6 inches, decorated with plants in pots not exceeding 5 inches (and) (or) cut flowers, Orchids excluded, and not more than sixteen dishes of fruit, selected from a list given. Prizes were in two classes, the first being for fruit alone and the second class for decorative arrangements irrespective of the quality of the fruit. The first prize for the fruit went to Mr. J. Gibson, Welbeck, with 101 points, the quality being very high; second, Mr. J. H. Goodacre, Elvaston, with 97½; third, Mr. W. McKinlay, Wrest Park, with 80½. For decoration Mr. Goodacre, who used Montbretias, was first with 23 points; second, Mr. J. Gibson, with 21½; third, Mr. McKinlay, with 17.

For a collection of twelve dishes of fruit Mr. J. Gibson was first and Mr. Goodacre second. For twelve dishes grown in an orchard-house Mr. Gibson was again first, with Mr. Goodacre second.

Scottish Challenge Trophy.—This class, for eight bunches of Grapes, not more than two of each variety, is one in which the keenest interest is taken. This time it was no less keen, although only three collections were staged. These were very fine all over, but no surprise was felt by the greater number of those interested when it was learned that the coveted challenge cup, valued at fifty guineas, with a sum of money and a gold badge, had been awarded to Mr. James Dixon, gardener to Mr. Cameron-Corbett, M.P., Rowallan, Ayrshire, for eight splendid bunches, for which 64 out of a possible 74 points were given. As the pointing shows, these were very fine; but many competent critics were of opinion that his No. 4 bunch, one of Black Hamburgh, was so fine that the full 9 instead of 8 should have been credited. It was a superb one indeed. The Madresfields were also very fine, and the two bunches secured 8½ each out of a possible 9. Mr. Goodacre came second with a very fine lot, for which 52 out of a possible 73 points were awarded. Mr. T. Ireland, Newstead Abbey, was third with 44½ out of a possible 72. Mr. Dixon is rapidly coming to the front as a Grape-grower, and is to be congratulated on this his greatest win since he entered the lists.

Mr. D. Kidd, Carberry Tower, was first for four bunches, for which competitors in the challenge class could not compete. Mr. J. Highgate, Yester, was second.

In the other Grape classes, which were, as a whole, exceptionally good, the winners of first prizes were: Mr. W. G. Buchanan, Alloa Park; Mr. T. Lunt, Keir; Mr. Dixon; Mr. W. Smith, Newtonairds, Dumfries; Mr. T. McPhail, Archerfield; Mr. Gibson; and Mr. J. E. Davis, Ballathie.

Mr. W. Scott, Drumpark, was first for Melons, green or white; Mr. P. K. Hills, Kinloch Castle, Isle of Rhum, first for collection of dessert Plums; and Mr. G. Mackinlay for culinary Plums. Mr. Ness, Oxenfoord, was first for Peaches, and Mr. Lunt for Nectarines.

In the other classes for the smaller fruits Mr. J. H. Bolton, Powderhall Castle; Mr. Hills; Mr. Gibson; Mr. J. Duff, Threave; Mr. Mackinlay; Mr. Knox, Brewlands; Mr. D. Pitt, Eccles; Mr. A. Brydon, Tweedbank; Mr. A. Aitken, Kirknewton; and Mr. P. McAndrew, Coldstream, won first prizes. Excellent fruit was shown in these.

The very numerous Apple classes were not so well filled as usual owing to the season, but there could be no complaint as to the quality, which was very high. For the collection of twelve varieties Mr. E. F. Caddick, Ross, was first, Mr. J. Duff occupying the same position for the collection grown in Scotland. For six varieties Mr. J. Lee was first. Mr. Caddick was the leading winner throughout most of the Apple classes.

Pears were a fine show, Mr. Gibson taking the chief honours in the collection, and Mr. C. Traill, Auchentorlie, those for Scottish Pears. Mr. C. K. Hills was first for four dishes of pot or orchard-house grown Pears.

Plants were not so numerously shown as they have been at this exhibition, and the absence of the groups was a distinct loss. The plants shown were, as a rule, of high quality. Mr. D. Mackay, Viewbank, was first for stove or greenhouse plants, for four Orchids (distinct) and one Orchid. Mr. A. Findlay was first for Cypripediums. Begonias were very fine, and here Mr. R. Brown, Dalkeith, led for six, Mr. G. D. Kerr, Langton, taking a good position in the other classes for these popular flowers. Mr. A. McMillan, Douglas Castle, led for six foliage plants, and Mr. J. Thorn for table plants.

Cut Flowers.—These were, as usual, very largely shown, and, despite the bad season, were wonderfully fresh and clean. It was remarkable, indeed, how little the signs of damage by bad weather were apparent. In so many classes it was difficult to select a few for notice, but it may be said that Gladioli, Cactus Dahlias, Sweet Peas, Roses, Carnations, Chrysanthemums, hardy flowers and bouquets were notably good. With twelve grand spikes of Gladioli Mr. A. Brydon carried off the honours over such a capable grower as Mr. J. C. Forday. For six Mr. A. Bennett led.

Mr. C. Shaw, Kippen, was first for twelve and six Cactus Dahlias and six bunches of singles. Mr. A. Jenkins was first for Pompons. Mr. Brydon was the leading winner with hardy flowers.

Sweet Peas.—These were wonderfully good and the competition excellent, although the marks of bad weather were observable in some cases. For the twelve bunches Mr. G. D. Kerr, Langton, Duns, won with a very fine exhibit of flowers. These were Dusky Monarch, Clara Curtis, Syeira Lee, Evelyn Hemus, Earl Spencer, New White Spencer, Audrey Crier, Mrs. Hardcastle Sykes, King Alfonso, Elsie Herbert, Masterpiece and John Ingman. Mr. J. A. Fletcher was second with very good flowers. Mr. Kerr also led for six. Mr. J. A. Grigor won for the new Sweet Pea not in commerce with a good scarlet (Seedling No. 3).

Roses.—The leading class in the gardeners' and amateurs' section was that for the Hugh Dickson Memorial Prize, and some beautiful blooms were shown. The trophy was well won by Mr. W. Parlane, Roselea, Row, with a splendid lot, these being Her Majesty (2), Heinrich Schultheis, Frau Karl Druschki (2), Dean Hole, Hugh Dickson (4), Mrs. E. Mawley, J. B. Clark, Maman Cochet, Earl of Warwick, Joseph Hill, Mrs. W. J. Grant, Mme. Ravary, Alfred Colomb, Countess Wagram de Turenne (2), C. J. Grahame, Anna Olivier, Richmond and Mrs. J. Laing. Mr. Parlane also carried off the prizes for twelve Hybrid Teas, twelve Teas, six vases, six scarlet or crimson, and six white. Mr. W. J. Staward and Mr. Brydon won in the other Rose classes in this section.

The gold medal for border Carnations went to Mr. J. Stewart, jun., Alloa ; and the silver one to Mr. D. Halley, Broughty Ferry. Mr. P. Douglas had the best Tree Carnations. Winners with Chrysanthemums were Mr. J. Richardson, and Mr. R. Sutherland, Kirkintilloch.

OPEN CLASSES.

Gladioli were superb here, and Messrs. G. Mair and Son, Prestwick, excelled their previous exhibits with twenty-four magnificent spikes ; Mr. J. C. Fordy made a good second. Messrs. M. Campbell and Son, Blantyre, received the award for a collection of Dahlias ; Mr. J. Paul, Killearn, for twenty-four bunches of Cactus ; Mr. J. Smellie for six vases of Cactus and six vases of Pompon Dahlias.

Roses. — There was very good competition among several of the leading Rose-growers, and in the class for thirty-six distinct varieties Messrs. J. Cocker and Son, Aberdeen, won with a clean, fresh lot of very fine blooms. The varieties were Alfred Colomb, Caroline Testout, Rev. A. Cheales, Frau Karl Druschki, Liberty, Oscar Cordel, Betty, Mrs. D. McKee, Captain Hayward, Mrs. R. G. Sharman Crawford, C. J. Grahame, Danmark, Mme. Wagram, Helen Keller, Dean Hole, A. K. Williams, La Tosca, Earl of Dufferin, Lord Sheffield, Hugh Dickson, Lyon Rose, Marquise Litta, Dr. O'Donel Brown, S. M. Rodocanachi, Königin Carola, Gladys Harkness, Mrs. John Laing, Duke of Edinburgh, Auguste Rigotard, Joseph Lowe, Countess of Gosford, Pharisaer, La France de '89, Gustav Grunerwald and Dr. Andry. Messrs. Hugh Dickson, Limited, Belfast, were second with excellent blooms also.

Messrs. H. Dickson were first for eighteen Hybrid Teas ; and winners in other classes were Messrs. Cocker, Dickson, D. and W. Croll (Dundee), W. Ferguson (Dunfermline), J. Smellie and Perkins and Son. Messrs. Cocker had also the best collection of Roses.

Mr. J. Smellie had the best eighteen bunches of early Chrysanthemums. Messrs. Campbell and Son were first for Carnations. Messrs. Perkins and Sons, Coventry, were the leading winners for bouquets, &c.

Vegetables.—These were again a grand display, and only conditions of space prevent a more detailed notice. Mr. J. Gibson repeated his long record of successes with his fine collection of vegetables, Mr. J. E. Davis, Ballathie, being second. Mr. W. Galloway, Gosford, was first for the collection grown in Scotland, Mr. F. M. Urquhart being second.

NON-COMPETITIVE EXHIBITS.

Mr. D. M. Omish, Crieff, sent hardy flowers in variety, including good Phloxes, Pentstemons, &c. (silver-gilt medal). Messrs. Tillie, Whyte and Co., Edinburgh, exhibited splendid vegetables (silver medal). Messrs. T. Methven and Co., Edinburgh, set up a fine group of plants, including excellent Liliums, &c. (silver medal). From Mr. H. N. Ellison, West Bromwich, was sent a table of Ferns (silver medal), and a similar medal was given to Messrs. W. Wells and Co., Merstham, for Chrysanthemums. Messrs. Storrie and Storrie, Glencarse, had tables of excellent fruit in pots, &c., and examples of their choice strains of Streptocarpi, Excelsior Poppies, &c. (silver-gilt medal). Mr. John Downie, Edinburgh, set up a good group of plants (silver medal). Messrs. Dobbie and Co., Edinburgh, exhibited superb tables of their specialities in Dahlias, Sweet Peas, Marigolds and many other flowers (gold medal). Dr. J. McWatt, Duns, showed Delphiniums, Primulas, Violas, &c. (bronze medal). A stand of many varieties of hardy flowers, &c., came from Messrs. Cunningham, Fraser and Co., Edinburgh (silver-gilt medal). Messrs. M. Campbell and Son, Blantyre, exhibited Carnations, &c. (bronze medal). Messrs. Webb and Brand, Saffron Walden, sent grand Hollyhocks. Mr. C. Engelmann, Saffron Walden, sent Carnations (silver medal). Mr. A. Thomson, Dean, received a bronze medal for new Chrysanthemums. Messrs. T. S. Ware, Limited, 1902, had a superb display of Begonias (gold medal). Messrs. R. Wallace and Co., Colchester, staged many fine Montbretias, Liliums, Gladioli, &c. (silver-gilt medal). The King's Acre Nurseries, Limited, Hereford, exhibited grand examples of fruit in pots (gold medal), and Messrs. John Forbes, Limited, Hawick, sent choice florists' flowers, &c. (silver-gilt medal). Messrs. A. Young and Co., Hatherley, Cheltenham, sent Carnations (silver medal). Messrs. William Cutbush and Son, London, set up one of their magnificent exhibits of hardy flowers, Carnations, &c., with Water Lilies in water (gold medal), and Messrs. Sutton and Sons, Reading, exhibited their superb strains of Asters and other flowers and vegetables in great variety (silver-gilt medal). Messrs. J. Fairley and Son, Rose-growers, Cairney Hill, Fife, showed Roses, &c. (silver medal), and Messrs. Young and Co., Elgin, received a bronze medal for Sweet Peas, &c., as also did Mr. J. Proctor, Portobello, for a group of Ferns, &c. Mr. M. Cuthbertson, Rothesay, had a group of Montbretias (bronze medal), and Messrs. Cocker and Son, Aberdeen, one of herbaceous plants (silver medal). A gold medal was given to Messrs. E. Webb and Sons, Stourbridge, for grand vegetables, &c., and a similar award went to Mr. R. Bolton, Carnforth, for a magnificent group of his new and other Sweet Peas, also to Mr. L. R. Russell, Richmond, for Tree Ivies, Clematises, &c. Messrs. Bunyard and Co., Maidstone, sent fruit trees in pots, for which a silver-gilt medal was awarded, a similar medal going to Messrs. G. Fairbairn and Sons, Carlisle, for Dahlias. Messrs. Gunn and Sons, Olton, received a silver medal for one of their fine tables of Phloxes and Violas, one going also to Mr. A. L. Gwillim, New Eltham, for Begonias, and to Messrs. Stuart Low and Co., Enfield, for Orchids, &c., these being very fine. Mr. R. Ferguson, Dunfermline, sent Roses (bronze medal), and Messrs. Mason and Co., Jamestown, Chrysanthemums, Carnations, &c. (bronze medal).

SPECIAL EXHIBIT.

An exhibit which attracted much interest and was of much value was that of a large number of Grapes from the gardens of the Royal Horticultural Society, Wisley. This included a number of varieties not generally cultivated, and a special award was made by the council.

NEW PLANTS.

The society gave first-class certificates to the following :

Montbretia Comet.—A seedling from Prometheus. This is a very large flower of deep orange yellow, with dark markings at the base, and it promises to be one of the best of the new Montbretias. From Mr. G. D. Davison, Westwick Gardens, Norwich.

Lathyrus latifolius magnificus.—A deep red variety of L. latifolius, with very large and handsome flowers in clusters, as in the type, but the blooms much larger. Also from Mr. Davison.

Rose Mrs. Chas. E. Allen.—A lovely delicate salmon pink Hybrid Tea Rose, apparently of much value. From Messrs. Hugh Dickson, Limited, Belfast.

Rose Mrs. F. Workman.—This lovely Hybrid Tea came from the same growers. The colour is a deep pink or rose, and the flowers are of fine form and substance.

Rose J. Ferguson.—A sport from Hybrid Tea Caroline Testout. From Mr. W. Ferguson, Dunfermline. Our correspondent was unable to find this Rose to describe it.

NATIONAL DAHLIA SOCIETY'S EXHIBITION.

THE first exhibition this year of the above society was held on Thursday and Friday, September 8 and 9, at the Crystal Palace. It was held in the Central Transept, and formed a brilliant display of colour. The weather was bright and sunny, and the competition in many classes was exceptionally keen, in one class as many as twenty exhibits being noticed. The arrangements of the show were conducted in a very satisfactory manner by Mr. G. L. Caselton and his staff, and there was a good attendance.

NURSERYMEN.

In the premier class for show Dahlias, forty-eight blooms, distinct, Mr. John Walker, Thame, secured first place, having some well-finished blooms of Purple Prince, Marietta, J. Walker, J. Cocker, W. Powell, Dante, Victor, Standard and others. Mr. S. Mortimer, Farnham, came second, and Mr. W. Treseder of Cardiff third. (Three entries.)

For twenty-four blooms of show Dahlias, distinct, M. V. Seale, Sevenoaks, took the lead, and was closely followed by Messrs. Keynes, Williams and Co. of Salisbury. (Two entries.)

For eighteen blooms of fancy Dahlias, distinct, Mr. John Walker succeeded again as first, among which the Rev. J. B. M. Camm, T. W. Girdlestone, W. Campbell, J. Forbes, Wm. Saunders and other good blooms were noticed, Mr. W. Treseder and Mr. S. Mortimer following as second and third respectively. (Three entries.)

For twelve fancy Dahlias, distinct, Messrs. Keynes, Williams and Co. were easily first, followed by M. V. Seale. (Two entries.)

In the class for twelve blooms of show and fancy Dahlias, intermixed, distinct, Messrs J. Cheal and Sons of Crawley took first with good examples of Chieftain, Duchess of York, Tom Jones, Warrior, Mabel, T. W. Girdlestone, &c., Messrs. W. Pemberton and Son, Walsall, being second. (Two entries.)

In the class for eighteen bunches of Cactus Dahlias, six blooms in a bunch, for which a silver challenge cup was offered, Messrs. J. Stredwick and Sons secured the coveted award with superb flowers, among which were to be seen the following varieties : Tokio, Arrow, Dr. Roy Appleton, Irresistible, Wm. Marshall, Indomitable, Mrs. Douglas Fleming, Golden Eagle, Viscount, Albatross and Crystal. Messrs. J. Burrell and Co. of Cambridge secured second, and Messrs. J. Cheal and Sons were third. (Three entries.)

For twelve varieties of Cactus Dahlias in bunches of six blooms, Mr. John Walker obtained first, M. V. Seale second, and Messrs. Keynes, Williams and Co. third. (Three entries.)

For forty-eight blooms of Cactus Dahlias, distinct, shown on boards, Messrs. J. Stredwick and Son again secured first honours with a well-finished, clean set of blooms, and were closely followed by Messrs. J. Burrell and Co. second, and Messrs. Keynes, Williams and Co. third. (Three entries.)

For twenty-four Cactus blooms, distinct, Mr. W. Tre of Cardiff obtained the leading award, prominent a whose flowers were to be found Harold Peerman, W Treseder, Rev. A. Bridge, Sunbeam, Clincher, Stormer Mr. John Walker was second, also with good blooms, Messrs. W. Pemberton and Sons third. (Five entries.)

In the class for decorative or garden Cactus Da twelve varieties, distinct, six in a vase, arranged with suitable hardy foliage or Grasses, M. V. Seale w good first with a most effectively arranged set, follow Messrs. J. Cheal and Sons second. (Two entries.)

For Pompons, twenty-four varieties, in bunch twelve blooms each, Mr. Charles Turner, Slough, obta first place, staging Bacchus, Adelaide, Cyril, Ideal, Ma Nerissa, Jessica and Montague Wootten in good Messrs. J. Cheal and Sons and M. V. Seale were second third in order of merit. (Three entries.)

For twelve varieties of Pompons in bunches of ten bl Messrs. J. Burrell and Co. secured first place with N Broomhead, Annie Doncaster, Lassie and Phyllis staged, followed by Messrs. Keynes, Williams and Co. Mr. John Walker respectively. (Three entries.)

For twenty-four bunches of single Dahlias in t Messrs. J. Cheal and Sons obtained first with Sunray, K Snowdrop, Hector, Leslie Seale, Brilliant and Lady Bo ful in good form. M. V. Seale was second. (Two entr

For twelve varieties of single Dahlias, in tens, Mr. J Walker was the only entrant, and was awarded first p

Pæony-flowered Dahlias were more to the fore tha past occasions, there being five entries. Mr. Cha Turner was a good first with fine vases of Geisha, Ros Bella Donna and Bayard. Messrs. J. Cheal and Sons second, and Mr. John Walker third.

AMATEURS.

In the leading class for show and fancy Dahlias, twe four blooms, distinct, Mr. S. H. Cooper, The Ham Chippenham, secured the challenge cup which was offe in addition to a money prize. Mr. G. Densley, Bris was second, and Mr. G. Boothroyde third. (Seven entri

For twelve show Dahlias, distinct, Mr. S. H. Cooper again first ; Mr. A. Robbins, Keynsham, second ; and William Marks, Rownham, Southampton, third. entries.)

For six blooms of show Dahlias, distinct, Mr. Cha Luckin, Apsley, was first, Mr. John Cousens second, Mr. A. P. Ironsides, Chippenham, third. (Three entries

For twelve blooms of fancy Dahlias, distinct, Mr. S. Cooper secured first with some nice clean blooms. second prize was not awarded, Mr. G. Buss taking th (Two entries.)

For six fancy Dahlias, distinct, Mr. John Cousens t first, Mr. G. Densley second, and Mr. A. Robbins th (Six entries.)

For six vases of garden Cactus Dahlias, distinct, blooms in each vase, arranged with hardy foilage, Gras &c., the Rev. Arthur Bridge obtained the Crystal Pal Silver Challenge Cup and first prize, Mr. E. E. Barton Brand Street, Greenwich, taking third. (Two entries.

The silver challenge cup offered for nine varieties Cactus Dahlias, in bunches of three blooms, was a obtained by the Rev. Arthur Bridge, followed by Mr. Grinsted and Mr. C. Luckin as second and third respectiv (Ten entries.)

Mr. W. E. Peters was awarded the President's Sil Medal for Satisfaction, the best bunch of any one vari shown in the nine and six bloom classes.

In the class for six varieties of Cactus, in threes, F. H. Curry, Palmer's Green, obtained first, Mr. Edw Mawley second, and the Rev. G. Twentyman (garden Mr. W. Lockyer), third. (Seven entries.)

For twenty-four blooms, Cactus, distinct, Mr. H. Peerm secured first prize and the Crystal Palace Silver Me with a clean, well-grown set of blooms, including Mrs. Grinsted, Ivernia, Advance, Johannesburg and Thon Parker. Mr. M. W. Dance, Abbotts Ann, was seco and Mr. J. Bryant, Salisbury, third. (Ten entries.)

Messrs. Dobbie's Gold Badge for twelve varieties Pompon Dahlias, in sixes, was secured by Mr. A. P. Ir sides of Chippenham. (Four entries.)

Mr. Edward Mawley secured the gold medal offe by Messrs. J. Cheal and Sons for four varieties of sin Dahlias, distinct, twelve blooms in a vase, arranged effect with hardy foliage. The varieties shown w Columbine, Amy, Rosebank Scarlet and Winona.

OPEN.

The open class for six blooms of Cactus Dahlias, variety, shown on boards, produced a record entry for t society, there being twenty competitors, including b trade and amateur growers. Mr. S. Mortimer secu first with C. E. Wilkins ; Mr. F. H. Curry, second, w Harold Peerman ; and Messrs. Keynes, Williams and third, with Gwendoline Tucker.

Other classes in this section included Pompon, Cact singles, fancies, also baskets, vases and bouquets, wh were well contested.

TRADE DISPLAYS.

The following awards were made to non-competiti exhibits : Large gold medal to Hobbies, Limited, Dereha for Dahlias and Roses ; and Mr. H. Cannell and Sons, Dahlias. Gold medals to Messrs. T. S. Ware (190 Limited, for Dahlias ; and Mr. J. T. West, Brentwood. Dahlias. Silver-gilt medals to Mr. Charles Turner, Slou for Pæony-flowered Dahlias ; Mr. Frank Brazier, hardy plants ; and Mr. J. E. Knight, Wolverhampt for Dahlias. First-class certificates were awarded Messrs. J. Stredwick and Son for Cactus Dahlias Dr. R Appleton, New York and Onward, also for garden Cac Sweetbriar ; to Mr. Charles Turner for garden Cac Dahlia Minerva ; to Messrs. J. Cheal and Son for sin Dahlias Cardinal and Mrs. Joynson Hicks, also for Pomp Dahlia Glow.

THE GARDEN.

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CONTENTS.

HE AUTUMN ROSE SHOW 469
oodland flowers in autumn 469
OTES OF THE WEEK
Forthcoming events 470
The National Vegetable Society's Exhibition 470
National Hardy Plant Society .. 470
ORRESPONDENCE
New Roses of the year 471
Nepeta Mussinii .. 471
Campanula Vidalii 471
ARDENING OF THE WEEK
For the South and South Midlands.. 471
For the North and North Midlands.. 471
REENHOUSE
Allamanda grandiflora 472
Bouvardias in the greenhouse 472
UIT GARDEN
Gross growth in hardy fruit trees 472
FLOWER GARDEN
The Peacock Iris .. 473
A beautiful annual for cutting 473
Sweet Pea chat .. 473
The Madonna Lily 474
The Alpine Flax .. 474
COLOURED PLATE
Some new Narcissi 474
ROSE GARDEN
New Roses of the year 475
GARDENING FOR BEGINNERS
Garden work week by week 476
Increasing the Pentstemons 476
Azaleas 477
Arum Lilies 477
THE TOWN GARDEN.. 477
"Holland in Ireland" 478
New plants 478
Editor's Table 479
ANSWERS TO CORRESPONDENTS
Flower garden .. 479
Rose garden 479
Fruit garden 479
SOCIETIES 480

ILLUSTRATIONS.

rysanthemum inodorum Bridal Robe 472
e Peacock Iris in a South Devon garden 473
e Madonna Lily and Roses 474
me new Narcissi .. .. Coloured plate
e Alpine Flax in the rock garden 475
ow to propagate the Pentstemons 476, 477
me of the Tulips at "Holland in Ireland" 478

EDITORIAL NOTICES.

Every department of horticulture is represented in THE RDEN, *and the Editor invites readers to send in questions uting to matters upon which they wish advice from coment authorities. With that object he wishes to make "Answers to Correspondents" columns a conspicuous ture, and, when queries are printed, he hopes readers l kindly give enquirers the benefit of their assistance. communications must be written clearly on one side y of the paper, and addressed to the* EDITOR *of* THE RDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, he will not be responsible for their safe return. All sonable care, however, will be taken, and where stamps enclosed, he will endeavour to return non-accepted tributions.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE AUTUMN ROSE SHOW.

THE exhibition of autumn Roses held in the Horticultural Hall, Vincent Square, Westminster, on Thursday of last week under the auspices of the National Rose Society demonstrated in a remarkable manner the wonderful development that has taken place among the Queen of Flowers during the past ten or fifteen years. The magnificent bank of blooms staged in Class 11 by our leading Rose specialists was a rare testimonial to the value of the Rose in autumn, and the vast array of flowers, occupying as it did the entire length of the large hall, created a floral picture that was as interesting as it was fair. Although it is not many years since the term "autumn-flowering" began to be freely used by growers of Roses, it is now scarcely comprehensive enough for such varieties as General Macarthur, for they give us their first blooms in June, and well-grown bushes are seldom without flowers from then onwards until severe frosts put a stop to their floriferousness.

The value of this what may well be termed new race of Roses can scarcely be over-estimated, and it is a wise policy from several standpoints for the National Rose Society to hold an exhibition in the autumn. The display this year was, we think, the best that has ever been seen at an autumn show, and, coming as it did just previous to planting-time, enabled visitors to select those varieties which most appealed to them for almost immediate planting. It is true that such selections had to be made with a certain amount of caution, because, in a few instances, flowers that had been opened under glass were shown, and these of varieties that are practically useless for flowering under natural conditions in the autumn. Such blooms, no doubt, added much to the beauty of the exhibition, and no reasonable objection could be raised against their inclusion providing it was made quite clear to the public that they had been grown under artificial conditions.

Taken as a whole, the quality of the flowers was high, though mildew was rather too conspicuous in a few instances. The class for Rose fruits might have been better filled, as this is a phase of Rose culture that has hitherto been somewhat neglected. Even when the latest flowers have departed, the brilliant heps of some of the rugosas and other species give a touch of colour to the garden, and add interest to the landscape when naked stems and bare soil are all too prevalent.

Some excellent new seedlings were shown, one that appealed to us chiefly on account of its fragrance and even contour being Mrs. Herbert Stevens, a creamy white Tea variety that will no doubt take the place of White Maman Cochet. As a full report of the exhibition is given on another page, it is not necessary to refer to it more fully here except to congratulate the committee on getting together a very beautiful, well-arranged and interesting display of flowers.

WOODLAND FLOWERS IN AUTUMN.

NARCISSI and other bulbous plants, grown naturally in the woodland and shrubbery, have done much to popularise outdoor gardening, for these plants create the maximum amount of beauty at the minimum of cost, and many an otherwise uninteresting area of ground has been turned into a fairyland by the inclusion of the commoner bulbs. All this, however, applies to spring, and we naturally desire to produce some inexpensive method of dealing with the same kinds of situation during autumn so as to obtain as much beauty as possible from the wilder parts of the garden and woodland before the cheerless days of winter appear. True, we may turn to the late-flowering shrubs for assistance, and for large, informal masses we have nothing to beat the various kinds of Heather, Ling and Gorse, while the showy fruits of many trees and shrubs add considerable interest to the scene. Furthermore, we have brilliant-coloured foliage on every hand, but, with the exception of the fruits, we may say that we had all the others in spring, previous to the wholesale planting of bulbs, for there are infinitely more shrubs in blossom during spring than during autumn, while the beautiful, tender tints of the young leaves are quite as beautiful as the more gaudy colouring of autumn.

The question arises, then, as to what we are to use, for we have not our hosts of bulbous plants to fall back on, and the answer must be, the commoner herbaceous plants. It would not, however, do to select these plants indiscriminately, for many would be decidedly out of place. Those only will do which are naturally adapted to woodland scenery on the one hand, and that are capable of resisting the impoverishing effect of tree roots, to some extent, on the other. Florists' flowers are not to be encouraged for woodland planting or for positions near a natural-looking piece of water, and plants of the Dahlia class would look absurd in such places. It is, however, possible to include such plants as groups in shrubberies, though even then examples of the Michaelmas Daisies or perennial Asters look

more in place, and Dahlias, Pentstemons and the like ought not to be overdone. Planted in large masses in open woods the various kinds of Aster have much to commend them, while the Solidagos, Helianthuses and Chrysanthemum maximum are all excellent.

Anything like a formal arrangement of the plants must be avoided, and the more natural the masses can be made to appear the better. Staking is not necessary, and some of the most effective groups are seen when the stems of Asters and Sunflowers have fallen to the ground, and the side shoots laden with flowers rise at varying heights throughout the masses. In damp places the Chinese Senecio Clivorum might well be introduced, while it is specially well-suited for the margins of a lake. Lythrum Salicaria, the Purple Loosestrife, is another showy subject for use near the margin of a pond or for a swampy place in an open position elsewhere. In a position more nearly approaching the highly cultivated parts of the garden the brilliant-coloured Kniphofias may well find a home, not so much in the form of groups of two or three plants, but as large expanses where the flower-heads will number hundreds instead of tens. Anemone japonica and its white form are fitting plants for woodland, lakeside or shrubbery, and blossom well for a considerable period, but to be seen at their best they must be grouped with an unstinting hand. For groups in the shrubbery, numbers of suitable subjects will suggest themselves; some of the later-flowering Veronicas, Senecios, Asters, Salvias and what not may all be requisitioned.

Annuals need not be excluded, and very effective groups of the Chinese Callistephus hortensis have occasionally been noted. This planting of autumn-flowering herbaceous plants gives more trouble than the cultivation of bulbs in grassland or shrubbery, for to keep them in good health it is necessary to lift them at least every second year, divide them and manure the ground, else, between the crowding of the growths and the impoverishment of the ground through the combination of their own roots and the roots of surrounding trees, they will not give really good results for more than two years in succession. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 27.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m. Lecture at 3 p.m. on "South America in its Relation to Horticulture," by Mr. A. W. Hill. Wood Green Dahlia Show.

September 28.—National Vegetable Society's Exhibition of Vegetables, Horticultural Hall, Vincent Square, Westminster, 1 p.m. to 8 p.m.

The National Vegetable Society's exhibition.—As will be seen by an announcement in our advertisement pages, this society will hold its first annual exhibition of vegetables in the Horticultural Hall, Vincent Square, Westminster, on Wednesday next, the 28th inst., from 1 p.m. to 8 p.m. This exhibition promises to be one of the most comprehensive and interesting displays of vegetables ever seen in this country. The entries received are very numerous indeed, and the committee expect the large hall to be well filled. In addition to ordinary kinds of vegetables, there will be many rare and little-known kinds on view. Fellows of the Royal Horticultural Society will be admitted free on showing their tickets.

The British Pteridological Society.—The result of publishing a quarterly journal dealing with matters of interest to lovers of British Ferns has been most satisfactory, the membership having been quintupled since the first number appeared, and at present there are 130 members. The journal, *The British Fern Gazette*, has met with great appreciation, not merely here, but also in Europe, the United States and British Columbia, and the British Pteridological Society therefore, as now constituted, occupies a worthy position among horticultural and botanical societies generally. At the last annual meeting, owing to the resignation of Mr. G. Whitwell, who had been the hon. secretary from the outset, Mr. Druery undertook the secretaryship, as well as the editorship of the *Gazette*, and in that capacity is prepared to send a specimen number to any lady or gentleman desirous of joining the society. His address is 11, Shaa Road, Acton, London, W. The subscription, as hitherto, is 5s. per annum, entitling to membership and four issues of the *Gazette* in question.

Messrs. W. J. Unwin and Horace J. Wright.—We learn, on good authority, that Mr. W. J. Unwin, Histon, Cambs, has purchased the Sweet Pea business established by Mr. Horace J. Wright. The latter's duties as sub-editor of the *Agricultural Economist and Horticultural Review* have become more onerous, and the volume of work in connection with the Bureau of Information, established under Mr. Wright's management, has increased so much that proper attention could not be given to the business; hence, we understand, the change that has been made.

United Horticultural Benefit and Provident Society.—The usual monthly meeting of this society was held at the Royal Horticultural Hall, Westminster, on Monday, September 12, Mr. Thomas Winter in the chair. Six new members were elected. The amount of sick pay since the last meeting was £29 14s. The whole amount paid this year is considerably less than last year up to the same date. The annual dinner will be held on October 6 at the Waldorf Hotel, Aldwych, W.C. Edward Sherwood, Esq., has kindly consented to preside on this occasion, and it is hoped that many members and friends will attend.

North British Railway station gardens.—The North British Railway directors have issued the awards made by the judges for the best-kept stations and gardens on their system. They are divided into four classes, there being a large number of prizes in each, those in the first class receiving £4 each, those in the second £3, the third £2, and the fourth £1. We give the names of the stations and agents in the first class. Many of the North British Railway stations are carefully kept, and the gardens have been admirably managed during the season, their brightness having been recognised by many of those who have had occasion to travel by the railway. The first class consists of: Alva, Mr. Blackwood; Armadale, Mr. Nairn; Barrasford, Mr. Milligan; Burgh, Mr. Ferguson; Cauldcote, Mr. Napier; Chirnside, Mr. Turnbull; Cupar, Mr. Stewart; Duns, Mr. Bell; Edrom, Mr. Brydon; Helensburgh, Mr. Stevenson; Hillfoot, Mr. Grant; Kinross Junction, Mr. Hand; Marchmont, Mr. Scott; Middleton, Mr. Armstrong; Row, Mr. Spiers; St. Monans, Mr. Renton; Slamman, Mr. Wann; Strathblane, Mr. Cuthbertson; Summerston, Mr. Murdoch; and Winton, Mr. Waterston.

The Countess of Wemyss on sweet-scented Roses.—At the opening of the show of the East Lothian Horticultural Society in the Corn Exchange, Haddington, on September 9, an interesting speech was made by the Countess of Wemyss, who opened the exhibition. Her ladyship offers a prize annually for the sweetest-scented Rose, and she referred to this in the course o speech. She said that she understood that people laughed at her for giving a prize for sweetest-scented Rose, thinking that it woul difficult to distinguish the best among so m sweet-scented Roses. Shakespeare's saying that "A Rose by any other name would s as sweet," but he had not the advantage of li in these days. Frau Karl Druschki had no and therefore the Rose of this particular name not smell as sweet. She thought the scent Rose was certainly three-parts of the flower. Rose was nothing to her if it had not a perfu Lady Wemyss's remarks were received with evid approval by the audience, and were hear applauded.

National Hardy Plant Society During the Royal Caledonian Horticultural Show Edinburgh a meeting of persons interested hardy plants was held. Mr. Macself presided, a the secretary and the treasurer of the society w also present. The meeting was well attended, a a number of apologies were read from pers who were unable to attend, promising their suppo The chairman explained the objects of the socie and invited the meeting to express an opinion to the desirability of including annuals within t scope of the society. After a most interesti discussion the meeting decided that it was n desirable to include annuals. A discussion th took place as to the amount of the annual subscri tion. The chairman thanked the meeting for th expressions of opinion, which, he stated, would of great assistance to the provisional committ in framing the constitution of the society. M Bouskell and Mr. Brunton also addressed t meeting. The following were elected members the provisional committee to represent Scotland Mr. M. Todd, Mr. Brydon, Dr. McWatt and M Kidd. The meeting terminated with a vote thanks to the chairman.

International Conference on Genetic In pursuance of the decision taken by the confe ence held in London in 1906, the next Internation Conference on Genetics will be held in Paris fro September 18 to 23, 1911, under the auspices ar in the rooms of the Société Nationale d'Horticultu de France, and under the patronage of an influenti committee. The programme of this conferen includes not only all the problems connected wit Mendelian heredity, but also all the questions variation, mutation and, in general, everythi pertaining to the transmission of characters living beings. The secretary is M. Philippe de Vilmorin, 66, Rue Boissiere, Paris.

CORRESPONDENCE.

(The Editor is not responsible for the opinion expressed by correspondents.)

The present year and gardening.—Having read "Fircroft's" letter in THE GARDEN f August 27 (page 423) about this season, I a sending you a few remarks about a garden i Hampshire. This garden lies high, but I have n cause to complain. Irises did very well, als Gladioli. Violas and Pansies have been a lovel sight. The Sweet Peas (from Sydenham's) hav been the admiration and envy of my neighbours they have been up to 13 feet or 14 feet high, an have lasted for many weeks in bloom. Asters an Roses have done well; the ramblers have bee very beautiful not only in my garden, but a around. Pinks and Carnations have been good and Hydrangea paniculata is lovely. Tulips di not do very well in the spring, but Hyacinths wer most successful. The bedding Geraniums ar splendid, though rather late.—L. STRONG.

New Roses of the year. — Now that the planting season is drawing near, might I appeal to amateurs who do not grow for showing to give their experiences of the newer Roses, and so, while saving waste of money, help us in making our autumn selections. In my little garden Lady Ursula, G. C. Waud, Mme. S. Weber, Souv. S. Gray, Lyon Rose, Laurent Carle, F. E. Coulthwaite and Molly S. Crawford all do well; but the following, from different causes, are not satisfactory: Lady H. Vincent, Mrs. H. Brocklebank and Mrs. Dudley Cross. The flowers of Lady Hillingdon are thin. Instead of Joseph Lowe, when all is taken into account I prefer to grow Mme. Abel Chatenay. I am thinking of adding this autumn Mrs. A. Tate, White Killarney, Juliet, Theresa, His Majesty, Mrs. Foley Hobbs and Lady Pirrie, and should be glad to hear of any opinions for or against them.—WEST WORTHING.

Nepeta Mussinii.—I was particularly interested in the note from E. M. Whitehead, Abergavenny, which appeared in THE GARDEN for August 20 respecting that pretty Cat-mint, Nepeta Mussinii, one of my favourite plants, as I cannot induce it to grow here at all. I have purchased good clumps of it both in spring and autumn, and tried it in different borders. Of six plants put in last autumn not one survived the winter. Three put in a group during the spring of 1909 did well that summer, and were beautiful. I thought they were doing well this year, but the foliage looked peculiar; a huge clump formed, and when this bloomed it proved to be the common wild Speedwell luxuriating in a rich border. This is a mild climate; for instance, the Scented Verbena (Aloysia citriodora) grows in the open and makes large bushes. The Cat-mint was all put in sunny borders. Plants akin to it do well—Red Bergamot is rampant, annual Salvia Bluebeard grows like a weed, and Salvia patens lives year after year without attention. Can anyone advise me as to Nepeta Mussinii? I have no rock garden.—F. ROBINSON, *Hants.*

Campanula Vidalii.—Readers who are interested in this distinct Bellflower will thank the Editor for the illustration of Campanula Vidalii, with the admirable note upon it from Mr. E. H. Jenkins. It is all the more valuable, as occasionally the unwary are tempted to purchase a plant in the belief that they may consider it hardy. As Mr. Jenkins says definitely, it "has no pretensions to complete hardiness," yet we are inclined to test this for ourselves from time to time in the hope that some special climatic conditions may be favourable to this truly ornamental plant in our gardens. Years ago I tried it outdoors in a garden by the sea in a district unusually favourable to tender flowers, and the result may be of interest as supplementing and confirming the note of your contributor. A small specimen was planted in a sheltered, sunny place in the garden, protected from all cold winds and in a sandy soil, the whole conditions being as favourable as possible. It was planted in spring, and throve well during the summer, giving some of its unique flowers. The following winter was an unusually mild one, and in consequence the plant withstood its tempered severity and flowered the following summer. The next winter, however, which may be called an average one, it succumbed to a spell of hard January weather. From one's previous knowledge of C. Vidalii the loss was quite anticipated, yet it came with regret, such a handsome plant being worthy of growth in the garden if hardy. It is very distinct in all its aspects, but it is unnecessary to detail these as Mr. Jenkins has done so clearly. As a summer bedder or specimen plant it is handsome in the garden, while in the greenhouse it is universally admired by those who come across it there.—S. ARNOTT, *Sunnymead, Dumfries.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

PEACHES AND NECTARINES.—In houses where hard forcing is carried on it often becomes necessary to replace the older trees with young ones, and the end of this month is an excellent time to do the work. It is always the best practice to replant with the foliage on the trees. In many gardens the system of growing outside a certain number of trees especially for this purpose is adopted. The work of lifting and replanting must be carefully accomplished if good results are to be obtained. The trees should be thoroughly soaked three or four days before lifting, and must be taken up with a good ball of soil attached. The hole that is to receive the tree should be taken out large enough to allow a good quantity of fresh soil to be added. This may consist of good fibrous loam, with old mortar rubble added, and should be well worked round the ball. The small fibrous roots that have been retained outside the ball must be carefully laid out flat in the new soil. After planting a good watering will be required, and the tree must be frequently syringed. Shade with a sheet of tiffany.

HARDY FRUITS.

Strawberries.—Newly made beds should have the surface frequently stirred with the hoe and all runners removed from the plants as soon as they appear. Older plants may have all decayed foliage and runners trimmed off and the soil between slightly broken with the fork.

Apples and Pears.—Care must be exercised in the gathering and storing of the above if a good supply of sound, first-class fruit is to be maintained. Pears are easily bruised, and when this happens they are useless. Beurré Bachelier, for instance, has especially tender skin, and requires special care. In many cases it is necessary to gather part of the fruit on one tree earlier than the other. No hard-and-fast rule can be laid down as to when each variety is to be gathered. However, if by giving the fruit a gentle pull in an upward direction it parts readily from the spur, then it is time to gather it.

Peaches and Nectarines.—These are best gathered slightly under-ripe, when they are not quite so susceptible to bruising. Trees that have been cleared of fruit should have all the loose shoots tied in, cutting out some of the old fruiting wood to allow the young plenty of room to ripen. If the borders are at all dry, afford them a thorough soaking. Where trees are dirty, a few syringings with some approved insecticide will usually clean them.

KITCHEN GARDEN.

Cauliflowers.—Seed sown as advised last month will, by this time, have produced plants large enough to transplant either into frames or to sheltered borders. When planted in frames they must not be coddled in any way, but allowed full exposure on every possible occasion. Those on borders should be put out in such a way as will allow hand-lights to be placed over them.

Beetroots.—Large, coarse roots should be avoided, and as soon as they attain a fair size lift and store in ashes in a dry shed. Cheltenham Green Top, one of the best for flavour, is liable to make very large roots when left too long in the ground. Dell's Crimson and similar varieties may remain till later.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS UNDER GLASS.

HOUSING CHRYSANTHEMUMS.—As a general rule it is safest now to have the bulk of these housed. Even if frosts hold off there is always the chance of serious damage by rough gales. Of course, some of the plants intended for late work may still be kept outside, but a watchful eye should be kept on them to ensure that they receive no damage from wind or frost. Before housing remove all dead leaves from the plants, and weeds and suckers from the pots, also thoroughly scrub each pot before carrying it under cover. If at all possible, the house the plants are to occupy should be washed down before housing starts. Give the plants as much room as can be spared, for crowding is sure to cause loss of foliage and attack by mildew. Throw all ventilators and doors wide open, and leave them so night and day during the next few weeks, unless hard frosts or heavy gales are feared. Syringe the plants lightly every evening for the first fortnight and do not over-water at the roots. Leave off all stimulants for ten days after housing.

Housing Other Plants.—Many of the plants growing in frames, such as Cyclamen, Cinerarias and Primulas, will now be far better in their winter quarters. Give no fire-heat for a few days, but an abundance of air, and if sunny afford shade, or the plants may receive a serious check. If not already done, the other greenhouse plants stood outside during summer should also be taken indoors. Wash pots of these also, and syringe each afternoon for a time so as to gradually inure the plants to the drier atmosphere of a glass house.

COLD FRAMES.

Calceolarias.—While there is no particular hurry to have the cuttings of bedding Calceolarias taken, it is best to be prepared, as frost sufficiently hard to damage the tender points may come on us at any time now. It is usual to insert cuttings of this plant in beds of light soil made up in a frame. Those with limited accommodation may with advantage use boxes of convenient size and 4 inches deep. When this is done much time is often saved, as the cuttings can be got in during bad weather, and again in spring the boxes can easily be moved to make room for less hardy plants. Whichever method is followed, the careful shading of the cuttings is imperative.

Roman Hyacinths.—The earliest batches of these will now be ready for removal from the plunge. Set in a frame and keep close and shaded for a few days. Afterwards admit all light possible and give a little air on fine days. In due course they will be in fine order for forcing in earnest, their sojourn in the frame being a great aid to sturdy, healthy growth.

Border Carnations.—Layers will now be well rooted, and should be lifted and potted, or planted in a frame. This is the safest plan with these plants in our Northern gardens. Potting up into 3-inch or 4-inch pots, using a fairly good compost and making very firm is the most satisfactory method in the end. Plunge the pots to the rims in coal-ashes in a frame, and only run on the sashes when it rains.

KITCHEN GARDEN.

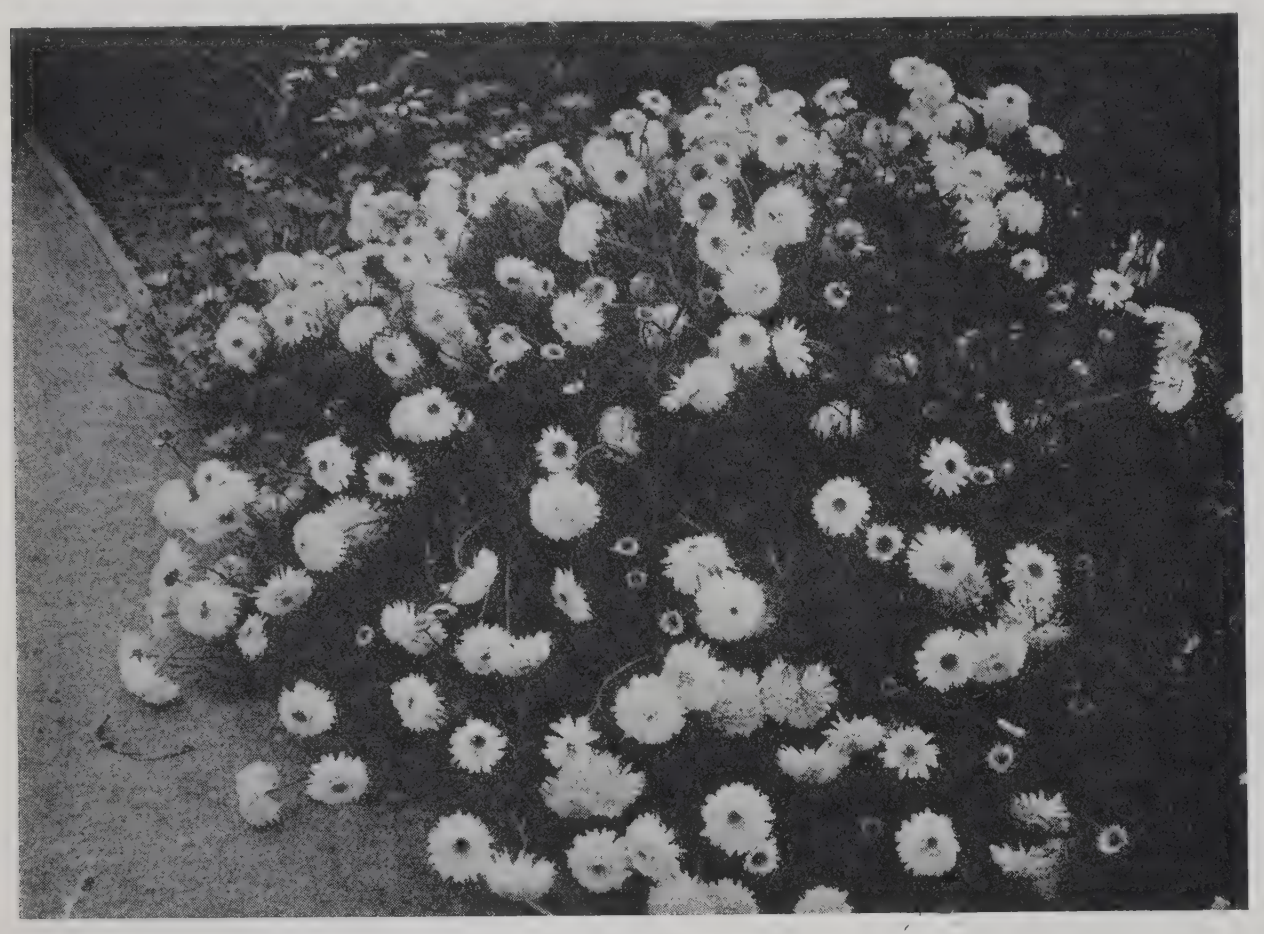
Potatoes.—Even the latest garden Potatoes should now be ready for digging and storing. Select a dry day for the work, as tubers lifted very wet are always of inferior table quality. Select fine-shaped, medium-sized tubers for seed, and lay out in shallow boxes to "green" before storing in a frost-proof shed or cellar.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE GREENHOUSE.

ALLAMANDA GRANDIFLORA.

PROMINENT among a varied collection of plants shown by a well-known firm at the meeting of the Royal Horticultural Society on August 30 was a delightful group of well-flowered examples of this charming and distinct Allamanda. To those accustomed only to the strong-growing kinds, such as Allamanda Schottii and A. Hendersonii, this species would be scarcely recognised as a member of the same genus. Compared with these A. grandiflora is of a dwarf, compact habit, the slender shoots being clothed with small, thin leaves, while the flowers, only a little less in size than A. Hendersonii, are of a soft lemon yellow. At Kew this Allamanda is grown as a rafter plant in the intermediate portion of the T range, and is there an object of beauty throughout the greater part of the summer and well on into the autumn. At one time this Allamanda was generally propagated by grafting on to one of the stronger-growing forms; but the plants mentioned above were all on their own roots, as in this way dwarfer examples can be obtained. In any selection, however rigid, of warm-house flowering plants this Allamanda must have a place, as it is so beautiful and continuous flowering. It is by no means a novelty, for it was first discovered in Brazil by the collector Gardener, who sent seeds of it to the Comely Bank Nursery in Edinburgh in 1836, and it was afterwards distributed therefrom. In the days of large specimen plants this was often grown, but twenty years or so ago it became exceedingly scarce. Of late, however, I have met with it more frequently.



AN ANNUAL FOR CUTTING: CHRYSANTHEMUM INODORUM BRIDAL ROBE. (*See page* 473.)

BOUVARDIAS IN THE GREENHOUSE.

THE Bouvardias form a very beautiful class of plants for the embellishment of the greenhouse in late summer and early autumn, when the beauty of many indoor subjects is on the wane. Generally speaking, Bouvardias, in many gardens at least, have their merits overlooked, one probable reason being the present-day tendency for very large blossoms of all kinds. In this respect Bouvardias cannot, of course, compete with most of their associates, but for quiet, refined beauty they are unsurpassed. In some cases, too, they are spoken of as difficult subjects to cultivate, but in reality this is not so, for cuttings of the young growing shoots root in early spring as readily as those of a Fuchsia, and, given much the same treatment, the plants will grow away freely. In the days gone by, when large flowers for the button-hole such as may be seen at the present time were rarely met with, Bouvardias were very popular for the purpose, and I must confess even now, perhaps for old association sake, to a pronounced leaning that way.

Those who regard Bouvardias as somewhat difficult to cultivate would be agreeably surprised to see the enormous quantity in Messrs. Veitch's nursery at Feltham, for the whole of the plants are in robust health. A selection therefrom was shown at the meeting of the Royal Horticultural Society on August 30, and attracted a considerable amount of attention. Conspicuous among those shown were President Cleveland, vivid scarlet, the best of its colour; Mrs. Robert Green, light salmon pink, a sport from President Cleveland, of which, except in colour, it is a counterpart; Pride of Brooklyn, pure white; The Bride, slightly tinged with blush; Jasminiflora paniculata, large, pure white, sweet-scented flowers; King of Scarlets, a large flower, scarlet, with a white tube; Roi des Roses, deep pink; Maiden's Blush, soft pink; and Vreelandii, white.

It is strange that the limited few mentioned above should have originated under cultivation in widely different parts of the world, for President Cleveland, Pride of Brooklyn, The Bride and Vreelandii came from the United States of America, King of Scarlets was raised in Australia, and some at least of the others were obtained in this country. In any note on Bouvardias Humboldtii corymbiflora must not be passed over. This is characterised by clusters of very long-tubed, pure white flowers, of a most delicious fragrance. It can be obtained in flower earlier than the others, and is often bedded out during the summer. H. P.

THE FRUIT GARDEN.

GROSS GROWTH IN HARDY FRUIT TREES.

I HAVE never noticed such strong growths on bush fruit trees, the Apple especially, as there is this season, and the trained trees of Pears and Plums on walls are also making a lot of useless wood that it will be necessary to remove and so admit sunlight to the wood that is to bear fruit next season. In many parts of the country, though the rainfall has not been excessive, there has been frequent showers and less sunshine than usual, and the result is luxuriant growth. To a great extent this has been aided by a thin crop of fruit. Much may be done at this season to assist the trees by thinning out weak, useless wood, and I would also thin out freely the centres of the trees. By so doing the spurs and fruit-buds are enabled to ripen for the ensuing season's work.

I am aware in many gardens, where the trees are trained in various forms and often planted somewhat close together, there is what may be termed severe summer pruning each year. This system I do not at all agree with. I know that often the cultivator has no other course open; the trees must only occupy a certain space and they must be kept trim and presentable. The result is that they are often more ornamental than profitable. This is not the sort of pruning I advocate, but thinning out crowded branches, opening out the centres of the trees and admitting light. I do not believe in shortening back growths all over the trees, as is frequently done, as this promotes a mass of non-fruiting wood. I admit my advice as regards cutting out useless wood when followed does not always commend itself to those who study mere shape and appearance, but even when a tree is properly thinned it is by no means unpresentable. To get really good fruit there must be a certain amount of freedom, and crowding must be avoided. For many years I have proved the value of thinning out bush Apples, Pears, Plums and other hardy fruits. Of course, even branch-thinning in many cases will not suffice, and root-pruning may be necessary.

As most who cultivate hardy fruits know, the various kinds of Apples and Pears differ considerably in their habit and growth. With some of the strong growers, such as bush trees of Blenheim Orange, root-pruning is an absolute necessity, and this also applies to others of a similar nature which are, in a young state, inclined to make much wood and give few fruits. By early root-pruning the trees quickly form fruit-spurs, and in such cases my advice as concerns thinning out would not suffice. It is the same with bush fruits that are required to be kept shapely in borders near walks in kitchen gardens.

Wall trees require more attention in this respect than others this season, especially Plums, and some of the best varieties, such as Oullin's Golden Gage, Transparent Gage and Bryanston, have made much wood. In such cases I would advise root-pruning in October, and young trees only just filling in the wall space that have made gross terminals I would lift and replant, doing this work just before the leaves fall, and when replanting place a liberal quantity of burnt refuse or fine mortar rubble under and over the roots. G. WYTHES

THE FLOWER GARDEN.

THE PEACOCK IRIS.

MORÆA or Iris Pavonia is an extremely lovely flower, but not much like an ordinary Iris in form, as the broad petals stand out almost horizontally. The colour of the petals is white suffused with a suspicion of faint blue, but the chief beauty of the flower is the rich blotch of sky blue at the base of each broad petal, which, in contrast to the white ground, is very charming. The Peacock Iris luxuriates in the open air in Guernsey, and in the South of England it will often do well in the open in free, sandy soil and in a good position in a sunny rock garden. It is quite a gem among the smaller Irids, and a colony in full bloom presents a remarkably beautiful picture.

My experience with it has been somewhat remarkable, as it has succeeded where many other Irises have failed. I have a raised border facing south-west and backed by a wall, which protects it entirely from the north and east. This border is composed of peat, loam and leaf-mould mixed with a large proportion of rough grit and powdered mortar. I imagined it an ideal spot for bulbous Irises, and obtained a dozen bulbs of several species, such as I. persica, I. Histrio, I. histrioides, I. reticulata, I. rosenbachiana, I. Tauri, I. warleyensis and others, and planted them carefully, surrounding each bulb with silver sand. They at once began to deteriorate, and now, instead of the 200 plants that ought to be there, only about half-a-dozen are left. I. Pavonia, however, throve from the first, so I increased the number of bulbs to 100, and they bloom freely every year.

The flower lasts three days, but there is a succession of three or more on every stem, so that the plant remains in bloom for some time. It is a native of South Africa, whence it was introduced into this country in 1776. The leaves of the Peacock Iris are long and narrow, and they appear in the winter. In the colder districts it must be grown under glass, and, planted along with and treated the same as Ixias and similar Cape bulbous plants, it never fails to grow and flower freely. The only difficulty is in keeping the bulbs when they are dormant If the pots containing them are placed in a dry, sunny frame as soon as the leaves begin to fade and are kept quite dry, so that the bulbs may be well baked, they are not likely to perish. They usually push up new growth in January, when they should be examined, top-dressed if they require it, and watered moderately. A position where they will get all the direct sunlight possible, plenty of fresh, dry air and a greenhouse temperature will be found most suitable for them. Six full-sized bulbs are enough for a 6-inch pot. A potful of plants of the Peacock Iris when in flower in May or June is one of the most charming pictures it is possible to imagine. There are several varieties of Moræa Pavonia, two of which are villosa, which has bright purple falls and a rich peacock blue spot at the base of each, and lutea, with golden yellow falls.

WYNDHAM FITZHERBERT.

A BEAUTIFUL ANNUAL FOR CUTTING.

(CHRYSANTHEMUM INODORUM.)

I HAVE grown the new variety of this plant, known as Bridal Robe, this season very successfully, and find it a great improvement on the old type. The seed was sown in March last in a cool greenhouse, and the plants were placed in their flowering quarters in May. They are now simply crowded with pure white blossoms (as may be noticed in the illustration on page 472), many of which measure from 2 inches to 2½ inches in diameter. For cutting it is excellent, as the flowers last well in water, and from a few plants one may get a continuous supply for a long period. They are still throwing up buds, and will no doubt continue to bloom until severe frost puts an end to their existence.

JOHN BLAND.

Welland Bank, Market Harborough.

SWEET PEA CHAT.

SOME MORE NOVELTIES.—The number of comparatively new and quite new varieties appears to be endless, and it is impossible for the whole of them to be specially named in this column even if it would serve any good purpose to do so, which I much doubt. The fact is that many of them are so close to others that one might safely ascribe the only differences to soil and climate; they may be left for taste and time to decide their several fates. There are, however, a few others to which it is desirable that attention shall be briefly drawn, and, this task fulfilled, I will leave varieties entirely until the seedsmen send us their lists and I can direct my readers' notice to those that are offered for sale in the present autumn and next spring. There will be an abundance from which to make a selection, even if the seeding of many of the plants is not as heavy as one could wish considering the immense demand for seeds of novelties at the present time. It is scarcely likely that any grower will have forgotten Earl Cromer, which came from Eckford a few years back. It is true that it did not attain to any material degree of popularity, on account of its peculiar colour, but it is one of those shades which one never forgets. It will, therefore, be an understandable description to say that Messrs. Bide have a Spencer of precisely the same hue, and those who prefer what may be termed out-of-the-way shades will not do amiss in giving it a trial. Another from the same source which is well worth growing is Orange King. It is not to be classed among the exhibition giants, but for brilliance of orange there is scarcely anything else that can approach to it. Mr. Unwin's Edna Unwin is a real beauty in this favourite colour, and it is no different from the many others which this keen cultivator has sent us from time to time in reliable excellence. The respective merits of Earl Spencer and Nancy Perkin have been discussed almost to death, and it is now only intended to assert again that they are distinct and that the former may be safely regarded as the better of the two. In regard to Earl Spencer, it should be particularly noted that there are at least three, and probably more, stocks, and that care should be taken to procure the seeds from a source of the first repute. Two magnificent scarlets or reds (I am not yet satisfied that we have a pure scarlet any more than we have a pure yellow or a royal blue) are Red Star, which we owe to Mr. Malcolm, and Scarlet Monarch, from Mr. W. Deal; and, personally, I should be inclined to give the preference to the latter had I to choose between them. Both are distinct from George Stark. As a crimson Mrs. Duncan will have to come within The King and King Edward Spencer group, which is nearly an endless one as far as names are concerned. There can be little doubt that Mr. Breadmore's Iris will become a power in the land, for its shade of salmon pink is at once distinct and exquisite. As a flower there is nothing at which one can grumble. There are few people in or out of the Sweet Pea world who do not know Mr. R. F. Felton. His boisterous geniality and assertive eloquence have brought him to the fore, and to think of a Sweet Pea bearing his name is immediately to picture in one's mind a flower of bold bearing and great size; and such it actually is. The colour is lavender, with a beautiful suffusion of rosy mauve; at least, this is the best description that the writer is capable of manufacturing at the moment. As a mauve Helio Paradise is an acquisition, but there are now so many of kindred or practically identical colour that it is becoming increasingly difficult to decide which is really the pick of the whole lot, especially when it is borne in mind how materially they differ in various soils and situations.

THE PEACOCK IRIS (I. PAVONIA) IN A SOUTH DEVON GARDEN.

ORDERING SUPPLIES.—There is no doubt that several hundreds of orders have already been placed, and those who have not yet forwarded them are urged to do so with all despatch. It is, of course, true that all the lists are not yet issued, but there are many varieties which will have to be bought no matter what the price may be, and it is worth remembering that the first comers have the best chance of securing what they desire when stocks are short. It is folly to wait for the lowest prices. The reputable dealers who advertise in THE GARDEN always give a fair packet at a reasonable market price, and exceptional lowness of cost by no means necessarily spells cheapness; on the contrary, it is often the reverse. SPENCER.

THE MADONNA LILY.

THROUGHOUT the month of July the flower garden contains nothing more chaste or precious than the lovely Madonna Lily (L. candidum), of which, however, there are several forms. Some of these, it is stated, because of their greater robustness and vigour, are less prone to disease than the rest, though, unfortunately, that has not been so in my experience. The disease, however, appears to vary with the season, and during the present year, when the intense heat and closeness which usually precede a thunder-storm in this country have been less experienced, the disease has in many directions been less virulent. But despite an infliction which sadly mars the beauty of this fine plant, we prize it as much as, or perhaps more than, in days of yore, when, as one of the commonplaces of the garden that required neither attention nor care, we regarded our treasure all too lightly. To-day we do our best to cultivate it, endeavouring by all the means in our power to retain even the fragments of a flower which afforded its wealth of unsullied purity in the past and to which we paid such little heed.

Now, however, a good clump in the flower border such as that illustrated is valued at its fullest worth, anxious enquiries being made as to the method of culture adopted. The best "method" of cultivation is so full of negatives that there is little cultivation needed, and may be summed up in the following few phrases: Do not plant in December or January a bulb that should have been planted in August or September. Do not plant it in richly manured soil. Avoid burying this sun-loving subject deeply in the soil, and, finally, refrain from planting it in the shade and drip of trees. Conversely, give it the poorest and warmest of soils and a warm position, and keep the bulbs near the surface at planting-time. In the cottage garden, the soil of which is not infrequently largely composed of cinder and coal ashes, this precious plant usually thrives best, and where this is so the bulbs are usually packed together in masses, the soil around being firm and uncultivated, as such conditions appear to suit the requirements of the plant. Let us who are supposed to know something of the cultivation of such things take a lesson therefrom and do our best to preserve what is left to us of this fine plant. Where we can, let us plant it in near proximity to a dark-leaved Holly or other shrub, where not only the dryness of environment beloved of this Lily will be secured, but where those finer attributes of the plant will be reflected as in a mirror. E. H. JENKINS.

THE MADONNA LILY (LILIUM CANDIDUM) AND ROSES.

THE ALPINE FLAX.

THE greater number of the perennial Flaxes, or Linums, are very beautiful, and their flowers are usually accompanied with graceful habit and charming foliage. Their fragility is only apparent, as many of them will stand unharmed the storms which cause them to sway to and fro as if they would be torn to pieces, and they remain unhurt when more sturdy flowers are wrecked by the storms. To the virtues of beauty of foliage and habit, together with prettily formed blooms, there is added to many the additional attraction of having blue-coloured flowers. This is no slight gain, this colour never being too plentiful in the garden, and it is possessed by the Flax shown in the illustration on page 475, which is a plant of Linum alpinum, the Alpine Flax.

This little plant, which is a native of several ranges of the mountains of Europe, is a charming flower for the rock garden or even for the front of the border. In appearance it may best be likened to a miniature edition of Linum perenne, having the same soft shade of blue flowers with the fragile stalks and narrow leaves of that valuabl species.

In stature it varies considerably with its position The writer has had it growing on a dry rockery an not more than 3 inches or 4 inches in height, bu the plant shown is about 9 inches high thi season. But it has the advantage of havin considerably more moisture, as, although it is i a well-drained soil of loam, sand and grit, wit stones intermixed, it receives the drainage fro the upper terraces of the rockery, which forms portion of the rock garden. Hence it never suffer from drought, and it thus thrives wonderfully an flowers for a more lengthene period than if planted in a dr position. With the writer it i perfectly hardy, and the plan figured has been growing in th same place for fully five years, al the attention it has received durin that time being a slight top-dressin occasionally, the compost used being the same as that in which it is planted, already described. For several months in summer and autumn it affords a wealth of lovely little blue flowers, which, owing to their being poised on slender stems, sway to and fro with each breath of wind.

This Alpine Flax is easily raised from seeds sown in pots when ripe or in spring, or it can be increased by the division of established plants. It is easily obtained from dealers in hardy flowers, and should be planted either early in autumn or in spring.

Dumfries. S. ARNOTT.

COLOURED PLATE.

PLATE 1409.

SOME NEW NARCISSI.

THREE of the four flowers shown in the accompanying coloured plate are blue-blooded Poets, inasmuch as their ancestors have been Poets on both sides. These represent in varying degrees the rounded, smooth, maj-min perianthed flower (to use an expressive word coined out of major and minor by the great "Poet-maker" himself to denote perianth segments of equal size).

It is a "Poet's" autumn. We find them all along the high-water mark, which, being translated, means that there is hardly a 1910 Daffodil list worth the name in which there are not one or more real good novelties. Bath's has Laureate, one of the many claimed as the finest of all Engleheart's productions, and Marian, a round, rim-eyed flower. Chapman's has Kingsley, which runs Tennyson hard for being the most refined and charming of all the Poets I know; Kestrel, a fine, all-red-eyed variety with a round perianth of immense substance; and Sonata, which looks very much as if it had a touch of recurvus. Wilson's has Snow King (Crosfield), a tall, robust, late-flowering plant of much merit with a round and symmetrically shaped perianth, and a sharply

defined rim of red round the rather yellow-looking centre ; Bret Harte, a pretty, well-formed flower ; and Tennyson, which is truly described as the best rim-eyed Poeticus in commerce—one that has that peculiar look about it which in humans we would call "gentlemanly," so unobtrusive in all its parts and yet so distinguished-looking in its *tout ensemble*. Miss Currey's has Snow King, too, and Oracle, a new all-red, and several quite cheap ones like Vanity and White Standard. Cartwright and Goodwin's has Hildegarde, Bard of Avon and Matthew Arnold, a grand exhibition flower of the ornatus pattern, notable as being the only Poet that was honoured with an award of merit from the Royal Horticultural Society this last spring. Lissadell's has Muriel and Acme, which one is glad to welcome into commerce ; I remember so well the sensation it occasioned when it was first shown at Birmingham. We were not so much used to the brilliant all-red eyes then, nor had we got anything before with such a well-shaped perianth. Bourne's (Christopher Bourne, son of the man whom every Daffodilist will always delight to honour) has Lullaby, which is said to be something like Tennyson, and Walt Whitman, unusual because of the green in its eye. Wallace's has Kingsley and Ruskin, a flower of fine appearance, the large, all-scarlet eye being surrounded with pure white overlapping perianth segments. Hogg and Robertson's has Acme, Kingsley and Kestrel. Pearson's has Ruskin. Barr's has the three flowers in the coloured plate ; Socrates, remarkable because of the deepness of the red edge of the eye and the wonderful lasting property and size of the flower ; Dresden, an attractive variety, with all-red centre ; Messina (P. D. Williams), another still more all-red, with a look of poetarum in its huge, snow white perianth ; and several others, such as Timon, a rimmed flower, Ibis, Tennyson, Snow King and many of lesser value, in all thirty-one, old and new. The Editor informs me that the coloured plate was prepared from flowers kindly supplied by Messrs. Barr and Sons.

I am very much afraid that the multiplication of varieties so much alike is getting rather bewildering, especially when we have to make a selection and say which are the best. On the other hand, the purchasing public benefits, inasmuch as it gives them so many more really good sorts, which, if they are somewhat similar to one another, are distinct advances in size and quality on the older kinds. Eros, the fourth flower in the plate, is one of the small-cupped section that approach very near to the "Poets" in their general look. Of course, when the perianth is not pure white there is little doubt where to place the flower ; but when, as in Eyebright and Harold Finn, it is pure white the line is not so easy to draw, and if the parentage is unknown there is often a difference of opinion as to what they really are. One of the best flowers of this class is Cossack.

I feel I ought, in conclusion, to give a word of caution to those who read glowing descriptions of these bright and beautiful blooms in dealers' lists, or see them staged in the perfection of condition at shows, but who have not had much practical experience in growing them. Beware of these glowing red eyes ! To have them as you see or read of them they must be gathered before they have seen the sun, or else they must be shaded where they are growing by some sort of calico or canvas covering ; otherwise you will find to greet you not what you expect, but something more like the burnt end of a cigar than anything else. Notwithstanding this fault, however, perfect flowers, when they are secured, are so beautiful that they fully repay any extra trouble that is taken with them.

JOSEPH JACOB.

THE ROSE GARDEN.

NEW ROSES OF THE YEAR.

(*Continued from page* 461.)

THE following are good novelties in alphabetical order of last year and this :

Alberto N. Calamet (H.T., Soupert et Notting, 1909).—A Rose of the Mrs. E. G. Hill type, but larger, and the blooms are more full and shapely.

Alexander Hill Gray (T., A. Dickson and Sons). This splendid yellow Rose is not yet in commerce, but when it is I should say there will be a large demand for it. Messrs. A. Dickson and Sons are tackling a very difficult phase of Rose-raising—that is, the true golden yellows of the Maréchal Niel type, only dwarf in growth, and we as Rose-growers can but wish them every success. In this Rose we have a sort of glorified Perle des Jardins, but I know nothing of its growth. The same firm have sent out this year a really beautiful yellow named Miss Alice Rothschild, which will be noted in its order.

Alexandra Zarifi (T., Paul and Son, 1910).—A single-flowered variety of much charm, after the style of, but distinct from, Irish Elegance. The buds are vivid terra-cotta, changing to buff as they expand. Awarded card of commendation, 1909.

Alice Cory Wright (H.T., William Paul and Son, 1910).—Deep pink, in the way of Caroline Testout, but larger and of more perfect form. Should be a valuable addition both to exhibition and to garden Roses.

Alsterufer (H.T., P. Lambert, 1909).—Planters of bedding Roses will value this, for it is a dwarf Grüss an Teplitz. Flowers of medium size and of brilliant crimson-scarlet colour.

Althea (H.T., William Paul and Son, 1909).—Opaque salmon pink, with orange base to petals. The flowers are freely produced and are of large size, making it highly decorative.

American Pillar (Hybrid Rambler, Dingee and Conard Company). Perhaps the season has not suited this Rose, but I have been disappointed with it. When Messrs. Cannell exhibited it at the Temple last year I thought it was glorious. Perhaps on established plants it will show up better. The foliage is delightful, but the large carmine-coloured flowers somewhat change colour and have not the glowing effect they have when grown under glass. Undoubtedly it will be a grand sort for pot-work, and especially as a bush, for it will bloom right down to the base. Outdoors its flowering season commences about the end of June.

Andre Gamon (H.T., Pernet-Ducher, 1909).—Another fine novelty from this successful Rose-grower. It is after the style of Mme. Maurice de Luze ; colour deep rose, shaded cochineal. A valuable addition.

Archibald Gray (H.T., H. Dickson). — A fine colour after the style of Hugh Dickson ; but there are three or four novelties, all of similar shade, and the question will be as to which are the most distinct.

THE ALPINE FLAX IN THE ROCK GARDEN. (*See page* 474.)

Ariel (Rambler, Paul and Son, 1910).—A delightful rambler that is a most valuable addition, only the question is, Where can we plant all these lovely Roses ? for their growth is so prodigious, and to do them justice one needs a palatial garden. Ariel has single flowers of the tints of Tea Rambler, with similar lovely foliage, the coppery shade running through the whole plant—stems, leaves and flowers.

Arthur R. Goodwin (Pernetiana, Pernet-Ducher, 1909).—A glorious colour, coppery orange red, passing to salmon pink. The formidable spines proclaim its Soleil d'Or relationship. We shall soon possess quite a number of this class, and a most delightful group it will be. Probably when Soleil d'Or is blended with some of the crimson Hybrid Teas and others, most marvellous results will follow.

Bagatelle (Multiflora, Soupert et Notting, 1909). One of the prettiest of the new ramblers and quite distinct, its dainty blush blooms, which are double, making a lovely contrast to Crimson Rambler and other late-flowering crimson sorts.

P.

(*To be continued.*)

GARDENING FOR BEGINNERS.

HOW TO PROPAGATE THE PENTSTEMONS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Every lover of a flower garden takes much pride in keeping it in the best condition possible. From the present time onwards to Christmas there will be a litter of fallen leaves in many gardens, but this fact should not distress the cultivator of choice plants and bulbs. It is a natural state where there are deciduous trees and shrubs growing, and if the owner of the garden sweeps up the fallen leaves very often, and especially while the ground is soaked with water, he will make the lawn look muddy and leave scratches on the gravel paths. When the weather is calm and the ground fairly dry, advantage should be taken of such conditions to do all the sweeping possible. As the month of September is now drawing to a close, frosts may be expected. I have noticed for many years past that the first frosts (in the Midlands and South) come during the last week in September and the first in October, and then we are comparatively free from them for two or three weeks. It is advisable, therefore, to take every precaution to guard our precious plants from damage from such a source by either taking them to houses or suitable structures or covering them with mats, tiffany, or even old herring-nets spread out on light framework. We do not get day frosts at this season ; they are night ones, so that the protection will only need be afforded the plants during the night. Dahlias, especially the single-flowered and the Pompons, must receive attention in this matter on account of their decorative value in a cut state. As the beds are cleared of their summer-flowering occupants prepare the soil for bulbs and spring-flowering subjects.

Vegetable Garden.—The early Carrot-beds may now be cleared entirely. From time to time roots have been pulled up for immediate use, and so the beds have now a patchy appearance ; but it is quite time to lift and store the remainder. Ease up the roots by driving in a garden prong; then there will be no violent pulling up of a single specimen and, consequently, no bruising. Twist off the tops near the crowns and store the roots in sand or even ordinary soil, but sand for preference. Directly the beds are cleared deeply dig or trench the soil. Spring Cabbages and Cottagers' Kale may be planted on the vacant plots. Make the soil very firm around the roots of all such plants put in. The Parsley crop is a valuable one throughout the winter-time. No doubt readers may have some grand old specimen plants in their gardens ; these plants will have exhausted the best part of the nutriment in the soil, and, consequently, be making very short-stemmed leaves, but withal very finely curled ones. Plants of this kind withstand severe weather better than young ones, and so it is good policy to retain a bed of them. Destroy all Potato, Pea and Bean haulm ; if left on the ground it harbours slugs and earwigs. It must be burned and the ashes returned to the soil. All decaying leaves of Winter Greens and similar plants must be collected.

1.—FLOWER-STEM OF A HYBRID PENTSTEMON SHOWING BLOSSOMS AND NUMEROUS YOUNG GROWTHS SUITABLE FOR MAKING INTO CUTTINGS. CUTTINGS ARE ALSO PROCURED FROM THE CROWN OF THE PLANT.

Fruit Garden.—Apples and Pears are very precious this year, and every care should be bestowed on the proper storing of the fruits. All bad, grub-eaten specimens must be kept separate from the sound ones. Grub-eaten fruits can be readily picked out. They are generally the highest coloured, and if closely examined a small, dark-coloured hole will be found near the eye. Grease-banding of fruit trees should be done very soon. Next week I will tell readers how to put on the bands. In the meantime some long strips of cloth—old cloth or pieces of sacking—and cart-grease should be procured. Strawberries in pots must have their crowns well ripened ; to this end place the pots on boards or ashes in the most sunny spot in the garden. See that the soil in the pots is kept quite free from weeds ; if these are allowed to grow they will use up food that ought to go to the Strawberries.

Greenhouse and Frames.—As the night temperature is now getting rather low, it is unwise to put off the lighting of fires any longer. The pipes should be slightly warmed by seven o'clock each evening and the fire banked while very bright at ten o'clock. It does not matter if the pipes cool by seven o'clock the following morning, as the warmth from them throughout the night prevents undue condensation of moisture and constant chills to the plants. Newly lifted and potted plants placed in the frames and greenhouses must be lightly shaded from bright sunshine for about a week afterwards, and occasional syringings will be much more beneficial than too frequent watering of the soil. Material for hot-bed building and for covering frames must now be prepared. Pot Roman Hyacinths, named Hyacinths, Tulips and Narcissi for early forcing. A. A.

INCREASING THE PENTSTEMONS.

THE race of beautiful Pentstemons that are n met with in a well-ordered garden, and those are accustomed to see so charmingly represent at the leading shows throughout the country, hybrids, and they may be grown with the great

2.—THE SHOOT ON THE LEFT IS JUST AS IT WA CUT FROM THE PLANT. ON THE RIGHT PREPARED CUTTING IS SHOWN.

ease. When grouped or massed in distinct colou or varieties some really beautiful effects may created, and those who desire to make the mo of their plants will be well advised to adopt th method of planting. The new hybrid Pentstemo may be increased by two methods—by seed sow in heat in March and April, and the seedlings grow on with all speed, pricked off and handled two three times, and subsequently hardened off befo planting them outdoors in their flowering quarte and by cuttings.

An early sowing of Pentstemon seed should ensu a bright display from the resulting seedlings the succeeding August. They may, therefore, treated as annuals quite successfully, and for th reason may commend themselves to many reade We are not now dependent on seed saved indi criminately from indifferent varieties, and nee not wait until we have a collection of good hybri of our own, for there are firms who make th Pentstemon a speciality, and who offer seed save from the finest strains for 1s. and 2s. 6d. a packe

Raising, or, rather, increasing, the Pentstemo by cuttings, however, is a matter for our immedia concern. Those who have raised beautiful see lings that they may desire to increase an perpetuate can only do so either by cuttings take at the present time or by division of the old plan in the spring, and this applies also to name varieties. No time should be lost in commencin operations, as it is now full late for the work Young shoots that are suitable for cuttings i variably develop at the base or crown of the ol plants, and, where there is a scarcity of this materia the side growths that evolve in the axils of th leaves on the lower portion of the flower-stem will provide a welcome supply of shoots that wi make excellent cuttings just now.

For the benefit of the inexperienced grower typical growth of the Pentstemon, showing th flowers with the young growths freely develope

n the lower portion of the stem, is shown in Fig. 1. y cutting away the flower-spike a number of oung shoots are always encouraged to develop, nd these invariably root quite satisfactorily. hat the beginner may better understand the haracter of such growths, I have given an illustra- on of such material in Fig. 2, the shoot on the ft being just as it was cut from the plant.

The preparation of the cuttings next requires to e dealt with, and this is a most simple matter. The ttings when properly prepared should be about inches in length, as shown on the right of Fig. 2. he lower leaves are trimmed off close to the stem ith a sharp knife, and the stem of the cutting cut rough immediately below a joint, the latter eing formed by the junction of the leaf-stalk with he stem of the cutting itself.

Cuttings may be rooted in a variety of ways— cold frame may be requisitioned, a bed of sandy il prepared, and the cuttings inserted in this here a large number of plants are desired. Where he demands are less, boxes, pots or pans may be ilised for the same purpose quite successfully. Fig. 3 a number of cuttings are shown inserted a seed-pan of good dimensions. A suitable mpost for propagation purposes should comprise am, leaf-mould and coarse silver sand or clean ad grit in equal proportions, and be well mixed. sert the cuttings carefully, pressing the soil mly to the base of each one. Water in, and after aving to drain for a while cover with a bell-glass hand-light, and arrange in the cold frame. Keep e cuttings close for a time till rooted, then admit r. During the rooting process shade from bright nshine. Wet and frost are the greatest enemies these plants in the winter; therefore avoid wet nditions and protect the plants during spells severe frosts. D. B. CRANE.

AZALEAS.

HOUSING THE PLANTS.

OR the embellishment of the greenhouse and nservatory during the latter part of the winter and e spring months there are few kinds of plants at are more useful and effective than Azaleas ndian or Chinese) grown as small and medium- zed specimens. Inexperienced cultivators, how- er, very often err in their initial treatment the plants. For instance, the latter are ten placed in strong heat directly they are used with the idea of forcing out the flowers ickly. This is a great mistake to make. hese plants, if required to be useful year after ar (and they are naturally long-lived plants) ust not be hard forced except at the time the wer-buds commence to open. At other periods, er the new shoots have grown, the proper eatment is a cool one. For example, in the sum- r and early days of autumn they may with vantage be grown in the coolest position in the en air; and if the leaves have been kept clean d healthy the plants will now bear some plump wer-buds. Owing to mismanagement after using I have seen many fine plants nearly ruined. e plants should be placed under glass before sts come or receive slight protection. It is t absolutely necessary to put the Azaleas in a enhouse or conservatory; if a frame deep ough is available, it would be quite suitable for plants. In any case, it is well to admit plenty air to the interior of the structure and to avoid a h temperature and close, dry atmosphere. A ngle bed on a stage or a bed of ashes in a frame m suitable bases, as there is generally an even ount of moisture there. Failing such bases for plants, occasionally syringing wooden stages d the pots is beneficial. Do not feed, and keep ball of soil in an even state of moisture. AVON.

ARUM LILIES.

THEIR TREATMENT IN AUTUMN.

THE Arum Lily is a noble plant for the greenhouse, glass porch or conservatory in winter and spring. Although the plants will do very well in a cool house from which frost is excluded, the best cannot be obtained from them in that way; neither is it advisable to subject them to a very high temperature for any considerable period. A medium temperature is, therefore, the ideal one. On no account must the plants be left outside until frost comes. They must be lifted in September and potted, and if rightly treated they will quickly become established in their new quarters. Where it is possible to do so, divide any large roots and pot them separately; they are the most serviceable. Overpotting, too, must be avoided, as the cultivator should remember that the plants will soon be required for the greenhouse; and, unless the pots are fairly well filled with roots, neither forcing nor feeding can be quite successfully carried out. If the roots and a small quantity of

3.—CUTTINGS MAY BE ROOTED QUITE EASILY IN COLD FRAMES, BOXES, POTS OR LARGE SEED-PANS. THE LATTER METHOD IS SHOWN IN THE ABOVE ILLUSTRATION.

new compost can be accommodated in the pot, the plant will soon be established therein. Poor soil will not do for our purpose. The compost should be of good quality. Fibrous loam, leaf-soil, rotted manure and sand or road scrapings will do nicely. Press down the soil moderately firmly, but do not damage the large, fleshy roots, and place the plants in a cool frame or house for two or three weeks. Give water directly the plants are potted, but afterwards frequent or daily syringings will supply the necessary moisture until the new roots commence to grow freely. SHAMROCK.

THE TOWN GARDEN.

CHRISTMAS ROSES.—My sole reason for referring to the Christmas Roses at what might appear an unseasonable moment is to urge upon my readers the necessity of making plantings of them at this time, that is if they would play their part in making them a success. In the majority of gardens, large or small, they are anything but this; and the reason of the non-success is that they are planted at a wrong season in very large degree. The peculiarities of their rooting, or, rather, their root production, are such that immediate success could only be assured by planting them during the early autumn months. No flower is more greatly prized in winter, none more deserving of greater care or attention, none more hardy, and certainly none more precious. Then why not give it the treatment it requires? The wretched examples one sees from time to time belie the fact that this is an easily grown subject. We are told it is impatient of disturbance. It is if disturbed at a wrong time. The right time, however, is now. The best varieties to plant, for there are several, are maximus, November flowering; major, December flowering; and angustifolius, January flowering. Any or all of these are obtainable from the hardy plant nurserymen who advertise in our columns.

BEDDING PELARGONIUMS.—Where the cuttings of these were inserted in pots or boxes as recommended a short time ago and stood in the open to root, it will be prudent to remove them to the cold greenhouse or to a frame where ample air is permitted. All dead leaves should be removed, and to maintain a sturdy habit of growth little water should be afforded the freshly rooted plants. The young stock of Lobelia intended for propagation in the coming year should not be allowed to exhaust itself by flowering at this time. Any that display this tendency should be clipped over with scissors, cutting the plants low down to make them produce genuine growth and not flowering shoots.

JAPANESE ANEMONES.—I have been much impressed of late by the value of the white and pink flowered varieties of these in several town gardens, and, seeing that they are unique among the hosts of good garden flowers just now, I would like to draw particular attention to them. The white-flowered form possesses the purity and chasteness of the Eucharis, and above its ample leafy setting is an ideal plant indeed. It does not mind a corner in partial shade, but appears to detest heavy tree shade overhead. An even greater purity of this peerless flower is revealed when planted near to sombre-toned shrubs—Holly and Yew, for example—the value of the whole being much enhanced by the association.

AN AMATEUR'S PLEASURE.—Little things are said to please little minds. Be that as it may, it is certain that a very small amateur in gardening affairs has been intensely pleased by some of his earliest efforts whereby a concrete yard has been broken up and freely bordered with Nasturtiums. It is all the garden at his command, but it afforded him pleasure and not a little exercise early in the year. If "Great things from small beginnings come," surely there is something in store for our friend. Anyway, he is not a little proud of having scored a success in the circumstances briefly described.

SOME GOOD AUTUMN FLOWERS.—Just as in spring-time and in summer there are good border flowers that stand out well from their fellows and command attention, so, too, now at this season is there a similar thing experienced. For example, what can equal the Anemones to which I have already drawn attention, or what compare with such myriad-flowered Asters as acris or Amellus, or the brilliancy of the tall-growing herbaceous Lobelias which are now in such perfection? Then there is that valuable subject for harvest festival time, Pyrethrum uliginosum, which, with its sheaves of white blossoms, is in direct contrast to the warm reddish glow that renders Helenium Riverton Gem so good and so decidedly autumnal in effect. E. H. JENKINS.

"HOLLAND IN IRELAND"

FOR a very long time indeed Holland and Flanders supplied pretty well all the bulbous roots that were cultivated in British gardens, and not a few of the vegetable and flowering plants that were raised annually from seeds. I can only suppose the reason why this went on for so long was because we had got so accustomed to getting our supplies from abroad that we came to look upon it as second nature, and in consequence never tried what we could do for ourselves. I am unable to say what it was that first prompted our fellow-countrymen to try their hand at bulb-growing, that is to say, at growing the plants for the sake of the bulbs and not for the cut flowers, as was the case in the Scilly Isles. I believe, but I am open to correction, that the Spalding district of Lincolnshire was about the earliest centre where this culture was practised, and that my friend, Mr. J. T. White of Spalding, was one of the first of the pioneers. At any rate, it is getting on for twenty years now since I had my first talk with him about his Daffodil farm, and he was not quite a beginner then. One thing I so well remember him telling me was that he had had an order for a million double Van Sions from America!

Since then the world has gone on and we have learnt more about bulb-farming. Many "Hollands" in the "British Isles" have come into existence, but nowhere is the title more appropriately bestowed than upon those flat, sandy fields round about the little town of Rush, which is situated on the sea-coast about fifteen miles as the crow flies to the north of Dublin, and almost opposite the island of Lambay. Here in 1895 the present Mr. James Robertson, who had three or four years before succeeded his father as head of the firm (Hogg and Robertson), began to grow bulbs. His aim was then, as it still is, to make it an exact reflection of a representative Dutch bulb farm. All kinds of bulbs are grown in quantity for commercial purposes with the exception of Hyacinths, and the area which is now under cultivation extends to over forty acres. Almost half of the whole is occupied by Tulips, some of which are shown in the accompanying illustration, while a great part of the remainder is given up to Daffodils and Narcissi. There are, however, large stretches of Gladioli, Ixias, Anemones, English, Spanish and German Irises, and other miscellaneous bulbs, such as Muscari and Montbretias. Owing to the comparatively mild winters and the genial springs which are experienced on the East Coast of Ireland, it has been found that all the above classes of bulbs do remarkably well.

I have visited "Holland in Ireland" twice, and on both occasions it was when the Daffodils were in bloom. It is impossible to enumerate all that I would like to talk about. There was a fine healthy lot of Brigadier, which may be called a small, pointed edition of Lady Margaret Boscawen; several beds smothered in bloom of Lady Gore-Booth, which reminded me of the old James Bateman; a nice little lot of that excellent pure ivory white Ajax Mrs. H. D. Betteridge, which I know from practical experience to be an excellent "doer"; a fine mass of that glorious bicolor Duke of Bedford; thousands of blooms of a pretty cheap little Leedsii called Nora, which had a sort of Citron look about it; a fine bed of the pretty and highly decorative Mrs. C. R. Hamilton; and an immense stock of my little pot favourite, W. P. Milner. I see Messrs. Hogg and Robertson list it at 5s. 6d. per hundred or 1od. per dozen. No Daffodil in the world is more dainty or more beautiful when it is grown in shallow pots and slowly forced.

The Tulips, with the exception of some of the early flowering ones, were not in bloom, but I saw the green leaves of thousands of Darwin and Cottage varieties. The former may be called the firm's great bulb speciality. Two years ago I saw the labels which marked no fewer than 450 varieties. It was a great "trial" to find out the best. Hence their collection of fifty, which appears on page 29 of their 1910 list, may be relied upon to be all cream and nothing but cream. It is a wonderful sight, I am told, when all these late-flowering Tulips are in bloom, and if it were not that one would miss the broad ditches and the curious gaunt piles of Reeds that have served as a winter covering for the beds, and which look like colossal haystacks, and that in their place we would see wind-breaks of Privet and Elder and high turf banks, we might very well imagine we were in Holland. It must be a source of much satisfaction to the firm not only to feel that by this home industry they are employing so m extra labour beyond what ordinary farm w would have done on the same amount of la but also to know that the bulbs which t produce are all of them sound and healthy, a are able to hold their own in the markets of t world.

JOSEPH JACOB.

SOME OF THE TULIPS AT "HOLLAND IN IRELAND."

NEW PLANTS.

GLADIOLUS RATHLINE.—A well-formed flower rich cream tone, the central lower petal yell and the base of the tube crimson. The spike full and well formed. From Mr. Bull, Ramsgate.

Dahlia Cardinal (Single).—Rich reddish scarl colour and a perfectly circular flower.

Dahlia Mrs. Joynson Hicks (Single).—A goo and shapely flower of orange buff tone, with crimso centre.

Dahlia Mrs. Landale.—A garden Cactus variet the yellow ground being suffused with rosy pink.

Dahlia The Hon. Mrs. Greville.—A garden Cact variety of orange yellow tone, suffused with salmo This set of four varieties were exhibited b Messrs. J. Cheal and Son Crawley.

Dahlia Princess Julian A pure white variety of th Pæony-flowered sectio Shown by Messrs. Whiteleg and Page, Chislehurst.

Dahlia Sweet Briar (Garde Cactus variety).—A ros coloured self of much meri

Dahlia H. L. Brousso (Cactus).—A well-forme variety of rich rose colou ing and light centre. Thes two varieties were exhibite by Messrs. J. Stredwick an Sons, St. Leonards.

Dahlia Ouida (Single).- Salmon rose, with crimso centre.

Dahlia Loveliness (Single Rose, with crimson bas to the florets; a pretty an well-formed flower. Thes were shown by Mr. M. V Seale, Sevenoaks.

Dahlia Minerva (Garde Cactus).—Yellow ground heavily shaded rosy pink tips of petals tinted gold; flowering on long, erec stems, well above the foliage.

Dahlia Loveliness (Garden Cactus).—Bright pink veined with white; a lovely decorative variety very free flowering, showing its blooms well abov the foliage. These two were shown by Mr. C Turner, Slough.

Chrysanthemum Hollicot Yellow.—The colour is c glistening buttercup yellow shade, florets slightl drooping. A refined and handsome-looking variety

Chrysanthemum Hollicot White.—A pure whit of exceptional merit, the well-formed flower-head produced on stiff stems. These were shown b Mr. W. Roots, Cranford, Middlesex.

Each of the foregoing received an award of meri from the floral committee.

Cattleya Iris King Edward VII.—The sepals an petals are of greenish yellow tone, shading t bronze, and the handsome lip is of a rich purplis crimson colour. Exhibited by H. S. Goodson Esq., Fairlawn, Putney. First-class certificate.

Lælio-Cattleya Berthe Fournier magnifica.— first-class certificate was also granted to this exce lent variety.

Cattleya Adula (C. bicolor × C. hardyana).—The sepals and petals are of rosy hue, the lip crimson. Shown by R. G. Thwaites, Esq., Streatham. Award of merit.

Odontioda Cecilia (Cochlioda noetzliana × Odontoglossum wiganianum).—The sepals and petals of this pretty hybrid, and indeed the entire flower, is chequered with reddish crimson and yellow. The lip is slightly fringed and deeper yellow in colour. Exhibited by R. G. Thwaites, Esq. Award of merit.

Cypripedium Angela (C. niveum × C. fairieanum).—Briefly, this pretty hybrid may be likened to a whitened C. fairieanum, the pouch, perhaps, presenting the greater evidence of the other parent save from the point of view of colour. The delicate lining renders the variety distinctly pleasing. From Mrs. Norman Cookson, Oakwood, Wylam-on-Tyne. Award of merit.

All the foregoing were shown before the Royal Horticultural Society on the 13th inst., when the awards were made.

NEW FRUITS.

APPLE REV. W. WILKS.—A large, rounded, very handsome culinary variety with pale yellow skin; very heavy and precocious cropper. Of equal value for market, for home use and for exhibition. The result of crossing Peasgood's Nonsuch with Ribston Pippin. The award of merit given a few years ago was increased to a first-class certificate. Shown by Messrs. James Veitch and Sons, Limited, Chelsea.

Apple Red Victoria.—The fruits of this are conical, angular, of an intense red colour and much resemble Gascoyne's Seedling, but earlier. The colour permeates the flesh of the Apple, which cooks well, but is rather acid. It is an enormous cropper, and no doubt will become popular for market sale. It received an award of merit two years ago, and has now been granted a first-class certificate. Shown by Mr. G. W. Miller, Wisbech.

NEW VEGETABLES.

POTATO PRIMA DONNA.—A white variety grown at Wisley and tested for its cooking quality. From Mr. H. Chambers, Tunbridge Wells. Award of merit.

Potato Dalmeny Early.—A well-known early, flattish, round tuber of good table quality and a good cropper. Grown at Wisley. From Messrs. Barr and Sons. Award of merit.

Culinary Pea Seedling 223.—A tall, heavy cropper carrying long, pointed, very green, well-filled pods, and which proved to be the best of all the tall Peas grown at Wisley. From Messrs. James Carter and Co., High Holborn. Award of merit.

Three marks were given to very handsome Parsnips grown at Wisley and placed before the committee. These were Student, Improved Hollow Crown and New White Marrow. The roots were not long, but very fleshy. From Messrs. Barr and Sons, Covent Garden.

THE EDITOR'S TABLE.

SEEDLING DAHLIAS FROM ONGAR.

Mr. W. Hasler, The Gardens, Blake Hall, Ongar, sends a collection of single seedling Dahlias, among which there are some very attractive colours. Such flowers are worth growing for cutting, and also for the bright display they make in the border at this season. Compared with named varieties, however, they lack form and substance, and are not worth naming. Mr. Hasler writes: "I am sending a few single Dahlias for your table. The pink one I am very pleased with. Do you think it ought to be named? These are from seed sown this year, and they are glorious plants for beds or borders."

INTERESTING FLOWERS FROM IRELAND.

The Rev. W. W. Flemying, Goolfin, Portlaw, County Waterford, sends a most interesting collection of flowers with the following note: "I have much pleasure in sending blooms of the following shrubs and flowers for the Editor's Table. They were all gathered on September 1. Abelia triflora, Atriplex Halimus (grown for its fine glaucous foliage), Buddleia variabilis veitchiana, Ceanothus Gloire de Versailles and C. Perle des Roses, Clerodendron trichotomum, Cytisus nigricans Carlierii, Eucryphia pinnatifolia (now nearly out of bloom), Erica vagans alba, Hypericum patulum, Malus John Downie (in fruit), Spiræa Menziesii triumphans, five varieties of Cactus Dahlias, Crinum Powellii and C. Powellii album, Lilium Henryii with twenty-five flowers, and Antholyza paniculata."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Anchusa italica Dropmore variety (*M. Uland*).—This plant is best increased by means of root-cuttings inserted in sandy soil from December to February in slight heat. The cuttings should be about an inch long. The process has already been described in THE GARDEN, but we shall refer to it again at a more seasonable moment. We cannot advise you to lift the plant after the manner of a Dahlia, as it produces no tubers to therein store its vitality. The plant is certainly perennially inclined, though not persistently so, and frequently after a heavy flowering succumbs. Seeds are produced, but the seedlings do not usually come true; hence, as the plant is not easy to increase by dividing, the greater value of root-cutting propagation. If your plant is disturbed for increasing now or a little later, the possibility of a good flowering another year will be greatly diminished.

Bulbous plants for western border (*Muddled*). For the wall any of the forms of Clematis Jackmanii would be quite suitable. Among the Lilies a good selection for a succession should include L. dauricum, L. croceum, L. candidum, L. pyrenaicum, L. pardalinum, L. Henryii, L. speciosum, L. auratum, L. tigrinum var. Fortunei and L. longiflorum. Any of the Daffodils would flourish there, and in addition one could have Solomon's Seal (Polygonatum officinale), Anthericum Liliago, Colchicum autumnale, C. speciosum, Chionodoxa Luciliæ or C. sardensis (Glory of the Snow), Snowdrops (Galanthus Elwesii and G. nivalis) and the Spanish Bluebell (Scilla campanulata) in various colours of rose, blue and white. These would fill a good-sized border and supply a long succession of bloom. It is evident that the Jasmines do not get sun enough to ripen the wood sufficiently for it to form flowers. But it is difficult to give a reason for non-flowering without seeing the plants and their surrounding conditions. It is possible that as they get older and better established they will flower.

ROSE GARDEN.

Roses with evergreen foliage (*E. M. Wild*). There are no true evergreen Roses, but some varieties retain their foliage in a mild winter or in a sheltered garden well into the dull months of the year. A few of the best are *Aimée Vibert, *Jersey Beauty, *Evergreen Gem, Reine Olga de Wurtemburg, Longworth Rambler, Aglaia, M. Desir, *Edmond Proust, Mme. Alfred Carriere and Félicité Perpétue. Those marked with an asterisk are the best, and you would do well to plant several of these.

Rose foliage blighted (*R. W.*).—The foliage of the variety Mignonette which you enclosed has no disease so far as we can see. The dark bruised appearance is the result of cold winds and probably a slight frost.

Rose leaves curled (*J. K.*).—The Rose leaves were attacked by the Rose leaf-rolling sawfly (Blennocampa pusilla). The rolled leaves will be found to contain the larvæ, which hide here during the day. Hand-picking is the best remedy, or the plants may be sprayed with a very fine spray made by mixing 1oz. of Hellebore powder with a gallon of water, keeping the whole well stirred.

FRUIT GARDEN.

Vine leaves diseased (*William Ware*).—The only effectual way of ridding your Vines of the grub or Vine weevil is by carefully picking them off. We also notice that the leaves are infested with red spider. The best way to get rid of this is by heating the hot-water pipes to boiling point and then paint over with sulphur made to the consistency of paint by mixing with water. Do this on two successive evenings, and you should get rid of the spider, and possibly some of the weevils as well. Of course, the vinery must be closely shut up, so that the sulphur vapour from the hot pipes cannot easily escape. It should be carried out while the outside air is calm.

Apricot tree cankering and gumming (*Apricot*).—Our correspondent says: "Can you kindly inform me in your valuable paper what is the cause of my Apricot tree gumming and cankering? It is growing on a wall, south-west position." This same question has been asked by generations of questioners before; but no definite and reliable answer has ever been given to the question. There is no doubt the Apricot is more predisposed to this disease than any other fruit tree, and it is also well known that there is no absolute cure for it. At the same time, trees suffering from the disease will go on bearing good crops of fruit for very many years, especially if the precaution is taken of thoroughly cleaning out the wounds (caused by gumming) at winter pruning-time.

Melons failing (*L. M.*).—It is now too late to begin again this season the culture of Melons, as, although the writer of this note has had four crops of Melons in the same pit or heated house in one season, to get a late crop you would require to have strong plants ready to plant out early in August, so that, you see, the season is gone. In your case you certainly require more advice how to prevent failures than at this late season to make a fresh attempt. All the flowers should be set as near as possible at the same time; at least, only a few days should elapse between the time the whole crop on each plant is set; and to do this it may be necessary to remove the first one or two stray blossoms and secure, say, three or more that show a little later on at times. If the lateral growths are stopped early, it is an easy matter to get four to six female flowers open on each plant and set with the male blossoms, and then later on it is necessary to remove those not required for ripening. If one fruit swells away in advance of the others, this robs the later fruits of the sap, and the result is that they grow, like your fruits did, to a certain point, turn yellow and drop off. Then, again, the top growth of the plant may be too gross, there may be too much wood, and as the lateral or side growths form the main shoot it is necessary to cut out weak growth and have the fruiting ones from 12 inches to 15 inches apart, these trained in to the trellis, and if in frames arranged so that light and sun can circulate freely. We have also seen whole crops of Melons at this stage go off similar to yours by strong manures being applied just as the plants are flowering, also by keeping the house too close and moist. A common cause of failure with Melons is planting in a rich root-run; they do best in a good loamy or even strong soil, making the roots quite firm at planting. In frames, the plants, if on a bed of manure for heating purposes, should have the soil placed in a raised heap to keep them

from rooting down deeply and the foliage kept thin; indeed, with frame culture and a tendency to gross growth it is at times necessary to take a spade and cut deep down any gross roots entering too deeply into the manure.

MISCELLANEOUS.

Names of fruit.—*E. Morris.*—Apple Irish Peach.——*Mrs. Standring.*—1, Warner's King; 2, Lady Henniker; 3, Lord Grosvenor.——*T. R.*—1, Round Winter Nonsuch; 2, Beauty of Bath.——*Constant Reader.*—1, Lane's Prince Albert; 2, Worcester Pearmain; 3, Newton Wonder; 4, Schoolmaster; 5, Brabant Bellefleur; 6, Warner's King; 7, Reinette du Canada; 8, Yorkshire Beauty; 9, King of the Pippins; 10, same as No. 6; 11, Cox's Pomona; 12, Duchess of Gloucester.——*Mercury.*—1 and 3, Keswick Codlin; 2, Stamford Pippin; 4, Northern Greening; 5 and 7, Devonshire Quarrenden; 6 and 15, Cox's Orange Pippin; 8, Brabant Bellefleur; 9, Blenheim Orange; 10, Withington Fillbasket; 12, Stirling Castle; 16, Lemon Pippin; 18, Lane's Prince Albert. Other numbers had become detached. Plums: 13, Belgian Purple; 14, Shropshire Prune.——*J. A.*—Apples: 1, Yorkshire Beauty; 2, James Grieve. Pears: 1, Doyenné du Comice; 2, Beurré Diel; 3, Beurré d'Amanlis; 4, Gansel's Bergamotte; 5, Duchesse d'Angouleme. Plums: 1, smashed; 2, Late Prolific.——*H. E.*—Apple Lord Derby.

Names of plants.—*Mrs. Mayon.*—Helichrysum humile (Aplexis macrantha).——*Espero.*—1, Cotoneaster frigida; 2, Pyrus floribunda (?); 3, Hippophae rhamnoides; 4, Cratægus Crus-galli.——*F. Lurani.*—Polygonum orientale.——*Walter Rolfe.*—Abelia chinensis.——*M. I.*—1, Polygonum cuspidatum; 2, Hibiscus syriacus var.——*Y. Z.*—1, Hypericum calycinum; 2, Veronica gentianoides variegata; 3, Rubus rosæflorus; 4, Hibiscus syriacus; 5, Chelone obliqua; 6, Phlox species, please send in flower; 7, Euonymus japonicus variegatus; 8, Cupressus pisifera var. squarrosa.——*F. J. S.*—Silene Armeria.——*Mrs. Hallowes.*—Clematis Viticella (blue); C. orientalis (yellow).——*Miss T. D. Deane.*—Cardiospermum Halicacabum.——*T. T.*—1, Buddleia variabilis; 2, Jacobinia pauciflora (Libonia floribunda).——*J. Goodfellow.*—1, Clerodendron fœtidum; 2, Eucomis bicolor; 3, Lantana Camara var.; 4, Callirhoe lineariloba; 5, Œnothera speciosa.——*T. E. Johnson.*—1, Rose Frau Alfred Mauthner; 2, Rose Old Crimson or sanguinea; 3, Hypericum hookerianum (syn. with H. oblongifolium).——*New Castle.*—Aster Amellus variety.——*H. J. W.*—1, Gnidia carinatum; 2, Aster macrophyllus; 3, Veronica spicata; 4, Physostegia virginiana; 5, Thymus Serpyllum lanuginosus; 6, Acæna Novæ-Zelandiæ; 7, Heuchera species, please send in flower.——*Mrs. Sartorius.*—We regret we cannot recognise the Broom from pieces sent. Please send again when in flower and pack in damp moss.——*F. P. P.*—1, 2 and 10, Phlox, garden seedlings; 3, Iris species, cannot name from leaves only; 4, Veronica longifolia; 5, Pulmonaria saccharata; 6, Veronica gentianoides; 7, Heuchera species, see No. 3; 8, Aster acris; 9, please send in flower; 11, Erigeron strigosus; 12, Melissa officinalis variegata.——*G. H. A.*—1, Fraxinus excelsior heterophylla; 2, Hibiscus syriacus; 3, Rudbeckia subtomentosa.——*H. M. Tate.*—Aster amelloides.——*G. Press.*—Ruellia Portellæ.——*G. L.*—1, Deutzia species, please send in flower; 2, Diervilla hybrida; 3, not found; 4, Rubus species, please send flowers and fruit; 5, please send leaves and flowers; 6, Spiræa discolor; 7, Hypericum elatum; 8, Veronica speciosa var.; 9, please send in flower; 10, Cornus albus Spæthii; 11, Forsythia suspensa; 12, Coriaria japonica. It is not possible in many instances to identify growing shoots of trees and shrubs without flowers.

THE GOLD MEDAL GROUP SHOWN BY MR. G. PRINCE AT THE AUTUMN ROSE SHOW.

SOCIETIES.

NATIONAL ROSE SOCIETY'S AUTUMN SHOW.

THE autumn show of this society, held in the Royal Horticultural Hall on the 15th inst., can but be regarded as a pronounced success, many of the blooms, if not of the high standard seen at some former shows, closely approaching the hall-mark of excellence. A noteworthy fact was that Messrs. Cocker and Sons of Aberdeen took the first prize for thirty-six distinct varieties for the sixth year in succession. The Roses in Class 11 constituted an exhibition alone, and were greatly admired.

NURSERYMEN.

General Section.—For thirty-six blooms, distinct, there were seven competitors, the flowers, despite their excellence in some stands, generally falling below the quality of last year. The first prize was awarded to Messrs. James Cocker and Sons, Aberdeen, whose Hugh Dickson, Lyon Rose, Pharisaer, Prince Arthur, A. K. Williams, Helen Keller and Betty were magnificent blooms. Second prize went to Messrs. Adam and Craigmile, Fernielea Nurseries, Rubislow, Aberdeen, whose blooms of Mrs. Peter Blair, Captain Hayward, Lyon Rose, C. J. Grahame, Betty, Gloire de Chedane Guinoisseau and Mildred Grant were all of exceptional merit. Mr. W. Ferguson, The Nurseries, Dunfermline, was third, the best bloom being Lyon Rose. Earl of Warwick and J. Stuart Mill were also good.

In Class 2, for thirty-six varieties, not fewer than three trusses of each, there were only two competitors, Mr. John Mattock, New Headington, Oxford, taking the leading place with a magnificent lot of blooms, of which Lyon Rose, Marie van Houtte, Hugh Dickson, White Maman Cochet, Earl of Warwick, Lady Roberts, Mme. Melanie Soupert, Caroline Testout and Ulrich Brunner were the chief. Medea, C. J. Grahame, W. R. Smith and M. Joseph Hill were also excellent, while the nearly mildew-proof Mme. Antoine Mari, of peach and white colour, was very charming. Second honours went to Messrs. Frank Cant and Co., Colchester, whose smaller masses of flowers made a less effective whole. Some excellent vases were staged, however, and of these Lyon Rose, Frau Karl Druschki, La Tosca, White Maman Cochet, Lady Ashtown, Harry Kirk and Marie Antoine Mari were in good form.

Exhibition Roses in Vases.—For twelve distinct varieties, seven blooms of each, space not to exceed 6 feet by 3 feet, Messrs. James Cocker and Sons, Aberdeen, were first with a superb lot, Mme. M. Soupert, Lyon Rose (a magnificent vase), Captain Hayward, Alfred Colomb, Mrs. D. McKee, Mrs. W. J. Grant, Mrs. J. Laing and Hugh Dickson being the best in a really fine display. Second honours went to Mr. Hugh Dickson, Royal Nurseries, Belfast, whose vases of Harry Kirk, Hugh Dickson, Leslie Holland, Frau Karl Druschki, Countess of Shaftesbury and Mrs. Stewart Clark were all fine. Mr. W. Ferguson, Dunfermline, who had capital vases of Lyon Rose and J. Stuart Mill, was third.

THE GARDEN.

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CONTENTS.

THE MODERN DEVELOPMENT OF THE DAHLIA 481

NOTES OF THE WEEK
Forthcoming events 482
French Horticultural Society of London 482

CORRESPONDENCE
Thinning-out Raspberry canes 483
Strawberries Countess and Fillbasket 483

GARDENING OF THE WEEK
For the South and South Midlands .. 483
For the North and North Midlands .. 483

FRUIT GARDEN
The Apple scab disease and its treatment 484

KITCHEN GARDEN
Notes on vegetables 484

ROSE GARDEN
A Rose garden by the sea 485
New Roses of the year 485
New Rose Mrs. Herbert Stevens .. 486

FLOWER GARDEN
Seasonable notes on Chrysanthemums 486
Pinks on a dry wall 486

GREENHOUSE
Notes on Orchids .. 487

TREES AND SHRUBS
Planting cliffs by the sea 487

GARDENING FOR BEGINNERS
Garden work week by week 488
Grease-bands as protection against codlin and winter moths 488
Giant Rocca Onions 489
The proper soil for pot plants 489

THE TOWN GARDEN .. 489
Trials of garden decorative Dahlias 490
Editor's Table 490

ANSWERS TO CORRESPONDENTS
Flower garden .. 491
Trees and shrubs .. 491
Fruit garden 492
Kitchen garden .. 492
Miscellaneous .. 492

SOCIETIES 492

ILLUSTRATIONS.

Apple attacked by scab disease 483
The Rose garden in Chalkwell Park 484
One of the borders in Chalkwell Park 485
The new Tea Rose Mrs. Herbert Stevens 486
Seedling Pinks on a dry wall in Wales 487
Grease-banding fruit trees 488, 489

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, *Tavistock Street, Covent Garden, W.C*

THE MODERN DEVELOPMENT OF THE DAHLIA.

TWO years ago, when the amalgamation of the National Dahlia Society and the London Dahlia Union was effected, many lovers of the flower felt that a new era had dawned for the Dahlia. That their predictions were correct has been proved conclusively by the two excellent exhibitions which have been held this year, the most recent one at the Royal Botanic Gardens, Regent's Park, on the 20th ult., a report of which appears on another page. Previous to the amalgamation referred to, there were many who considered, and not without a certain amount of justification, that those varieties specially adapted for garden decoration were not receiving the full measure of support from the National society that they deserved; but, happily, all this is changed, and we now find the society taking a very broad view of the flower for the advancement of which it exists.

Just how far the change in public taste is responsible for this broadening of the policy of the society it is difficult to say, but there is no doubt that at present there is a greater demand for those varieties which are useful alike for the garden, house decoration, or exhibition tables. We may reasonably take it as indicative of the change that has been effected when we find in the society's "Annual Supplement and Conference Report" for this year lists of four distinct types of Dahlias given for the first time, viz., garden Cactus or decorative, giant decorative, Collarette and Pæony-flowered. Although an annual supplement to the official catalogue has been published each year since 1904, neither of the types mentioned above has previously been included, so that, as far as official recognition is concerned, these types may be regarded as quite new developments, though, of course, they have been known to growers for some time, and the giant decoratives include some that may be regarded as old varieties.

Of these new types none will be more welcomed by those who appreciate beautiful flowers outdoors than the garden Cactus varieties. There must be many who have paid dearly for their experience of Cactus Dahlias in the past. The novice visiting an exhibition and seeing there the glorious flowers of this section would certainly be induced to buy some, at least, of those which appealed to him, in blissful ignorance of the bitter disappointment that awaited him when his precious, newly acquired Dahlias were due to flower the following autumn, and when they proved to be so shy that they effectually hid their weak and short-stemmed flowers in a mass of foliage. With the advent of the garden Cactus type all this has changed, and we now have a good list of varieties with long, stout stems that elevate the flowers well above the foliage, and so create a beautiful effect in the garden as well as rendering the flowers suitable for cutting. It is true that the flowers of these varieties as yet are rather smaller and perhaps slightly less refined than the older Cactus sorts; but who will say that the National Dahlia Society is not doing the right thing in encouraging this class of flowers by offering certificates for new varieties and arranging classes and giving prizes for those already in existence?

In the Collarette section we get a most effective type of flower, similar in form to the singles, but having around the base of disc, within the petals, abortive growths of a distinct colour, these forming the collar. For creating a bright and effective display in the garden they are of service, the varieties generally being free-flowering. When the Pæony-flowered varieties were first shown a few years ago, many Dahlia experts freely expressed an opinion that they were doomed to a speedy demise; but, contrary to the most sanguine hopes, they have met with a warm reception from the general public, and have evidently come to stay. It is true that already they have been considerably improved, and the latest varieties give us flowers of much better form and more pronounced and distinct colours than were to be found in the sorts first introduced. The stems, too, have been improved, so that the flowers have lost much of that floppiness that detracted from the earlier varieties. For creating bold masses of colour in the garden or on the outskirts of the woodland, the Pæony-flowered Dahlias are well adapted, their vigorous growth and freedom of blossoming requiring a broad scheme of planting to show them to the best advantage.

It will be seen, then, that the present policy of the National Dahlia Society is to centre its energies on those sections which have been neglected in the past and which are specially adapted for decorative purposes, and the steady influx of new members indicates that the right

course is being taken. Any floral society, to be of real value, must progress with the times and encourage all sections of the flower to which it is devoted, and not, as was at one time the case with several societies, devote its whole energies to the exhibition tents. In Mr. E. F. Hawes of the Royal Botanic Gardens, Regent's Park, the National Dahlia Society has a most energetic hon. secretary, and he will be pleased to furnish any prospective members with full particulars concerning the work of the society.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 3.—National Fruit Growers' Federation Meeting at 2 p.m.

October 5.—National Chrysanthemum Society's Early Autumn Exhibition at the Crystal Palace (two days). The floral committee will meet at the Crystal Palace on the first day of the show.

Our Special Rose Number.—As the planting season is just about to commence, we shall devote the greater part of our next issue to Roses. In addition to numerous articles and photographic illustrations dealing with various phases of Rose culture, including the commoner pests of the plants, a coloured plate of that wonderful Rose Juliet will be given.

The National Vegetable Society's exhibition.—At the time of going to press the first exhibition of vegetables in connection with the above society is being held in the Horticultural Hall, Vincent Square, Westminster. It is pleasing to note that practically all classes are well filled, and that the rarer or little-known vegetables have received proper attention from growers. Next week we hope to publish a full report of the show, with illustrations of some of the most interesting exhibits.

Leaflets on horticulture.—The Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W., has just published leaflets on Celery leaf-spot (Phyllosticta apii), a disease that is very prevalent this year; leaf-shedding in conifers due to Botrytis cinerea; Cucumber and Tomato canker; Strawberry cultivation; and the winter washing of fruit trees and the treatment of neglected orchards. Copies of these leaflets can be obtained, post free, from the above address, and letters of application so addressed need not be stamped.

French Horticultural Society of London.—The annual bulletin of the above society has just come to hand, and, as usual, is full of interest for those of its members who are, from various causes, dispersed all over the world. The record of the past year's work is satisfactory in the highest degree, and progress is still being made. Numerically and financially the society has increased, and in the 172 printed pages of matter before us there is ample evidence of the high appreciation, both at home and abroad, of the work accomplished. An excellent portrait of Sir Albert Rollit forms the frontispiece, with an appreciative biographical notice. There are reports of the various monthly meetings, and a rather full one of the annual dinner, held at the Café Royal in January last under the presidency of M. Lalande, the French Consul-General. The society has been established over twenty-one years, and has done much to improve the relations between English and Continental horticulturists. Among its patrons are men of the highest status on both sides of the Channel. English gardeners who wish to find places abroad, or French-speaking gardeners who require situations in England, find the society an invaluable medium. The president, Mr. George Schneider, is deserving of the greatest praise for the successful way in which he has for so long directed the operations of the society.

"Australian Plants."—Under this title Messrs. Whitcombe and Tombs, Limited, Melbourne, Australia, are publishing a book by Mr. W. R. Guilfoyle, late Director of the Melbourne Botanic Gardens. The work will apparently include an alphabetical list of Australian plants, with their common names, as well as the natural order to which each belongs. We also note that other sections will be devoted to the treatment of Australian plants in gardens and parks, directions for sowing and raising Australian seeds, and a list of Eucalypti showing the confusion of common names that exists in this family. The volume is to be well illustrated from photographs. British and foreign orders received before November 1 will be supplied at 12s. 6d. net, the price subsequently being 15s.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Roses for table decoration.—While the dinner-table decorations with Roses at the recent exhibition of the National Rose Society were generally charming, yet it was evident that for grace, lightness and pleasing arrangement the single Roses were best. This is, at least, my individual opinion. I would suggest that another year the schedule shall be so worded that it is made quite clear that either all single or all double flowers are to be used in the respective classes, so that decorators might all work on the same lines and not be contingent on the tastes of judges for any particular colour or Rose. We have now such a wealth of single Roses that it would be much more interesting, both to competitors and to visitors, were, for once at least, the Roses used severely restricted to singles. It becomes then far more a test of tasteful arrangement than is now the case, when some favourite variety may, rather than arrangement, dominate the award.—A.

Late Strawberries.—I was interested in the note on late Strawberries by Mr. C. Blair (page 439). Mr. Blair, however, advances the claims of two varieties that in so many gardens have been discarded or reduced to small space, namely, Countess and Fillbasket. Neither is new, and the first has left us so long that its period of popularity cannot be safely given. That it is a beautiful berry I am prepared to admit, and its flavour remains its most outstanding feature. But its crop was so small that we were constrained to discontinue its culture. Fillbasket, on the other hand, was over-productive, to such an extent that quality, colour and softness of flesh each became a serious fault. As a market Strawberry in this locality it was resolutely refused by the purchasing public; its colour was unattractive, and the fruits became so soft that they could be neither handled nor eaten. Leader, another variety named by Mr. Blair, had a successful career for a time, but deterioration in constitution and fruit quality was made an excuse for its removal. The introduction of Kentish Favourite brought it again into temporary prominence, for it was early recognised as Leader under a new guise, and as such was again discarded by many who had adopted it. We have, however, not done so entirely, but reserve it for a modified system of annual cultivation. A bed of from 300 to 400 plants is now planted each year, the site given being a south border, from which early and fine berries come in fairly large quantities. These are ready a little before Royal Sovereign. Once the crop is cleared, steps are taken to layer advancing runners, so that new beds can be planted in August, a course that is both profitable and pleasing in early Strawberry-time. Directly this planting of new beds is complete, the parent bed is destroyed and another winter crop succeeds it.—W. STRUGNELL, *Rood Ashton, Wilts.*

Crab-Apple John Downie.—If the qualities of this little fruit were well known I feel sure it would be much more grown than it is at present. Our trees here are loaded with the cherry-coloured Apples, which are about the size and shape of a pigeon's egg, and they are of very pleasant acid flavour. We are gathering them to be made into jelly, which is most delicious. I often wonder if any hybridist has ever tried crossing the above with a dessert Apple, such as Cox's Orange Pippin. One would expect to be rewarded with hybrids of fine colour and flavour from such a cross.—F. HERBERT CHAPMAN, *Rye.*

The season in County Kilkenny.—The past season has been one of the coldest and most sunless on record. The rainfall has been much above the average, and since May 1 the barometer has never reached 30·0. Rain fell on twenty-seven days during August, the total for the month being 7·31 inches, the highest for any month during the past twenty-five years at least. The fruit crop is in better condition than one would expect considering such an adverse season; but a fine sunny autumn is necessary, or the wood will not ripen satisfactorily. Fortunately, the weather is now showing marked improvement, no rain having fallen during the first nine days of September.—CHARLES W. BENNETT, *Castle Gardens, Kilkenny.*

Saxifraga paradoxa.—May I point out to my friend Mr. Arnott anent the above that, accepting the evidence afforded by the illustration on page 463, there would still appear to be abundant room for confusion, even though "we drop the Aizoon and call it plain and unadorned S. paradoxa," inasmuch as there is a species known by the latter name regarded as synonymous with S. pygmæa. This plant is well figured in the "Dictionary of Gardening," its very narrow, linear, much pitted and gracefully recurving leaves rendering it distinct from all at sight. Unfortunately, it is by no means common, and possibly is less vigorous than some, while it is remarkable rather for the great beauty of its silvery foliage than for its flowers. So far as one may judge from the picture in THE GARDEN, the illustrated example would appear to be as distinct from any S. Aizoon form as from that which I have in mind. As Mr. Arnott rightly observes, the troubles of nomenclature in this genus are very considerable, and are rendered greater by an entire absence of uniformity in the trade collections of these things. The readiness, too, with which these Saxifrages intercross in the wild state only renders the subject more complex and difficult. At one of the spring meetings this year at the Royal Horticultural Hall I noticed a plant bearing the name of S. paradoxa, and directed the owner's attention to it as incorrect. I gave a description of the true plant, which was quite unknown to him. Obviously Mr. Arnott's plant has a pronounced decorative value, and for that reason alone merits the prominence it has received.—E. H. JENKINS.

Thinning-out Raspberry canes.—Several years ago a veteran gardener raised the question in relation to flower border herbaceous plants as to whether it was wise to cut hard down the old stems that had carried flowers so long as they were green and had green leafage. His contention was that, having accomplished their work of carrying flowers, their sap nutriment, so long as in leaf, returned to the roots to help form stouter and stronger crowns for the following year's production of bloom. I have not seen that at any time experiment has been made with any such plants. So far as the cutting hard down of flower-stems the moment bloom is over in the one case, and leaving them to ripen leaves and wood in due course, Delphiniums, which bloom fairly early, would be excellent plants to employ for a trial of this description. All the same, it would be unwise to allow the flower-spikes to remain a day after the bloom is over, as the production of a large spike of seed-vessels is exhausting. The heads should be at once cut off just above the leafage. Reading "Shamrock's" note on the cutting down of old Raspberry canes recalled this suggestion of the old gardener, and it may be that very many Raspberry-growers who do not cut out their old canes so soon as the fruiting is over leave them in the belief that their existence, so long as having green leaves on them, helps to feed the roots, and in that way also the suckers then being produced to form the following year's fruiting canes. Very often more light and air are excluded from these newly forming suckers, which, being the strongest, it is desired to retain and ripen because nests of small suckers are allowed to grow up round them. Where not wanted for the making of new plantations, these small suckers should be removed early. Still, there is room for a testing of the result of early or late cutting down of old Raspberry canes, as is suggested for Delphiniums.—A. D.

Strawberries Countess and Fillbasket.—I think Mr. Blair's article on the above is rather misleading. Here, in the North-East of Scotland, they ripen with Sir Joseph Paxton. I grow a small breadth of Countess for its flavour alone, as it is a poor cropper always, and unless it does better in other places it could not be profitably grown as a market crop. Colour, or, rather, the want of it, is against Fillbasket and its new and improved variety The Cropper; they are also quite useless in wet weather. The best late Strawberry is Givon's Prolific; it never fails to produce a very heavy crop of fine-looking and good-flavoured fruit. The crop is so heavy that the plants must be well watered in dry seasons. Progress is also a good late variety; it is the strongest-growing Strawberry I know, and must have plenty of room. It is pale in colour, but, unlike Fillbasket, it colours and ripens rapidly, so that, though it is a soft fruit, I gathered a heavy crop this year, though rain fell almost daily while it was ripening. It has less juice in it than other Strawberries and tastes like a Banana. Laxton's Latest (if I have got it true) is not a taking variety; its first fruits are large, dark-coloured and rough-looking. I am giving it another trial. I think very few of the new varieties will hold their ground long. George Monro, sent out last year, will become a favourite, and I have secured and planted every runner. Profit and Reliance I am giving another trial. They have not done well this year. Reward, which is much thought of in some quarters, grows very differently with me, and did not fruit at all. The sorts I mainly rely upon are Royal Sovereign, Comtesse Héricart de Thury, Leader, Sir Joseph Laxton, President, Progress and Givon's Late Prolific. President sometimes fails me in wet seasons, but it is a fine fruit. I have grown fifty or sixty other sorts and found them wanting.—M.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plants Under Glass.

CALADIUMS.—Water may be gradually withheld from these and stopped altogether as soon as the foliage dies down. The tubers may be shaken out of the old soil and stored in dry sand in a warm temperature.

Euphorbia pulcherrima.—Plants that have been growing in cold pits will now require a warmer temperature. A house that is kept at 60° to 65° at night will suffice, but keep the plants well syringed. A little stimulant may be given if the pots are well filled with roots.

Bougainvilleas.—These plants will be better now if less water is afforded them, whether growing in pots or planted out. To ensure a good supply of bracts next season the wood must be thoroughly ripened and the plants given a rest.

APPLE ATTACKED BY SCAB DISEASE, FUSICLADIUM DENTRITICUM.
(*See page* 484.)

Cyclamen.—The earliest batch of these should be housed without delay, keeping them on the shady side of the house. If the roots are well round the sides of the pots, a little liquid cow-manure may be given occasionally, alternating it with soot-water.

Kitchen Garden.

Potatoes.—The lifting should be proceeded with at every opportunity, selecting dry weather, if possible, for the operation. Allow the tubers to lie on the ground for a few hours to dry, when they may be picked up and placed in a heap on the open ground. Where disease abounds, careful picking is necessary to sort out all tubers that are affected, and all haulm should be burned. When the crop is all lifted and heaped in the respective varieties, the Potatoes should be covered with dry straw and protected from the rains by tarpaulins, which may be taken off on dry days and replaced at night. Allowing the tubers to remain in these heaps for a week or ten days before storing greatly assists in the ripening. After this time they may be sorted and stored in the approved way. Some prefer to cover them with straw and earth in the open, while others keep them in a dry, dark shed.

Cabbages.—Plants from the second sowing will now be ready for planting out. This planting is an important one, and a good-sized portion of ground should be filled. The same advice that was given for the earlier plants also applies to these.

Parsley.—A frame should be planted with young seedlings. This will ensure a supply during hard weather.

Asparagus.—Where the growths are thoroughly ripe they may be cut off and the beds cleared of weeds. Afford them a top-dressing of good manure.

Rock Garden.

This department will now require a thorough overhauling to get everything into order for the coming winter. With a little care and attention at this season many of the most fastidious alpines will pass through the winter unharmed. Androsace lanuginosa, A. sarmentosa, A. Chumbyii and others must be protected from the rains by having a sheet of glass fixed over them. This can usually be managed with the aid of Bamboo canes and stiff wire. The same advice also applies to Onosmas, Edraianthus, Eritrichium nanum, Opuntias and Antirrhinum glutinosum. Any choice and tender subjects that one has doubts as to their hardiness may be lifted and wintered under glass. The hardy and early spring-flowering plants may be put out now, and there is no better time for planting Alyssum, Aubrietias, Arabis, Cheiranthus, Lithospermum, Erinus, Phlox, Helianthemums and a host of others too numerous to mention here. In the bog garden plant Primulas pulverulenta, japonica, rosea and denticulata. In planting the two first-named a liberal quantity of decayed cow-manure should be mixed with the soil. They are very partial to a rich soil, and readily respond to generous treatment.

E. C. Pooley.
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FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

Harvesting Crops.—Onions should by now be quite ripe; and the sooner they are got under cover the better. After gathering spread them out on a hard bottom to dry thoroughly. If possible, lay them in a frame facing the sun, for by so doing the bulbs can be kept dry during wet weather, which is of importance, as the Onion very soon begins to make roots if left long in a wet state. Carrots can now be dug up and stored for the winter. Probably the best place for them is in a cool cellar from which frost can be excluded. Lay out in layers with plenty of dry sand under and over the roots. They can be stacked to any convenient height. It is rather early yet to get up Beetroots, and Parsnips as a rule are best left in the ground until wanted. Salsify and Scorzonera may also be lifted and stored, although many leave these in the ground until wanted.

Fruit Garden.

Strawberries.—As I have already pointed out in this column, the planting of this valuable fruit in late autumn is sure to lead to disappointment. Very good results are to be had, however, by lifting the runners now and laying them in in nursery lines on a sheltered border, or, better still, in an old frame. By the middle of March these plants will be in fine order for setting out in their fruiting quarters. No fruit must be taken from them the first season. Much diversity of opinion exists regarding the cleaning of Strawberry-beds. Some hold rigidly to the belief that Strawberries are ruined by digging with a spade between the rows;

others, quite as successful, clear off runners and weeds immediately the fruit is gathered, and in late autumn mulch with manure. Another school notch down each side of the row with a sharp spade, and after having spread some rotten manure between the lines, dig in manure and runners, leaving the surface rough. Which plan is the best? I say that they are all right and all wrong. What I mean is that anyone practising either method on all kinds of soil would sometimes be right and sometimes be wrong. The no-digging method is the proper one for light, dry soils, while the digging between the rows is the only satisfactory plan on very stiff land. The middle plan works well on good medium loams. I have cultivated Strawberries on all three kinds of soil, and with excellent results. I have also studied the methods of other gardeners and noted results. The late Mr. L. Dow, than whom I have never known a better hardy fruit grower, was the first gardener I ever knew to dig deeply between rows of Strawberries. Having been trained in a garden where the digging, or, rather, shallow pointing, was done in spring, I at first thought that Mr. Dow's method was sure to end disastrously. On the contrary, I never saw finer crops than were annually picked in Newbyth Gardens. Another gardener of my acquaintance, who has a very stiff, clayey soil, never digs between his Strawberries, and has not had a crop these last ten years.

THE ROSE GARDEN IN CHALKWELL PARK, WESTCLIFFE-ON-SEA.

Flower Garden.

Cuttings.—There is yet time to secure more stock of several useful bedding plants should there be any scarcity. Indeed, the later, in reason, the Calceolarias are left, the better will they succeed. It is sometimes difficult to secure these at an earlier date, as side shoots are often very short. By now they will be in good order, and, being firm and short-jointed, are almost certain to root. Pansies and Violas may also yet be got in. Some good growers believe in October cuttings, and certainly, if given fair treatment, they make plants equal to those inserted a month earlier. Pentstemons may also be propagated yet with every chance of success.

C. Blair.

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THE FRUIT GARDEN.

THE APPLE SCAB DISEASE AND ITS TREATMENT.

PROBABLY no disease of fruit in this country has attracted more attention than Apple scab or black spot, which causes the formation of rusty or black, scurfy, round spots on Apple fruits, and in certain varieties, especially, perhaps, in the premier dessert Apple Cox's Orange Pippin, deep cracks. The appearance of the fruit is spoiled, even in the mildest cases, and in the worst the fruit is deformed and probably rendered altogether unfit for use. Further, such scabby fruit does not keep well, for other fungi find a ready entrance on the scabby spots and cause the rapid decay of the fruit. The fruit illustrated on page 483 was sent by a reader, and the spots and large, deep cracks can easily be seen.

The cause of the spotting and cracking is the attack upon the fruit of the fungus Fusicladium dentriticum. Unfortunately, in the majority of cases the presence of the fungus is not noticed until it attacks the fruit. Then, there are comparatively few gardens in which it cannot be all too easily seen, while the markets are full of diseased fruits. The knowledge that it is present, though at that stage it is too late to do anything to remedy the state of affairs, may, however, be some gain, for it may lead to the adoption of measures of prevention in the succeeding year. But it must be recognised that the fungus attacks not only the fruit, but the shoots and the leaves as well. It may often be found on shoots up to four years old, causing a characteristic cracking of the bark (not to be confounded with that due to canker) often attributed to the action of frost. It is largely from the fungus in these shoots that the disease starts the next spring, and it is obvious that anything that can be done to remove this source of infection should have attention. Therefore, the first recommendation is to prune away all dead and dying shoots and burn them. To the same end it is well to gather up and destroy all diseased fruit and foliage. Drenching the tree while it is dormant with copper sulphate at the rate of 1lb. to 25 gallons of water will do some good, but it often fails to reach the mycelium of the fungus secreted in the tissues of the shoots. The spring and summer treatment is to spray with Bordeaux mixture at half the strength used for spraying Potatoes. The first spraying should be given just before the buds open and another when the petals have fallen, again three or four weeks after, and perhaps again, this depending on the virulence of the attack and the chance of infection from one's neighbours' trees. It is obviously important to spray all trees, whether they are fruiting or not, since this will tend to reduce the amount of fungus on the shoots. Scientist.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

ROOT CROPS.—The vegetables which are comprised in this most important section, including as the chief Beet, Carrots and Parsnips, demand attention at this season of the year, and the cultivator who neglects to accord it will inevitably lose seriously, since he will not have the use of the palatable and nutritive roots during the winter when they are so much esteemed. It is necessary that the lifting of the crops, if it is not already in hand, shall be commenced at once.

Of the three principal kinds named Beet is the most tender and liable to injury from frosts; but, at the same time, it is wise to let the tops become frozen before the harvesting is started. Upon reaching this stage get the roots out of the ground as quickly as possible; and it is surely superfluous to remind even the veriest tyro that infinite care is imperative, as bruising or cutting the skins spells bleeding, loss of colour and the practical worthlessness of the crop. Still keeping the bleeding in mind, the worker must screw off the tops at least 2 inches above the crown, and not trim hard down to it as is commonly done. The actual storage is usually done, it is much to be feared, in a haphazard sort of manner, which results in shrivelling and decided loss of quality. Any place where the temperature is equable will suit, but the roots should always be put in square or oblong piles alternately with sand or fine, dry soil with a view to keeping them plump and fresh for as long a period as possible. Following the Beet will come the Carrots, which should also be handled with proper care, although there is not, with them, the risk of such disastrous results as in the case of Beet. The method of storing should be that already suggested. With Parsnips it is most undesirable to lift for storage. The roots are perfectly hardy, and it is a matter for regret that, no matter how carefully the thing is managed, they invariably lose in flavour immediately they are out of the ground. If it is within the bounds of possibility, the beds should be covered with some protective material, not with the idea of keeping out frost because it might injure the roots, but because the soil may get so hard that lifting for use when required may be out of the question. If this can be arranged, the rule might well be to lift each week-end a sufficient number of roots for the succeeding seven days, in which time the loss of quality will be scarcely perceptible. If there are sound reasons why this course cannot be adopted, then the roots must be harvested and stored as already advised, carrying out the work before hard frosts set in in October or November. In the case of both Carrots and Parsnips the tops may be severed practically on the crown.

Spring Cabbages.—The planting of these will proceed apace from the present time onwards to the end of the month, and it is imperative that thoroughly cultivated sites shall be prepared where the soil is in good heart; but the excessive use of organic manures is to be deprecated, for the simple reason that they are apt to encourage a gross growth that will not withstand the varied weather of the winter. Weeds must be kept down in beds already planted; and should it be thought that the earliest are advancing too fast, go over the whole and tread the soil rather firmly up to the stems with a view to giving a slight check to progress. This crop is so extremely valuable that no effort must be spared that will help to ensure a perfect bed. Those who, perforce of circumstances, have to purchase their supplies of young plants should do their utmost to procure a true stock of Flower of Spring; it stands wonderfully well, is not prone to bolt, and the quality is splendid.

Manure for Mushrooms.—Those who cultivate Mushrooms—and there are few amateurs who do not try their hands at the task nowadays—must see to the collection and preparation of suitable manure, so that as soon as a sufficient bulk is ready beds may be made up in suitable places for cropping in the winter. The best straw manure should be procured for the purpose, and the long stuff must be shaken out of it and put aside for use as covering to the beds after the spawning has been done. Care must be taken to see that the manure does not burn itself out when in the heap, or it will be useless. H. J.

THE ROSE GARDEN.

A ROSE GARDEN BY THE SEA.

MANY visitors to Westcliffe-on-Sea were surprised last June by an announcement in the local papers that the Rose garden at Chalkwell Park would be thrown open to the public. Even some of the old inhabitants of this seaside resort were unaware that a Rose garden was in course of formation. It was planted in the early spring of 1908, and is an example of commendable reticence on the part of the authorities, who desired the Roses to become established before opening the garden to the public. Those who know Westcliffe-on-Sea must have noticed the marvellous display of Roses to be met with in many gardens along the front overlooking the sea, and also in gardens in some of the more fashionable avenues of the town, and the residents have not been slow to take advantage of the splendid Rose soil that seems to abound on every hand. Doubtless before long this place will be noted for its Roses all over the country, for it contains among its large population so many City men who are ardent devotees of Queen Rosa.

Chalkwell Park and House, which belong to the Borough of Southend-on-Sea, and which were formerly private property, form a most beautiful spot, abounding in grand deciduous trees and some very fine conifers. The grounds are well laid out and the beds planted with all the best up-to-date bedding plants. In one of the accompanying illustrations we have a view of one of the borders, with splendid bushes of Hybrid Perpetual Roses in the background and Verbenas and Nemesias in the front, these being edged with that charming Viola Maggie Mott. At the end of the path is the entrance to the new Rose garden.

Visitors coming unawares into this delightful spot cannot fail to be charmed with the prospect before them. A large plot of land some three-fourths of an acre in extent, and overlooking the sea, has been skilfully laid out by the borough engineer, Mr. E. J. Elford, who is a keen horticulturist and a very successful exhibitor at the local shows. In this Rose garden there is an entire absence of overcrowding, which so often mars the modern rosary. Pillars of ramblers are well located, and at the time of our visit were very effective, that showy rambler Rubin being much in evidence. The pillar in the centre of the circular bed seen in the illustration is François Guillot, a most beautiful lemon white wichuraiana variety that should be grown more than it is. The beds contained fine bold masses of such Roses as Mrs. Sharman Crawford, Captain Hayward, Ulrich Brunner, Hugh Dickson, La France, General Jacqueminot, Clio, Tom Wood, Grüss an Teplitz, Armosa and Caroline Testout, splendid half-standards of Frau Karl Druschki, Killarney and Dean Hole being suitably interspersed.

At the west end a fine mass of Rugosa Blanc Double de Coubert and Rugosa alba showed how they appreciated the soil. We missed the beautiful apricot and yellowish Hybrid Teas, of which there are now so many; but we understand that Mr. Elford intends to add many of these during the coming planting season. Hedges of Roses are also contemplated, so that when finished this Rose garden will be one of the best near London. Magnificent border Carnations were a special feature also, and did great credit to the skill of the able head-gardener, Mr. G. Little, whose experience as superintendent of one of the London parks is in no small degree reflected in the Chalkwell Park Gardens.

ONE OF THE BORDERS IN CHALKWELL PARK.

NEW ROSES OF THE YEAR.

(*Continued from page* 475.)

Beaute de Lyon (Pernetiana, Pernet-Ducher, 1910).—This is another of the wonderful colours which the wizard of Lyons has produced. The colour is coral red, slightly shaded with yellow. In the way of Soleil d'Or, but the blooms are not so full and have deeper petals.

Chin Chin China (Chinese, Hobbies, Limited, 1909). A yellow sport of the popular Mme. E. Resal, and as such must be a useful bedder.

Claudius (H.T., B. R. Cant and Sons).—This is one of those Roses that seem to belong to the Hybrid Perpetual class rather than to the Hybrid Tea. It is a splendid variety, with full, globular flowers of a glowing rose colour, and specially sweet-scented. Will doubtless prove a very useful sort.

Climbing Lady Ashtown (H.T., Bradley, 1910).—A grand acquisition, and one that will be very useful for specimen pillar plants in pots or for standards, walls or pillars in the open. Flowers identical with original sort—if anything superior; at least, that has been my experience of several of these climbing sports.

Climbing Lady Moyra Beauclerc (H.T., Paul and Son, 1909). — A valuable addition to the wall and pillar Roses. These climbing sports frequently revert to a dwarfer form, but this dwarf form is often more vigorous than the original, so that by working from them we obtain a more vigorous strain, as in the case of Mrs. W. J. Grant.

Colonel Leclerc (H.T., Pernet-Ducher, 1909).—A good addition to the red Hybrid Teas. It has the good qualities of Caroline Testout, its seed parent, and has inherited some of the colour of Horace Vernet, its pollen parent.

Coquina (Wichuraiana, Walsh, 1908).—A very pretty rambler that might be termed a pale pink Hiawatha, blooming at the same time, and with flowers just as durable. The only fault about it is that the flowers do not expand well; they remain half-closed, which detracts from its otherwise effectiveness.

Countess of Shaftesbury (H.T., Hugh Dickson).—This was a gold medal Rose of last year, and one of the best. Evidently the raiser thinks well of it, for he is not sending it out until next spring. The colour is a very lovely satiny pink, and the form exquisite.

Creme Simon (H.T., Guillot, 1909).—A lovely blending of creamy white, salmon and carmine. The growth is vigorous, and the flowers are very large, double and well formed.

Cynthia (H.T., William Paul and Son, 1909).—Flowers lemon yellow, shaded white.

Daniel Lesueur (Hybrid Rugosa, Cochet-Cochet, 1908).—Quite a hybrid, resembling the climbing Teas more than the Rugosas. Flowers are nankeen yellow, tinted with salmon. Will make a fine pillar of vigorous growth.

Deutschland (Hybrid, Kiese and Co.).—This Rose was well shown at Liegnitz recently, and is another proof of what may be accomplished by using Soleil d'Or as pollen parent, in this case with Frau Karl Druschki as seed parent. The colour is coppery orange, with rosy cream ground colour, and the foliage is bright mahogany, which contrasts splendidly with the flower.

Diabolo (Wichuraiana, Fauque et fils, 1908).—A grand colour, vivid scarlet red, shaded black. Semi-double, sometimes single. Not specially profuse in flowering, but very attractive. Growth vigorous, but not rampant. Makes a fine, free bush, with growths procumbent on the ground or on roots.

Duchess of Wellington (H.T., A. Dickson and Sons, 1909).—One of the triumphs of Newtownards. A glorious colour, unequalled among all the Hybrid Teas. A sort of saffron yellow Killarney, with crimson stains when in bud. Most charming. Fancy a Rose of this colour with larger and more substantial petals than Killarney.

Edward VII. (Dwarf Polyantha, Schultheis Brothers, 1910).—A Rose named by the gracious permission of our late beloved King. Will surely find a place in every garden. It is a seedling of Mme. Norbert Levavasseur, which it resembles in growth, but is more shapely, and in colour a beautiful pink.

Eisenach (Wichuraiana, Kiese and Co.).—After the style of Leuchtstern in bloom, but more intense.

Elizabeth (H.P., B. R. Cant and Son).—May be termed a pink Druschki. Fine, but, like its parent, scentless. If raisers would employ fragrant sorts as pollen parents, they would more frequently ensure fragrance. I have raised seedlings from Druschki that have been exceedingly sweet-scented by adopting this plan.

Elsie (Hybrid Wichuraiana, William Paul and Son, 1910).—Flesh-coloured pink, with deeper centre; large; first-class.

Entente Cordiale (H.T., Pernet-Ducher, 1909).—A grand flower of the type of Duchess of Portland, and deliciously sweet. It possesses Chatenay growth, so should be a fine addition to our garden Roses. P.

(*To be continued.*)

NEW ROSE MRS. HERBERT STEVENS.

AMONG the new varieties that received special honour at the National Rose Society's autumn show this year none was more pleasing than the one illustrated. In Rose Mrs. Herbert Stevens we have a beautiful white flower of the Tea section which is as fragrant as it is fair, a great consideration in these days of scentless Roses. As will be seen in the accompanying illustration, the flowers are beautifully pointed, and the plants are said to possess great vigour and to be very free-flowering. This variety was shown by Messrs. S. McGredy and Sons, Portadown, and received the highest possible award, viz., a gold medal.

THE FLOWER GARDEN.

SEASONABLE NOTES ON CHRYSANTHEMUMS.

WITH the advent of cooler weather we are reminded of the near approach of the Chrysanthemum season, and in a little while there will be a plethora of richly coloured blossoms available for all who value these flowers for indoor decorations. For weeks past the new single-flowered Chrysanthemums that are grown in the open border have been making quite a remarkable display. Old plants that were left in the border throughout last winter have blossomed profusely on and off since the later days of May, and during August and September the plants have been all that one could well desire. These early-flowering single Chrysanthemums are extremely hardy, and on this account should be welcomed in the gardens of all.

THE NEW TEA ROSE MRS. HERBERT STEVENS.

Under the auspices of the floral committee of the National Chrysanthemum Society a trial of early single Chrysanthemums has been proceeding at Merstham, Surrey, in the nursery of Messrs. W. Wells and Co., Limited. Quite recently the committee inspected the plants to determine varieties that were too much alike and to make selections of the better varieties of the different tones of colour. Marie Corelli and China, both yellow varieties; Esther and Charming, pink; and Phyllis Cowley and Florence Gillham, white, in their respective colours were considered to be too much alike, and the first-mentioned in each case was considered the better variety. Generally speaking, the double-flowered Japanese kinds, with which readers are probably mor familiar, are not flowering quite so early as usua There are exceptions, but these are few. Thos that are already fully opened appear to posses quite remarkable colour, the cooler weather of th past summer evidently being responsible for thi The boisterous weather of late has imposed a dut on growers of carefully staking and tying the ampl growths of these outdoor varieties. In man gardens the plants appear to be bunched up tightly so that their pleasing contour is lost entirely. T obtain the most from these plants they should hav two or three stakes or Bamboo canes inserte among the growths equidistant, and the branche should be lightly, though securely, looped to th stakes. This allows a little play when the winds ar boisterous and serves to keep them secure, and a the same time preserves the beauty of the plants.

Early flowering and later-flowering decorative Chrysanthemums should be flowered on terminal buds. These latter buds differ in their character very considerably. In some cases they develop in dense clusters, and in such instances they should be thinned out sufficiently to enable the blooms to evolve in proper form without being crowded. Those who prefer large flowers should retain the largest and best-shaped bud in each series or cluster of buds; but where really beautiful sprays of good quality decorative blossoms are desired, about three terminal buds should be retained on each spray, and these should be as nearly as possible equidistant. These sprays, later on, may be cut from the plant with long and useful stems, and their arrangement in the various receptacles of the house then becomes a very simple matter.

In anticipation of housing the midseason and late-flowering varieties in the near future, growers should lose no time in getting the glass structure in order. Any cool house wherein provision is made to exclude frosts may be used for housing the Chrysanthemums. The hot-water apparatus should be in proper working order, the ventilators overlooked and, most important of all, broken or cracked glass in the roof should be renewed, so that the roof may be drip-proof. Cleanse walls, benches, &c., in readiness for the reception of the plants, and as a protection against the sun the plants should be shaded by a blind either inside or outside. All plants that have buds showing colour ought to be housed at once. D. B. CRANE.

PINKS ON A DRY WALL.

Two years ago last spring the Pinks shown in the illustration were part of a threepenny packet of seeds, and the dry wall over which they hang was being built. Last summer they were good, but the photograph taken in June this year shows them at their best. They vary in colour. Some are all white, some all pink, others white with a rich crimson centre, or pink with a dark maroon ring; single and double, plain and fringed, all are represented along this 30 yards of wall. The cool grey of the foliage with the warmer grey of the old stones form an ideal background to the brilliant tints of their clumps, which hang downwards in heavy

THE NEW ROSE JULIET

festoons. The Pinks were put out from the seed-box when only a few inches high. Not only was the top of the wall planted, but tiny seedlings were inserted among the stones, so as to break what might have been a formal top-line. A good batch of cuttings are rooted in August, for one never knows what the winter may claim, and in the spring gaps can be filled up from this surplus stock.

Linda Vista, Abergavenny. E. M. Whitehead.

THE GREENHOUSE.

NOTES ON ORCHIDS.

Some Useful Epidendrums.

In the Epidendrums we find many species, which vary considerably both in size and habit. Some are small with Cattleya-like pseudo-bulbs, others have thin stems not more than 1 foot high, while the most showy section are more or less climbing in habit, attaining a height of 5 feet or 6 feet, and may be utilised in various positions. It is to this last-named group that I would call attention, for they are well adapted for covering an empty wall at the end or back of a greenhouse where the temperature does not fall below 50° Fahr., on pillars and other vacant places where they can be planted in a narrow box and trained to wire supports. Some growers use them as specimens; but whichever method is chosen, they must be kept well sprayed during hot and dry weather to encourage healthy growth and to keep down insect pests, of which thrip is the most troublesome.

Among the best for such a purpose are Epidendrum erectum, the brilliant orange scarlet radicans, o'brienianum, the yellow xanthinum, Wallisii kewensis and Boundii, an almost perpetual bloomer raised in the collection of Sir J. Colman, Bart. It will be noticed by the observant cultivator that numerous top growths are produced, which in time emit roots, and to keep up a thriving stock that will produce a wealth of bloom these must be taken off and several potted up to form a compact specimen to replace others that have become weak through old age or over-flowering. Epidendrums are not fastidious regarding soil providing it is kept in a sweet condition; but for beginners I would suggest a mixture of Osmunda fibre, peat and chopped sphagnum moss in equal parts, which ought to be pressed moderately firm about the base, while the boxes or pots should be filled one-third of their depth with drainage.

Two Epidendrums largely cultivated are E. vitellinum, a cool-house subject having glaucous foliage and cinnabar red flowers, and E. prismatocarpum, which requires a few degrees more warmth than the former. For those who desire sweet-scented plants, radiatum, Allemanii and fragrans are recommended. Among the dwarf-growing section are the rare Endresii, Endresio-Wallisii, and Armstrongii, a most beautiful and easily cultivated hybrid of uncertain parentage.

The cultural details are few, and no difficulties will be experienced if the temperature is not allowed to go above 60° with fire-heat, the rooting medium kept in good condition by top-dressing or repotting when a fresh batch of roots appear, and the plants never permitted to get dry, although water is required in less quantity when the bulbs are matured and during the winter months in the case of E. radicans and others of similar habit.

Epiphronitis Veitchii.—A few bigeneric hybrids have been raised by different nurserymen, but the one just quoted was produced by intercrossing the scarlet Sophronitis grandiflora and Epidendrum radicans. It is dwarf, and the individual flowers are similar to the last-named parent, but slightly larger and deeper crimson in colour. Frequent propagation of the side shoots is necessary to be successful with this pretty Orchid, and these are best taken off after the flowering period. Either pots or pans without side holes may be used, and a light position on the stage of the Cattleya house will prove most suitable, for a stuffy atmosphere must be guarded against, or the black spot will soon appear on the small leaves, and once it gets a foothold it is difficult for the plants to regain their former immunity from this disease. Sentinel.

TREES AND SHRUBS.

PLANTING CLIFFS BY THE SEA.

The question of cliff planting in this country is becoming a very important one. The primary object in view is, of course, to prevent the gradual shrinkage and crumbling away that goes on regularly in some parts and intermittently in others. The second object in view is to beautify the face of the cliffs, which in nearly all parts is exposed to strong winds and, at times, to showers of salt spray. Now, it would be very unwise to put in any plants too tender for such positions; the selection must be a good one, so that the plants will withstand the severe treatment they will inevitably receive. Not only must the shrubs and trees be wisely selected, but equally carefully planted with a view to their being beautiful as well as useful.

SEEDLING PINKS ON A DRY WALL IN WALES

I have had considerable experience of cliff planting during the past twenty-five years, and have noted many successes and a few failures. A very high but gradually sloping cliff was planted about twenty years back, and now it forms quite a pleasure resort; there are steep, level and nicely undulating paths, which are now well sheltered and make delightful walks. The trees and shrubs give to the cliff the appearance of a beautifully wooded hill, viewed either from the top or the shore below. The face of the cliff is also firmly held in the grip of the multitudes of roots.

There is a land drain at the top of this cliff, and I very much doubt whether the planting would have proved the success it has if the drain had not been laid. Inexperienced persons may give all their attention to endeavouring to stop the crumbling of the cliff by treating its surface only; but from time to time the earth falls, carrying with it both trees and shrubs. The cliff may remain intact for several years; then, when we experience a very rainy period, the land water, not the sea, causes the first breaking away of the face of the cliff. Of course, in some parts the sea encroaches and undermines the cliff. In such instances breakwaters and sea walls are the principal remedies, and must be carried out before any work on the cliff itself is attempted.

No doubt many readers have observed water trickling down cliffs in different places, but always just above a layer of clay or other adhesive substance. This is the water that, in time, works a lot of mischief. It percolates through the more open soil from the surface of the land above down to the firmer or more clayey layers of soil, and then runs to the nearest outlet on the bed of clay, and that outlet is, of course, the cliff face. In time, and when in greater volume, this land water causes huge cliff falls. I have seen many square roods and, frequently, many square rods of grass land, with portions of division fences, fall to the sands below, to be gradually but surely sucked up by the higher tides. This land water must be arrested in its flow towards the face of the cliff. A deep drain, resting on the firm bed of clay or other adhesive material, must be laid at a distance of about 15 feet from the cliff edge. At intervals of about 50 yards outlet drains must be laid to connect with the main drain to conduct the collected land water through the face of the cliff. The main drain must be filled up with material through which water will readily pass. Clay should not be used. By such a system of draining the face of the cliff will be kept dry and remain firm.

The following are suitable trees and shrubs for planting on cliffs: Sea Buckthorn, the Evergreen and Turkey Oak, Tamarisk, Willows, Wych Elm, the common, broad-leaved and variegated Hollies, Pinus insignis, P. Laricio, P. maritima and P. austriaca, Cupressus lutea and macrocarpa, Escallonias, Laurustinuses, Thujopsis dolobrata, Thorns, Sweet Briars, Sweet Bay, Sycamore, Lombardy Poplars, Aucuba japonica, Beech, Berberis, Broom, Buddleia globosa, double Gorse, Hydrangeas, Deutzias, Mountain Ash, Privet, Pernettyas, Maple, Bambusa, Choisya ternata and Olearia Haastii. The two latter are dense-growing and free-flowering. The Tamarisk should be largely planted at the foot of the cliff, as it will grow under tidal portions of the foreshore. Avon.

GARDENING FOR BEGINNERS.

GREASE-BANDING FRUIT TREES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Spring flower gardens without Wallflowers seem to be lacking in one of their essential attractions. A wealth of Wallflower blossom may be had at a comparatively small cost, as in cases where it is not possible to grow the plants at home they are not expensive to buy. Being hardy, there is little loss of among

1.—A GREASE-BAND IN COURSE OF PREPARATION. THESE BANDS SHOULD BE MADE OF STRONG GREASE-PROOF PAPER OR CANVAS ABOUT 6 INCHES WIDE.

them through severe weather. I have seen a grand display made by these plants in a cold, north-west aspect, where the sun's rays rarely reached them at any stage of their growth. This only shows how very valuable the plants are. Perhaps it is chiefly on account of the ease with which the plants can be grown that one sees so many puny specimens every spring. The inexperienced cultivator thinks it quite unnecessary to pay much attention to the plants, with the result that a poor show of flowers is seen. One nice bushy plant is worth more than three thin ones. To obtain the best, duly transplant the young seedlings in the autumn directly there is any vacant space. In some instances it is absolutely necessary that spring planting be done, but it should be avoided where possible. Autumn-planted Wallflowers get established before really bad weather comes, and then they are sure to give a good account of themselves in due course. Put in the plants firmly in moderately moist soil and avoid overcrowding. Polyanthuses and Primroses must now be planted in cool borders as soon as the soil can be cleared of other kinds of plants and be prepared for them. It is advisable to plant early in cool quarters, so as to give the plants a chance to get established before real winter weather sets in; then better results follow in spring.

Vegetable Garden.—Brussels Sprouts are among the first in the list of general winter green vegetables, and if a little attention is now bestowed upon the plants, the latter will bear finer sprouts. It is essential to success that every plant be well advanced before Christmas. The earliest will afford good basal sprouts early in November, and this is as early as is desirable. A very firm rooting medium should be the rule. Plants now growing freely must be examined, and if the soil is found to be loose, tread it down thoroughly; but do this work while the ground is fairly dry, not when it is wet and the soil adheres to the feet. The latest-planted winter greens of all kinds should be earthed up as high as possible; the stems are liable to be frozen just underneath the basal leaves, and if protected early by soil they will be comparatively safe, and the disturbance of soil between the rows now will not result in any damage to the roots. On open borders, but sufficiently protected from east and north-east winds, sow seeds thinly of winter Radishes. The soil must have been well manured for previous crops; then it will be ideal for the Radishes if deeply dug. Fresh manure must not be used. Lift Endive and replant in frames for blanching.

Greenhouse and Frames.—Poinsettias, with their lovely crimson bracts, are very welcome and cheerful-looking during the winter months. If they are carefully treated when taken from the frames, the plants will do very well in a warm greenhouse. They must not be left in cool frames after this week. When placed in the greenhouse see that the ventilation is ample, and also give water with much care, else the lower leaves will be sacrificed. Weak stimulants may be applied to assist in the development of the bracts, but they must not be given for about ten days after housing the plants. Rearrange the Primulas, Cinerarias, Calceolarias and Cyclamen in the frames, removing a few to the greenhouse for early flowering, so as to afford those in the frames more space in which to grow. A. A.

GREASE-BANDS AS PROTECTION AGAINST CODLIN AND WINTER MOTHS.

GROWERS of Apples are often much concerned because of the havoc caused by either or both the codlin and winter moths. The codlin moth larva is familiar enough to most persons, no matter whether they are or are not growers of Apples. They may have become acquainted with this pest through having become possessed at one time or another with a grub-eaten Apple. At this season there is usually a most prolific crop of the grub of the codlin moth, and this may be attributed to the windfalls, with which almost every reader is intimately acquainted. It is a very difficult pest to deal with, because the fruit on the trees cannot be sprayed with any solution without there being a risk of rendering it distasteful. The moths secrete themselves during the day and are difficult to catch on the wing in the evening.

Later in the season a large number of the grubs may be destroyed, however, by picking up and destroying the windfalls as soon after they have fallen as possible. These fallen fruits should be picked up promptly, because the grubs leave the Apples very soon after they fall. Instinctively they make for the trunks or stems of trees, climbing until they find cracks or crevices in the bark, where they secrete themselves and, within a covering of fine white web, become chrysalides. The moths appear in the early summer, and lay their eggs individually on the young Apples when the latter are about 1 inch in diameter, depositing the egg in each case near to the eye or calyx. In about ten days the caterpillar is an accomplished fact, when it forthwith proceeds to eat into the fruit. Subsequently the fruit falls to the ground. If the Apple has not fallen when the caterpillar is ready to leave the fruit, it lowers itself by a silk-like thread, ultimately secreting itself in a crack or crevice in the stem of the tree. The caterpillar or grub is about half an inch in length when fully grown, and varies from yellowish white to a flesh colour.

The winter moth is another of the serious pests that the fruit-grower has to contend with. This moth derives its name from the fact that it does not emerge from the chrysalis state until the early winter days, say, from early November until January. The female is wingless. Its habits are somewhat similar to those of the codlin moth. In the caterpillar stage they are rather more than half an inch long, of a pale green colour, faintly striped along the upper part of the body. By early June they let themselves down to the ground by silken threads and secrete themselves under the surface, where they change

2.—THE GREASE-BAND READY FOR USE. CART-GREASE MAY BE REQUISITIONED, OR SPECIALLY PREPARED GREASE MAY BE OBTAINED FROM HORTICULTURAL SUNDRIESMEN.

3.—A TRAP FOR THE CATERPILLARS AS SOON AS THE APPLES BEGIN TO FALL. IT IS MADE WITH FOLDED SACKING SECURED TO THE TRUNK OF THE TREE 12 INCHES TO 18 INCHES FROM THE GROUND, WITH THE FOLDED PART UPPERMOST.

into chrysalides, and remain thus until October, when the moths appear. A careful cultivator should anticipate the attacks of these grubs and moths, and take every possible means to protect his fruit trees against their ravages. In the immediate future, as I have endeavoured to show by describing the habits of these pests, the grower may safely anticipate trouble from these two sources, and this behoves him to make provision to provide means of trapping either the grubs or the moths of both subjects.

What are known as grease-bands have been found very excellent in preventing these pests climbing the trees. They are very simple contrivances, and any beginner who cares to take the trouble may easily do the whole of the work himself. Grease-bands should be about 6 inches in width, and may be made of strong grease-proof paper. Whatever is used, it must be durable. These bands should be securely adjusted in position about 18 inches to 2 feet from the ground. In Fig. 1 this preparatory work is shown. It is of the highest importance that the edges of the bands be tightly secured, otherwise it will be an easy matter for the pests to pass up the trunks of the trees underneath them. By placing grease-bands round the trunks of the trees in this fashion, the insects, of which there are usually a goodly number, are thwarted in their purpose; therefore, they fail to pass over and often die in the attempt. Fig. 2 aptly portrays a grease-band in working order. Cart-grease may be used for the purpose, or prepared material may be obtained from the nurseryman or horticultural sundriesman. The grease should not be allowed to come into contact with the bark of the trees.

To destroy the grubs of the codlin moth as well as the winter moth itself, a practice familiar to me is that of using pieces of old sacking some 9 inches wide and of sufficient length to encircle the stem of the tree. It is customary to fold this in half, then to make another fold rather less than half, and then to secure this with wire or stout twine 1 foot to 18 inches from the base of the tree, taking care, however, to leave the folded edge uppermost. The method of doing this is clearly shown in Fig. 3. Bands of this description should be examined frequently, say, once every week or rather oftener, and almost invariably quite a number of grubs will be found hiding in the folds of the sacking.

A very old-fashioned method is that of securing hay-bands round the trunks of the trees. This is an excellent trap for these pests, and is one that the merest novice may adjust very easily. These hay-bands should be wrapped round the stems of the trees about 18 inches to 2 feet from the ground, and in the early spring they should be removed and be burnt before the insects emerge from their chrysalis stage. Those who have adequate supplies of hay-bands may remove them as and when required, replacing them with new bands. Fig. 4 depicts a tree treated in this manner.

D. B. CRANE.

GIANT ROCCA ONIONS.

TRANSPLANTING.

THESE are general favourites with many cultivators, who sow the seeds in the autumn with the idea of obtaining large bulbs the following summer. It is not good management, however, to leave the young plants in the seed-beds until the following spring before they are transplanted. Many young plants so treated form thick necks or run to seed; then they are useless. When the Onions are about 6 inches high they should be transplanted, and there is no better time for this work than during the early part of October. It should be remembered that the Onions are to mature in the bed where they are now planted, and, consequently, the soil must be duly prepared. If very poor, put in soot at the rate of one peck to a square rod of ground and a good dressing of well-rotted manure. All added ingredients should be thoroughly mixed with the soil, and not be dug in carelessly or left near the surface. These plants are deep-rooting, and they will soon find the food in the soil. It is not necessary to tread down the soil at this season, as it will become firm enough during the winter. Put out the young plants with the aid of a trowel and try to preserve all the roots. The rows must be 1 foot apart and the plants in them 10 inches asunder.

SHAMROCK.

THE PROPER SOIL FOR POT PLANTS.

How much depends upon the rooting medium, especially as regards pot plants, only those who are experienced cultivators realise. I have been called in to examine plants in conservatories, where the owners have done the work of potting themselves, to give advice. In some instances when I have turned out the plant from the pot the whole of the soil has fallen to the floor, leaving a few stunted, decaying roots. The soil used had been taken from the vegetable borders, and was devoid of fibre and very sour. Roots could not live in such soil; in fact, it was as poison to them. Not only must we provide a good compost for our pot plants, but we should do so at the right time. There is no better season than the present one for this work, as some considerable time must pass before the newly cut turves will be in a fit condition to use. The question may be asked, When are the turves in a fit state to use? the answer to which is, When the grass has died, so that there will be no fresh growth from the roots. For the majority of pot plants turves stacked for three months will be quite suitable.

B.

THE TOWN GARDEN.

LIFTING TUBEROUS BEGONIAS.—At the time of writing, the weather so far during September has been practically ideal, *i.e.*, dry and warm, with a good deal of sunshine, conditions which have been eminently suitable for the flowering of these Begonias. There are, however, signs of rain, and probably before these notes appear a spell of autumn rains may have begun. It is in circumstances such as these that the Begonia, both of leaf and flower, soon becomes disfigured, no longer possessing a beauty to be desired. At the same time, too, the places these things occupy are frequently required for bulbous plants for spring-flowering; hence the not unnatural question arises, "What is to be done?" In ordinary garden parlance the Begonia should be left alone till cut down by early autumn frosts, though some of us may wonder what beneficial effect so sudden, and often quite unexpected, a check may have upon the plants. Indeed, it has none.

AS A USEFUL REMINDER to the sometimes slow, apathetic worker it is, however, of value, inasmuch as it decides unmistakably that the end of the flowering season with such things has arrived. Those, however, who require the beds at a date prior to frosts appearing will find that no appreciable harm will be done to these plants if they are lifted with a ball of earth and temporarily laid in elsewhere. As a matter of fact, the tuberous Begonia is in these respects a most accommodating plant.

4.—AN ORDINARY HAY-BAND FIXED ABOUT 18 INCHES FROM THE BASE OF AN APPLE TREE. THIS FORMS A GOOD HIDING-PLACE FOR THE LARVÆ.

Moreover, it has been built up through the season, and has not to mature woody stems or shoots like many plants; hence the sudden appearance of frosts while the plants are fleshy and green constitutes a check far more severe than any lifting a day or two prior could possibly do. There is, of course, a real danger in the early lifting of the plants in

their green state and drying them off straight away. What is now recommended is moderation; the other is ridiculous excess.

ROSE CUTTINGS.—If there is one thing more than another that the intelligent amateur should take seriously to heart it is the raising of Roses from cuttings, so that presently he may become possessed of a garden full of plants of these, and with the strong recommendation that they are upon "their own roots." It is not that by so doing the amateur is enabled to refer to the plants as the result of his own handiwork so much as the obvious and great advantages of longevity, the perennially increasing vigour of the plants, and the entire absence of the shoots of alien stocks about the base. The great majority of small amateur gardeners are unable to discriminate between the growth of the Rose and that of the stock upon which it is worked, and over and over again I have seen the shoots from the Briar and Manetti being fostered and encouraged to the detriment of all else. Such growths unchecked presently encompass the ruin of the plant, and prior to that not infrequent happening there have been disappointments galore.

THE BEST CUTTINGS for the purpose in mind are those that occur on the early flowering shoots of the plants—a secondary growth placed a few inches below where the blossoms appeared. Such as these shoot off at a tangent, so to speak, from the stem, and by inserting a sharp knife into the latter at the base of such a growth the cutting is detachable by what is known as a "heel," *i.e.*, the basal shield or growth formed when the lateral bud forced its way from the stem. An essential condition of a good cutting of a Rose is that the wood be moderately firm, apart from which the length of the cutting—while those of about 6 inches or 8 inches are advised—is unimportant. The vigour of growth in the Rose and the variableness of the varieties are such as to preclude laying down any hard-and-fast rule as to length. Cuttings of Roses may be rooted in pots of sandy soil or under a hand-light or cloche. Cold frame treatment is best at this season owing to the slow process of root formation. Those readers of THE GARDEN who have neither time nor the facilities to root their Roses should apply to leading growers for such without delay. E. H. JENKINS.

TRIALS OF GARDEN DECORATIVE DAHLIAS.

HAVING in previous years had trials at Wisley and at Slough of both Cactus and Pompon sections to test their merits for garden decoration, the committee of the National Dahlia Society this year accepted an offer from Messrs. J. Cheal and Sons of Lowfield Nurseries, Crawley, to have on their grounds a large trial of single Dahlias for the same object. A considerable number of members of the committee and others journeyed to Horley Station on the 12th ult., and were there met by vehicles kindly provided by Messrs. Cheal, and enjoyed a delightful ride to Charlwood, where they were cordially welcomed. Thence they at once proceeded to view the huge breadth of single Dahlias planted in a fully open, exposed position, the plants, very strong and evidently unthinned, having been treated as for garden culture. Many of them were from 3 feet to 4 feet through, and literally covered with beautiful flowers. With so many to select from it became needful to exercise considerable care in granting awards, especially having in mind primarily garden beauty, but also quality or form, as well as distinctness in the flowers. In all so rigid was the judgment that only twenty-three were finally honoured by the committee with three marks. These were Butterfly, Snowdrop (both whites), Lady Bountiful, Ensign, Amy, Winona, Rosemary Bridge, Owen Thomas (probably the most beautiful of all), Kitty, Fugi San, Columbine, Letty Seale, Miss Morland, Miss Roberts, Royal Sovereign, Peggy, Rosebank Scarlet, Vesuvius, Cardinal, Mrs. Joynson Hicks, Rosy Gem, Mrs. W. Hood and Morning Glow. The raisers or senders of these diverse varieties included Messrs. Cheal, Seale, Dobbie, Mawley, Girdlestone, and Dickson and Robinson. A few days earlier than this visit we found among others very beautiful and effective Serita, Mikado, Hector, Glencoe and Elaine. The interposition of a white frost had at the time of the committee's visit caused the flowers on these and some other varieties to be unduly thinned. Readers who may wish to know these varieties and colours should obtain a catalogue from the firm. Of Cactus forms, so few of which are at all garden decorative, the following six were the very best out of a huge collection: Mrs. Paton (scarlet), Mrs. Landale (pink on gold), Snowdon (pure white), Mrs. J. Husmar (coppery orange, suffused pink), the Hon. Mrs. Greville (orange yellow, flushed salmon) and Buttercup (yellow). Of Pompons for garden beauty and variety, out of scores the best were Daisy, Elsa, Minnie, Mars, Nerissa, Virginia, Zerlina, Tommy Keith, Mignon, Crusse, Girlie, Adelaide, Florence, and Annie Hilton. Messrs. Cheal generously entertained the party to lunch and tea, and were warmly thanked for all their great kindness on behalf of the society by the president, Mr. Edward Mawley. A. D.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to the Editor, 20, Tavistock Street, Covent Garden, London, W.C.

LONICERA HILDEBRANDIANA FROM SOUTH DEVON.

Mr. W. Fitzherbert, Kingswear, South Devon, sends flowers of this handsome and fragrant Honeysuckle with the following note: "I am sending you some flowers of Lonicera hildebrandiana which is blooming profusely with me. This, the giant among the Honeysuckles, is a native of Burmah, and must, therefore, over the greater portion of this country be considered a greenhouse plant. In the South-West, however, it has been found to succeed well on an open wall. Some years ago, the late Rev. Henry Ewbank, in writing of it, said that, having regard to its habitat, it required to be exposed to every beam of the sun from its rising to its setting. He flowered it well in his garden at Ryde, and was the first to bloom it in the open in England. The only wall at my disposal faced north-west, and receives only about three hours of sunshine in the day, so in planting this Lonicera and remembering Mr. Ewbank's remark I had little hope of flowering it. However, after it had been in position for about eighteen months, it produced a single flower-cluster, and the succeeding year bore over twenty, while this season fully a hundred bloom-clusters have been perfected, a proof that it will flower in a position where it gets but little sunshine. The flowers are very fine, being fully 6 inches in length, while the open mouth is 5 inches across. At first they are pale yellowish white, but they soon deepen in colour and eventually become rich orange, while they have the additional recommendation of being deliciously scented. In the warmer localities it may well be grown on a south wall, for, although the plant on the north-west wall has flowered satisfactorily, a sunnier site is doubtless to be preferred. In the colder districts it is valuable for the greenhouse, where its perfumed flower-clusters should render it an acquisition. Its foliage is large and handsome, and adds to the attractions of this desirable plant. Some writers have asserted that it is 'more hardy than is generally supposed, even in inland districts'; but a few winters ago a plant in Messrs. Robert Veitch's nursery at Exeter, which was grown in an unheated house, was so badly cut that it lost every leaf and had to be cut back hard the following spring. Plants in a noted garden near Penzance were badly cut four winters ago and lost every leaf, though I believe they subsequently recovered. Three summers ago I revisited the late Rev. Henry Ewbank's garden at Ryde and found that Lonicera hildebrandiana had greatly decreased in size since I had last seen it, though it was showing healthy growth."

LEONOTIS LEONURUS.

Mr. Fitzherbert also sends a spike of this interesting plant with the following note: "I am sending you the first flower-spike of the Lion's Tail (Leonotis Leonurus). It is from a bush growing against a south-west wall, and in a short time it will be a glorious sight, as there are over sixty flowering stems, and when the blossoms are all expanded the shrub will be a blaze of orange scarlet. The plant in question is 6 feet in height and the same across. It was only planted in its present site last November, having before been grown in the open garden with no wall near it. Here, in the severe winter experienced four years ago, it was very badly injured—in fact, so much so that it was thought to be dead; but about June it began to put out fresh shoots and recovered, though it did not bloom until November. However, the autumn being very mild and open, it perfected its flower-spikes well. The tubular flowers, 2 inches in length, are produced in whorls at the axils of the leaves on the upper portions of the shoots, six whorls being sometimes carried on the same shoot, as in the specimen forwarded. The colour of the blooms is rich orange scarlet, and they open pure scarlet. They are clothed with short hairs on the exterior. On this plant there will probably be over 200 whorls open in a fortnight. Some of the whorls measure as much as 14 inches in circumference and carry over 100 flowers. The leaves are 4½ inches in length and three-quarters of an inch in breadth, light green in colour and deeply veined. The Leonotis was introduced into this country in 1712, but was subsequently lost to cultivation and was reintroduced about twenty years ago. It is but little known, though it is to be met with in a few gardens in the South-West, where it usually flowers in September and October, but, being a native of the Cape of Good Hope, it will not succeed in the open air under less-favoured climatic conditions than are experienced in the moist atmosphere of the shores along which the slow tide of the warm Gulf Stream flows. Some writers have asserted that it is here of herbaceous growth, but in Devon and Cornwall it forms a hard-wooded shrub. Many years ago a variegated form of this species was grown, and there is said to be a white-flowered

variety of it in South Africa. L. intermedia, another species, occurs from Algoa Bay to Natal, and at Constantinople, where it is largely grown, it is known as the Minaret Flower. It is distinguished from L. Leonurus by its greater height, by the very long joints of the stem, by the cordate base of the leaves, by the velvety down of the calyx, and by the lighter pale orange colour of the flowers. L. nepetæfolia is a coarse annual that has been in cultivation. The genus includes twelve species, all natives of South Africa, but the majority of them are not very ornamental."

DELPHINIUMS FROM SCOTLAND.

Dr. McWatt of Morelands, Duns, N.B., sends us flowers of seedling Delphiniums, which for the time of year are exceedingly good. In addition to rich and varying shades of blue, the spikes are large, and many of them branching freely. Dr. McWatt also encloses some Polyanthus flowers of more than usual merit.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Making a small rockery (*L. O. F.*).—The construction of a rockery or rock garden, large or small, has most frequently to submit to circumstances, and set in a small corner would be better without any prearranged plan. In the first place, a mound of earth is required—this need not be more than 1 foot or 18 inches high—and some stones half buried in the sloping sides. The object in view is to grow plants and show them to advantage, the simpler ways usually giving the best results. The late Mr. Meyer's book on rock garden-making, which may be obtained of the Publisher from this office, price 5s. 5d., post free, tells all that is needful. The book also contains lists of plants for the purpose.

Asters in New Zealand diseased (*W. J. H., Wellington, New Zealand*).—The disease which has killed our Asters often gives a great deal of trouble in this country. It is known by the different names of black leg, stem rot and the Aster disease. It is of fungoid origin, the spores of the fungus lying dormant in the soil during winter, and with the return of spring they become active and attack the plants, as a rule just above the surface of the soil. All diseased plants should be gathered up and burnt, and the ground given a liberal dressing of quicklime, which must be dug in. Then in spring sprinkle the surface of the soil with sulphate of iron powder, using about half an ounce to the square yard, and if this is done you will probably not be troubled with the disease again. Dead plants thrown on the rubbish-heap are a fruitful source of infection. 2. It is, of course, impossible for us to even suggest a reason why your plants of Cyclamen did not flower, as the conditions with you are so different from those experienced in this country. Even had we experience of plant cultivation in New Zealand, you do not give us any idea how the plants are grown and the treatment they have received. 3. Spent Hops would certainly not be suitable for mixing with potting compost, hence it will be necessary to use some other substance. Cocoanut fibre refuse is a very good material to take the place of leaf-mould, while even better is granulated peat, an Irish product. We do not know whether either of these can be obtained in New Zealand. Surely in some of the forests, where leaves have fallen for ages, leaf-mould in some form or other must be obtainable. In this country peat is often used instead, and if you can get a supply of this it will take the place of leaf-mould. For potting purposes peat from upland regions is much preferable to that obtained from boggy spots.

TREES AND SHRUBS.

Pruning Rhododendrons (*M.B.W.*).—The correct time to prune Rhododendrons is as soon as the flowers have fallen, that is if the bushes simply require shaping or slightly reducing in size. Should you, however, wish to prune them severely and cut them back into the old wood, it is better to sacrifice the flowers and do the pruning about the middle of April. If you do the pruning at that time the pruned branches do not bear a disfigured look for a very long period, as new shoots appear almost at once. By giving a severe pruning in autumn, however, the bushes look bad until the return of the growing season. As a rule, slight pruning is all that Rhododendrons require, and this should be done by cutting a certain number of the branches clean out, not giving a general cutting back. A regular clipping back induces a dense, formal appearance, which ought by no means to be encouraged, unless it is in the case of the common R. ponticum when it is used for a covering for a bank, and has of necessity to be kept low. When pruning operations are in progress all wounds ought to be dressed with coal tar.

Araucaria in bad health (*Subscriber*).—When a specimen of Araucaria imbricata has fallen into such a bad state as yours, it is practically impossible to revive it. The branches that are dead or dying cannot be renewed, and, consequently, should the specimen be suffering from lack of nourishment and this is so far made good as to restore the upper part of the tree, the lower portion will always remain bare. The top-dressing of manure given by you last year should have done some good, providing that the want of a stimulus caused the trouble. As the matter now stands we cannot advise you better than to do away with the old specimen, and if you still desire an Araucaria put a young thriving plant in its place. At the same time, there are many beautiful trees not given to shedding their lower branches as does the Araucaria. Though handsome specimens of this last may be met with in many parts, there are, on the other hand, districts where it becomes gaunt and bare, however it may be treated. In dry soils, or where cut off at all from light, air and sunshine, as well as if the roots get into an uncongenial subsoil, the Araucaria loses its lowermost branches. On the western slopes of the Chilian Andes, its native home, the rainfall is far more copious than in England, and, consequently, in this country it as a rule thrives best where the fall of rain is greatest and the soil porous enough to carry off the water freely, as stagnant moisture is very harmful.

FRUIT GARDEN.

Earwigs destroying fruits of Peaches and Nectarines (*Berks*).—At that stage of the fruit's growth no poisonous liquid dressing can be applied to the trees strong enough to drive away the earwigs without rendering the fruit quite useless for dessert. There is no more effective way of trapping them than the old way you have adopted, namely, using pieces of Bean-stalks about 6 inches long, placing them among the branches near the fruit, and emptying them every morning early into boiling water so that they may be destroyed. Pots partly filled with hay, suspended to the branches of the tree, make good traps. The success of this method depends entirely on the number of traps set and on perseverance in looking keenly after them in the way of frequent emptying and resetting.

Apple trees cankered (*Scott*).—Canker in fruit trees is caused by the fungus Nectria ditissima, which gains an entrance into wounds made by hail, insects (especially American blight) and so on. Care should be taken to keep the trees free from insect pests, and small cankered branches should be altogether removed. If large branches are cankered, the cankered spot should be cut out and the wound painted with Stockholm tar. All wounds of any size made in pruning, &c., should be protected by painting with Stockholm tar. The brown spots on the Apples are probably due to the attack of the fungus Fusicladium dentriticum, but you should always send specimens when referring to diseases such as this. The fungus attacks the wood as well as the leaves and fruit, and often causes the death of young twigs. All dead and dying branches should be removed and the trees sprayed with Bordeaux mixture at half the strength used for spraying Potatoes just before the buds burst, again after the petals fall, and a third time after an interval of three or four weeks.

Peach leaves for inspection (*Germany*).—This is one of the worst cases of attack by scale insects we have seen on Peaches. Fumigate at once, and again, if necessary, with XL or Abol or some similar fumigator. No doubt the blackening you speak of on the fruit is due to the growth of a fungus on the honey-dew produced by, and the excreta of, the insects.

A Peach-house 18 feet by 15 feet (*T.*).—We presume that the two trees mentioned fill the house and that our correspondent wishes to know how many fruits each of his trees should be allowed to grow to maturity. This will depend on the size and vigour of the trees. A safe guide in this matter is to allow rather more than one fruit to every square foot of space the trees may cover.

Peach Barrington dropping its fruits when on the point of ripeness (*J. P., Oxon*).—It is very seldom we hear of this variety casting its fruit. On examination we found the stone had split, but was not diseased, as is generally the case with split stones. We think this premature dropping of the fruit must be due to this defect in the stone. Sometimes if trees in this condition are subjected to heavy rain or an over-copious watering, this result will follow. To prevent a recurrence next year artificial fertilisation should be resorted to while the tree is in bloom, using the pollen from another variety if possible.

KITCHEN GARDEN.

How to grow Seakale (*F. E. E.*).—Seakale is propagated by root cuttings planted towards the end of March in rows 15 inches apart, the cuttings in the row being placed 10 inches apart. The ground in which it is to be planted should be trenched the autumn or winter before, a liberal quantity of rotten manure being worked into the soil while trenching is going on—four good barrowloads to the rod. The whole subject of the growth of this vegetable will receive special attention before planting-time arrives. It is too large to press into the compass of a reply. In the meantime you can prepare the land when it is vacant at leisure. The subject will not be lost sight of.

Tomatoes unsatisfactory (*Anxious*).—The plants have been attacked by red spider and aphis, and fumigation appears to be called for. We think, however, that the greater part of the injury to the foliage shown by the specimens sent must be due to fumes given off from the manure used as a top-dressing. The leaves appear to have been scalded.

Celery diseased (*A. B.*).—The Celery is attacked by the fungus Phyllosticta petroselini apii. This fungus has recently proved very destructive to Celery plants, and it is advisable to carefully clear away and burn all refuse from attacked plants, and to grow the Celery and Celeriac next year as far away from the place where it was grown this year as possible. Seed should not, of course, be saved from diseased plants. Those that are worst should be destroyed by fire, and the remainder sprayed with Bordeaux mixture.

Peas and flower to name (*G. J. P.*).—The flower is Linaria bipartita. We are sorry we cannot undertake to name varieties of Peas. The varietal difference in the many hundreds of varieties in commerce being in many cases so infinitesimally small, and so many being synonymous (only under different names), it is quite impossible for anyone to name them with any degree of exactitude. Yours, although not large-podded varieties, are well filled, and, we should say, are economical sorts to grow, as there is very little waste in the pods.

Diseased Potato leafage (*H. R.*).—The Potato leaf sent shows a very uncommon form of disease which differs materially from that generally known as the Potato disease, Phytophthora infestans. The disease, of which a sample is sent, is more closely allied to rust, or what is known as leaf-curl, which is also a fungus, but is invariably due to severe weakening of the stamina of the crop affected, because the tubers used for sets have been grown on the same soil previously. We advise you to carefully pick off or pull all the haulm that is thus affected and burn it. Do not save any of the tubers of that stock to plant again, but obtain fresh seed next spring from a distance. Also, do not plant on the same soil on which these diseased tubers are now growing, but follow with Cabbage or some very diverse crop. Use lime freely where you grow Potatoes next year; but the chief object is to get entirely fresh seed from elsewhere.

Question about Salsify (*G. D.*).—We are obliged for the roots of Salsify sent and your further information. The roots are very good samples for the season. There is no disease, and your culture has been quite correct. We do not think that the subsoil being of a chalky nature can have in any way caused the damage. After a close inspection of the foliage we find it badly infested with mildew, so that we advise you to spray as advised earlier if the pest still spreads. You will soon arrest its progress, and the plants being strong will perfect good roots for winter use.

Small oval Turnip (*J. P.*). — The varieties of Turnips in commerce are so numerous, and a great number of them are so much alike, that it is most difficult to say what any variety may be from a description given of it. The nearest we can think of are Carter's Swan's Egg and Sutton's White Gem. The question of culture has much to do with the fine ivory-like appearance of the skin of a Turnip, as it undoubtedly has with its delicacy of flavour. A sample grown rapidly in rich, moist soil is far and away better in every respect than is that grown indifferently in poor and not overmoist soil.

Asparagus-beds and agricultural salt (*Regular Reader*).—The reason that salt is supposed to be a specially good manure to apply to Asparagus is because the plant is a native of the seashore, being found growing wild on sandbanks near the sea. The best time to apply salt to Asparagus-beds is in spring, just as the grass is beginning to grow, say, the last week in March in the South and the first week in April in the North. The proper quantity to use is two ordinary handfuls to the square yard, scattering it evenly over the bed. It should never be applied as brine in a liquid state. We would not advise you to apply salt to any other vegetable crop.

Cucumbers and their treatment (*Regular Reader*). It is the same with the Cucumbers as with the Marrows. If they are cut regularly as soon as they are large enough for use or market, and before seeds are formed, then "Let them all come" excepting any which may be deformed, feeding the plants generously and giving them plenty of heat. When you want perfect specimens for exhibition, then you must thin out to, say, four or five on a plant for the time the fruit you want is growing. Better specimens are grown when a glass tube is provided to place them in. They come much straighter, and the bloom on the fruit and the flower at its apex are better preserved in this way.

Onions diseased (*Lieutenant-Colonel Dent*). — The grubs attacking the bulbs are those of the Onion fly (Phorbia cepetorum). This pest, of which there are several broods during the year, is often very destructive to Onions. The grubs become pupæ in the ground, and hatch out into flies about the size of the common house-fly, which lay their eggs in the earth near the plants, and the eggs soon hatch into grubs. It is best not to grow Onions on the same ground for a year when the previous crop has been infested, and they may be to some extent protected by dusting sand, with which a little paraffin has been mixed, along the rows while the plants are growing, beginning in April. Kainit may also be sprinkled on the surface and hoed in lightly with advantage. Care should be taken to remove and burn all the infected bulbs.

Melons and Cucumbers gone wrong (*T. F. H.*). The Melon plant is badly cankered, consequent probably upon being grown in too rich a material, and also through the air of the house being kept too moist. If the stems are not too badly decayed you may patch them up by dusting Roman cement thickly over their stems when they are wet. This will then get hard, and often help crippled plants to finish a crop. If too far gone there is nothing for it but to pull them up. The Cucumber foliage sent shows unmistakable signs of an attack of the Cucumber spot fungus. The disease cannot be cured, but by keeping the air of the house or frame fairly dry and warm and not over-watering the plants it is possible to keep them in such health as will enable them to swell and finish their first crop of fruit.

MISCELLANEOUS.

Plants for identification (*G. M. B.*).—The specimen sent for determination is the Caper Spurge (Euphorbia Lathyris). We have not heard of the fruits being used for pickling, and think they would be dangerous subjects to use for the purpose, as the whole Spurge family is characterised by its poisonous qualities.

Long thread-worm in a scent bottle (*No Letter*).—The long worm about the thickness and appearance of a piece of white cotton thread is not in any way injurious to plants or to human beings. It passes part of its life in the intestines of an insect, probably, in this case, one of the ground beetles.

White flies in greenhouse (*Miss F. North*).—You have no other available means of clearing your greenhouse of the white fly except by fumigation. This may easily be accomplished by calculating the cubic area of the structure and by using XL All Fumigating Compound according to the instructions on the bottle. It will probably be necessary to fumigate the house several times before it is thoroughly clear.

Destroying ants (*J. M. P. M.*).—To destroy ants the following methods are recommended by Mr. F. Pilkington Sargent in his work on "Horticultural Preparations": "A solution of Phenol containing 1·25 per cent. will repel if not kill them." "A crude and dangerous remedy may be made as follows: Liquid Arsenical Ant Destroyer.—Arsenious oxide, 5·00; sugar, 40·00; liquid glucose, 20·00; water to 100·00. Mix the arsenious oxide in very fine powder with the other ingredients." "You may also try injecting bisulphide of carbon into the lawn about where the ants are." Boiling water poured into the nests is also efficacious. Messrs. Alex. Cross and Sons, Limited, 19, Hope Street, Glasgow, sell a special preparation for destroying ants which we have found effective.

Names of plants.—*W. Hardy.*—Nepeta Glechoma and Begonia manicata. The Geranium cannot be named without flowers.——*A. C. H.*—Loiseleuria procumbens. ——*J. E.*—Seedling forms of Veronica speciosa.——*M. G.*—Statice Limonium (Sea Lavender).—— *D. Mc.*—1, Eupatorium ageratoides; 2, Solidago latifolia; 3, S. lanceolata; 4, S. Virgaurea.—— *Helmsdale.*—Potentilla fruticosa and Juniperus chinensis.——*T. E. Woodhouse.*—1, Verbena venosa: 2, Tritonia crocosmæflora (?); 3, Rudbeckia speciosa; 4, Clematis Viticella var.; 5, Phlox (garden seedling); 6, Aster Thomsonii.——*Mrs. J. Keith.*—Acæna microphylla.

Names of fruit.—*J. M.*—1, King Harry; 2, Tower of Glamis; Pear Williams's Bon Chrétien.——*W. Hardy.*—Apples: 1, Lord Grosvenor; 2, Lord Derby; 3, Nelson's Codlin; 4, Lamb Abbey Pearmain; 5, New Hawthornden; 6, Rosemary Russet; 7, Mank's Codlin; 8, Beauty of Kent; 9, Lord Burghley; 10, Adam's Pearmain. Pears: 1, Comte de Lamy: 2, Caillot Rosat; 3, Josephine de Malines; 4, Beurré Diel; 5, Old Bergamotte. See also "Names of Plants."——*A. James.*—1, Duchess of Gloucester; 2, Fearn's Pippin; 3, Wyken Pippin; 4, Cellini Pippin; 5, Warner's King; 6, Cox's Orange Pippin; 7, Cox's Pomona; 8, Lord Derby; 9, Emperor Alexander; 10, King of the Pippins; 11, Ribston Pippin.

SOCIETIES.

NATIONAL DAHLIA SOCIETY.

THE second exhibition of the above society was held in the Royal Botanic Gardens, Regent's Park, on Tuesday and Wednesday, September 20 and 21. The weather was fine and bright, and a goodly number of visitors attended the show. In addition to the exhibition there was a good display of fruit preserved in pure water only, without sugar or any chemical preservative, which attracted a good deal of attention owing to the simplicity of the process. The Giant Water Lily (Victoria regia) was in splendid condition, which, together with other tropical plants and the general beauties of the gardens, well repaid all who availed themselves of this opportunity to visit the show.

An interesting function which followed the luncheon on the first day of the show was the presentation of cups and medals which were offered by the society both at the Crystal Palace and the present exhibition, Mr. Edward Mawley, V.M.H., president of the society, being in the chair. Great credit is due to the hard-working hon. secretary, Mr. E. F. Hawes, for the excellent arrangements that were made.

NURSERYMEN.

In the class for three vases of Cactus Dahlias, distinct varieties, put into commerce for the first time during 1908-9 and shown in sixes with hardy foliage, Mr. John Walker of Thame obtained first prize with a splendid arrangement, showing Echo, Mercia and Mrs. A. Dyer. He was closely followed by M. V. Seale, Sevenoaks, and Messrs. Keynes, Williams and Co., Salisbury, in order of merit.

For twelve varieties of Cactus Dahlias, shown in bunches of six blooms, Messrs. J. Stredwick and Sons, St. Leonards, secured the leading award, staging some good flowers of Wm. Marshall, Indomitable, Red Admiral, Dr. Roy Appleton, The Earl, Mrs. Douglas Fleming, H. H. Thomas, C. E. Wilkins, Golden Eagle, Satisfaction, H. L. Brousson and Jupiter. Messrs. J. Cheal and Sons, Crawley, came second with a nice clean set; and Messrs. J. Burrell and Co., Cambridge, were third.

In the class for twenty-four blooms of Cactus Dahlias, distinct, shown on boards, Messrs. J. Stredwick and Son again led with some well-finished flowers, and were followed by Messrs. Keynes, Williams and Co. and Messrs. J. Burrell and Co. as second and third respectively.

For three vases of Cactus Dahlias, containing nine blooms each, arranged with any kind of foliage, Mr. John Walker took the first place with vases of mixed varieties, making quite a splendid display, Mr. Charles Turner, Slough, being second, and M. V. Seale third.

Pompon Cactus Dahlias were represented by a class for twelve bunches in not fewer than six varieties and shown with their own foliage, Messrs. J. Burrell and Co. gaining first honours with a splendid distinct set of twelve varieties—Coronation, Titus, Mrs. Marshall, Alwyn, Nora, Minima, Lena, Martha, Argus, Nain, Cheerful and Sweet. Messrs. J. Cheal and Sons were second, and M. V. Seale third.

Show and fancy Dahlias, twenty-four blooms, distinct, on boards, were well staged by Mr. John Walker, who had some fine specimens of Wm. Powell, James Cocker, Flo Tranter, Standard, D. Cornish, Portia, Mrs. Gladstone and Duchess of Albany. Mr. S. Mortimer of Farnham was second, and Messrs. Keynes, Williams and Co. third.

For twelve blooms, show and fancy, distinct, Messrs. J. Cheal and Sons came first, Mr. S. H. Cooper second, and M. V. Seale third.

In the class for six blooms of any one variety, show or fancy seedling, Mr. S. Mortimer secured first prize with a new fancy, William Pemberton.

Pompon Dahlias, twelve varieties, distinct, shown in bunches of ten blooms, were quite a feature, and the first-prize stand from Mr. Charles Turner was much admired, the varieties being Bacchus, Ideal, Phyllis, Adelaide, Marietta, Nerissa, Mignon, Ganymede, Queen of Whites, Darkest of All, Mary and Cyril. Messrs. J. Burrell and Co. came second, and Messrs. J. Cheal and Sons third.

For twelve varieties of single Dahlias in bunches of s blooms, the leading honours, which included a gold D Memorial Medal, were secured by Messrs. J. Cheal a Sons, who showed Leslie Seale, Owen Thomas, Strombo Cardinal, Flora, Miss Morland, Miss Roberts, Lady Bou ful, Rosemary Bridge, Snowdrop, Kitty and Mrs. Joyn Hicks in excellent form. M. V. Seale and Mr. John Wal came next in order of merit.

Pæony-flowered varieties, shown in vases, six varieti six blooms each, with any suitable hardy foliage, we well set up by Mr. Charles Turner, who also secured th leading award for giant decorative Dahlias shown in similar manner.

AMATEURS.

For show and fancy Dahlias, shown on boards, twel blooms, distinct, Mr. S. H. Cooper, Chippenham, secur first place, with Mr. A. Robbins, Keynsham, second.

For a similar class of six varieties, distinct, the fi prize was obtained by Mr. Charles Luckin, Apsley, follow by Mr. A. P. Ironsides, Chippenham, and the Rev. L. Chalmers-Hunt, Hitchin, in order of merit.

The gold Dean Memorial Medal was secured in the cla for six varieties of single Dahlias, staged in bunches six blooms, by Mr. Edward Mawley, president of th society. The Rev. Arthur Bridge, Worth Rectory, wa second, and the Rev. S. S. Pearce, Combe, Woodstoc Oxon, third.

For a vase of single Dahlias, arranged with any foliag Mr. E. Mawley was again first, the Rev. A. Bridge second and Mr. W. C. Pagram, Weybridge, third.

In the principal class for Cactus Dahlias, which wer staged in bunches of three blooms, nine varieties, distinc the Rev. A. Bridge took leading honours with a clean se including Harold Peerman, Satisfaction, Iolanthe, W Marshall, H. H. Thomas, C. E. Wilkins, Red Admira Snowdon and Rev. T. W. Jamieson. Mr. F. Grinsted Battle was a very close second, followed by Mr. W. Peters, gardener to Sir John Kennedy, K.C.B., Baldslow third. The competition in this class was very keen other notable exhibits being set up by Mr. F. W. Fellowe and Mr. Charles Luckin.

For the best vase of any variety, white or pink Cactu Dahlia, the Rev. Arthur Bridge again secured the leadin award, followed by Mr. Charles Luckin and Mr. E. Barton, Greenwich, in order of merit.

In the class for six varieties of Cactus Dahlias, show in bunches of threes, Mr. E. Mawley obtained first, the Rev A. Bridge second, and Mr. G. Stevenson, Chadwort Cottage, Esher, third.

For four varieties, Cactus, three blooms of each, shown o boards, Mr. F. H. Curry, Osborne Road, Palmer's Gree obtained first place, followed by Mr. Charles Luckin an Mr. R. C. Willis, Palmer's Green, in order of merit.

Twelve varieties, Cactus, distinct, were well staged b Mr. John Hicks of Thornton Heath. Mr. G. Davidso was second, and the Rev. A. Bridge third.

For Pompon Dahlias, six varieties, shown in bunche of six blooms, Mr. G. Davidson, Thornton Heath, secure first, Mr. A. P. Ironsides second, and Mr. S. H. Coope third.

BOTTLED FRUIT COMPETITION.

In the classes for bottled fruit, for which prizes wer offered by the Anglo-Belge Glass Association, Limited competition was keen, the first prize for twelve bottles various fruits being awarded to Mrs. V. Banks, Park Stree Grosvenor Square; second, Mrs. L. Birkinshaw, Botham sall, Retford; third, Mrs. E. Toothill, Branton, Doncaster fourth, Mrs. H. Helliwell, South Anston, Sheffield.

For six bottles of various fruits, Mrs. E. J. Beckett Aldenham House Gardens, Elstree, secured first prize Mrs. V. Banks second, Mrs. L. Birkinshaw third, an Mrs. A. Pulham, Elsenham, fourth.

For three bottles of fruit, various, Mrs. V. Banks, Mrs E. Toothill, Mrs. L. Birkinshaw and Mrs. E. J. Becket secured awards in their respective order of merit.

NON-COMPETITIVE EXHIBITS.

Some excellent groups of Dahlias, hardy flowers an fruits were staged in this section, and the following medal were awarded: Large gold medals to Hobbies, Limited for Dahlias and Roses; Messrs. T. S. Ware ('02), Limited for Dahlias; Bakers', Wolverhampton, for Dahlias; an Mr. J. T. West, Brentwood, for Dahlias. Gold medals t Mr. J. E. Knight, Wolverhampton, for Dahlias; an Messrs. S. Spooner and Sons, Hounslow, for hardy fruit Silver-gilt medals to Mr. Charles Turner, Slough, fo Pæony-flowered Dahlias; and Messrs. Whitelegg an Page for Dahlias. Silver medal to Mr. J. B. Riding fo Collarette Dahlias.

First-class certificates of merit were awarded to:

Cactus Dahlia American (Keynes, Williams and Co.), good bold flower, white ground, splashed and stripe crimson.

Cactus Dahlia Mrs. Douglas Fleming (Stredwick), white flower having a greenish centre.

Cactus Dahlia H. L. Brousson (Stredwick), a delicat shade of rosy mauve with a lighter centre.

Garden Cactus Dahlia White Ensign (Stredwick), pure white flower borne well above the foliage.

Garden Cactus Dahlia Flagstaff (Stredwick), a bol flower, with stiff stems, of rosy salmon colour.

Garden Cactus Dahlia Mary Purrier (J. T. West), a effective flower of bright crimson colour and good decora tive habit.

Fancy Dahlia William Pemberton (Mortimer), a goo flower with a yellowish ground splashed and stripe crimson.

Show Dahlia Model (Mortimer), a medium-sized flowe having a white base and tipped rosy purple.

Pompon Dahlia Pink Beauty (J. Cheal and Sons), charming flower of a pleasing shade of pale pink.

THE GARDEN.

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CONTENTS.

THE QUEEN OF FLOWERS 493
The National Vegetable Society 493
NOTES OF THE WEEK
Forthcoming events 494
CORRESPONDENCE
Soil productiveness 494
A good bunch of Black Hamburgh Grapes 495
Arctotis grandiflora 495
Planting north and south 495
Fungus-proof Hollyhocks 495
GARDENING OF THE WEEK
For the South and South Midlands.. 495
For the North and North Midlands.. 495
FLOWER GARDEN
Garden Crocuses .. 496
Sweet Pea chat .. 496
FRUIT GARDEN
The Apricot and its culture 496
Apple Round Winter Nonsuch 497
Rose Danae 497
Some random Rose notes from America 497
Rose hedges 498
New Roses of the year.. 499
An extraordinary standard Rose .. 499
Various types of rambling Roses 499
A plea for old friends 500
COLOURED PLATE
Rose Juliet 500
Rose Blush Rambler.. 501
A chat about Roses .. 501
GARDENING FOR BEGINNERS
Garden work week by week 502
Some common enemies of the Rose 502
THE TOWN GARDEN.. 503
Winter Roses for market and home use.. 504
New plants.. 505
ANSWERS TO CORRESPONDENTS
Flower garden .. 505
Rose garden 505
Trees and shrubs .. 506
Fruit garden 506
Miscellaneous.. .. 507
SOCIETIES 507

ILLUSTRATIONS.

A new yellow multiflora hybrid Rose: Danae 497
The Rev. F. Page-Roberts 498
Rose Innocente Pirola in a Bushey garden 499
Rose Dorothy Perkins at Kew 500
Rose Juliet .. .. Coloured plate
A pillar clothed with Rose Blush Rambler 501
Some common enemies of the Rose 502, 503
First and second prize exhibits of vegetables 506
First-prize exhibit of rare and little-known vegetables 507

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE QUEEN OF FLOWERS.

FOLLOWING our usual custom at the commencement of the planting season, we are devoting this issue chiefly to the Rose, which has long held, by general consent, the proud position of Queen of Flowers. There is something about the fragrance and even contour of a well-grown Rose that appeals to the heart of every member of the English-speaking race, and the cultivation of the flower has long been regarded as one of the most fascinating pursuits in small and large gardens alike. As in every other branch of horticulture, wonderful improvements have been made during recent years in the Rose, improvements which have been so well described by writers in our pages that it is not necessary to refer to them in detail now. The advent of the Hybrid Teas opened up a new era in Rose culture, and our gardens are now resplendent with blooms from early June until well into October, thanks mainly to a race wherein we get the hardiness of a Hybrid Perpetual added to the prodigal flowering capacity of our best Teas. Then, again, the Japanese or wichuraiana Roses have played a most important part in the developments that have been brought about with such rapidity. It is true that before the possibilities of these were realised we had the old multifloras, which even now must not be despised; but the most ardent rosarian of the old school cannot but admit that there is a grace and beauty in such sorts as Dorothy Perkins that was missing in the older types. Nor must we forget the pernetiana hybrids, among which we get such glorious flowers as that shown in the coloured plate presented with this issue.

Unfortunately, modern developments have been attended with a few evils, the chief of which, we think, lies in fragrance being sacrificed for form and substance. Many of the otherwise excellent new varieties that we see gaining high honours to-day are practically devoid of scent, which, after all, is the very life of a Rose. In Frau Karl Druschki, for instance, we have a Rose that may well be likened to a beautiful piece of statuary; correct pose and outline, with purity of substance, are there, but the life of the flower as exemplified by fragrance is missing. When we get a scented Frau Karl Druschki we shall have a perfect white Rose.

Mention of the improvement of the Rose brings at once to our mind the excellent work that has been and is being done by the National Rose Society, a society that can boast the largest membership of any special floricultural society in this country. Not only have the committee brought before the public the best varieties of the Rose by holding three exhibitions annually, but literature of a most useful and interesting character, dealing with various phases of culture and giving selections of varieties for different purposes, as well as a list of pests of the Rose and the best methods of exterminating them, has been prepared and distributed among the members. All this and much more has been done in a quiet, unobtrusive manner, and has helped greatly to advance the cultivation of the Rose. On page 498 we have much pleasure in publishing a portrait of the Rev. F. Page-Roberts, the genial president of the society for the current year. He has done yeoman service in the interests of the Queen of Flowers.

THE NATIONAL VEGETABLE SOCIETY.

IN the spring of last year we published a letter signed "A Lover of Good Vegetables," the writer of which made out a good case for the formation of a National Vegetable Society. Happily, this caught the eye of that enthusiastic horticulturist, Mr. Alex. Dean, who promptly took the matter up, and in the course of a few weeks such a society was an accomplished fact. As with every other newly formed society, criticisms came fast and furious, but the infant withstood the shock well, and during the present summer useful trials of Cabbages, Onions and Peas have been conducted in various parts of the country under the direction of the committee.

When it was suggested early this year that an exhibition of vegetables should be held in the autumn, critics were even more busy, and gloomy indeed were the predictions that the committee had freely placed at their disposal. Happily, these, as predictions so often do, proved false, and thanks to the generous support afforded by the leading seed firms in the country, and amateur and professional growers, the exhibition held on Wednesday of last week was a pronounced success. Indeed, it exceeded the expectations of even the most sanguine members of the committee, and exploded, let us hope beyond reconstruction, the old and often

expressed idea that an exhibition of vegetables must of necessity be dull and uninteresting.

The culture of vegetables in this country has too long been under a cloud, and too much attention has in the past been devoted to size at the expense of quality; indeed, even now at the best shops in London and other big cities, as well as in smaller towns and even in country districts, it is almost impossible to obtain vegetables of anything like the quality rightly demanded from the private gardener by his employer; and the variety, too, though much larger than it was a decade ago, is still in many kinds badly in need of extension. Happily, the quality of most of the exhibits staged at the exhibition last week was excellent, thus proving that the private grower and our leading seed firms are fully alive to the necessity of putting quality before size.

We believe that the National Vegetable Society has already done, and is capable of doing, a vast amount of good work, a belief that is shared by Mr. George Monro, who presided at the judges' luncheon held on the day of the show. Considering the important position Mr. Monro holds in the vegetable and fruit markets at Covent Garden, his opinion cannot lightly be disregarded by those who have the best interests of horticulture in all its branches at heart. The time may come when we as a nation will have to rely more on the products of our own soil than is at present necessary, and the importance of a good supply of high-class vegetables under such circumstances can scarcely be overestimated. To induce the public to grow more and better vegetables, and to consume them in larger quantities, is one of the chief aims of the society, and, if this can be fully accomplished, something at least will have been done towards solving some of the social problems that confront us to-day.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 11.—Royal Horticultural Society. Exhibition of Flowers, Fruits, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. B. T. P. Barker, M.A., on "Cider and Perry Fruits." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

October 13.—Royal Horticultural Society. Autumn Show of British-grown Fruits, 1 p.m. to 6 p.m. Royal Horticultural Hall, Vincent Square, Westminster (two days).

Vegetables for a London hospital.—At the close of the recent exhibition of the National Vegetable Society, Mr. A. Dean, the chairman, was enabled, through the generosity of many exhibitors, whose kindness he wishes to acknowledge, to send to St. Thomas's Hospital a large quantity of vegetables, which the hospital authorities duly fetched away and have since acknowledged by letter. This is an act which might be largely imitated, as few things seem to be more acceptable to hospital patients than are the various products of the garden.

A national Rose garden.—I have seen it advocated that the Crystal Palace should be secured by the nation as a memorial to our late beloved King. The idea is an excellent one, which I trust will be taken up heartily. I should like to make an additional suggestion—that a national Rose garden be established in these beautiful grounds, and I am sure the suggestion would be heartily endorsed by Her Most Gracious Majesty Queen Alexandra, who is patroness of the National Rose Society of England, and is a keen lover of our national flower. Although as a nation we plant Roses most extensively, yet we are far from demonstrating to the world that the Rose is our national flower, and I maintain if such a garden could be adopted and planned on the most up-to-date lines, it would be not only educational, but also a great delight to the teeming millions of toilers who know not what can be accomplished with the Rose as a decorative plant for the garden, and it would serve as a reference by the many ardent rosarians of the land who cannot possibly grow the almost countless numbers of varieties now in commerce.—W. EASLEA, in the *Daily Chronicle*.

Perpetual Flowering Carnation Society The following British-raised seedlings of Perpetual-flowering Carnations have been registered by the society this year: Raised by Mr. C. F. Waters, Balcombe, Sussex: Albert E. Manders, orange, with red stripes; and Edith Waters, cerise. Raised by Mr. H. Burnett, Guernsey: Aurora, buff, marked with pink; Bridesmaid, deep salmon pink; Countess of March, salmon pink; Daphne, deep pink; Fortuna, yellow, inclined to buff; Marmion, cherry red, picoteed with white margin; Mikado, deep heliotrope at its best; Mrs. W. B. Clode, reddish salmon; Mrs. W. J. Hunter, cherry; Mrs. Tatton, white, overlaid with pink and margined white; Orpheus, bright yellow ground, marked with pink and white; R. F. Felton, pink; Snowball, white, inclined to blush in centre on openidg; Snow Queen, white; and Vulcan, buff, heavily marked scarlet. Raised by Messrs. Young and Co., Cheltenham: Duchess of Devonshire, bright crimson, after President colour; and Lady Henderson, bright flesh pink. Raised by Mr. A. Smith, Enfield Highway: Empire Day, pale salmon pink. Raised by Mr. W. H. Lancashire, Guernsey: Emperor, white ground, striped carmine. Raised by Mr. C. Engelmann, Saffron Walden: Harlequin, yellow ground, heavily striped red. Raised by Messrs. Stuart Low and Co., Bush Hill Park: Lady Dainty, white, overlaid purple; and Rival, coral red. Raised by J. Wormald, Esq., Harrogate: Pride of Wharfedale, mauve ground, marked pink; and The Socialist, scarlet. Raised by Mr. Hayward Mathias, Medstead: Etna, bright orange scarlet; Mascot, salmon pink; O.K., blood red; and Pink Pearl, rose. The society's winter show will be held in the Royal Horticultural Hall, London, on December 13. Schedules and particulars may be obtained from Mr. Hayward Mathias, Lucerne, Stubbington, Fareham, Hants.

Cryptogamic Society of Scotland.—The thirty-fifth annual conference of this society was held at Crieff, the meetings opening on the 27th ult. There was a good attendance of those interested in the Scottish fungi, and an interesting time was spent in visiting various forests, for which permission to visit had been generously given by the respective proprietors. The district is rich in fungus, and the visits to the woods were appreciated and were productive of good results. On the evening of the 28th ult. the business meeting was held under the chairmanship of Dr. A. W. Borthwick, Edinburgh. The office bearers for the year were elected as follows: President, Mr. R. B. Johnstone, the secretary of the Andersonian Institute, Glasgow; hon. secretary, Rev. Dr. Paul, Edinburgh; hon. treasurer, Mr. W. C. Crawford, Edinburgh. Members of council were also appointed. Next year's conference is to be held in September at Moffat, Dumfriesshire.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Altai Rose in autumn—The lovely single Rose generally known as Rosa altaica, but which is recognised to be a form of R. spinosissima has again been flowering this autumn after giving its usual wealth of lovely creamy flowers in early summer, and those who appreciate these single Roses should note the value of this fine plant. It differs much from R. spinosissima as represented by the Scotch or Burnet Rose, being much more vigorous and in having larger flowers and foliage. It makes a fine plant for a large rock garden, and is very handsome in the shrubbery or wild garden. It is seldom seen as a wall Rose, but a plant I have here on a 6-feet wall always commands admiration when in bloom in summer. Spread out on the wall it shows its beautiful flowers to even greater advantage than in bush form, and it is growing so well that it tops the wall by 1 foot or 2 feet, yet in bush form it is exceedingly ornamental, its habit being graceful. Its fine flowers are appreciated in autumn, and towards the end of September this plant on the wall gave a considerable number of flowers.—S. ARNOTT, *Dumfries*.

Selections of Roses. — It is a good idea of "West Worthing" that amateurs should compare notes in THE GARDEN as to the best Roses. It will bemore helpful than a visit to Rose shows, as the writers will give their experience as practical growers; it will be useful to purchasers of new varieties, as there will be no undue praising; and it will be interesting to compare experiences, failures and successes. Of the new Roses I have in my garden, Laurent Carle, a beautiful red Rose; Lohengrin, brilliant pink and of perfect shape, also a good grower; Mme. Segond Weber, another good pink and of perfect form; and, last but not least, both in size and substance, Mrs. A. M. Kirker, have all been fine, and helped me to win a first prize at our local show. Lady Ursula, Mrs. Harold Brocklebank, Mrs. G. W. Kershaw and M. Joseph Hill, it is only fair to say, have given some splendid blooms. Colonel R. S. Williamson I do not care for; in fact, I have too many of these washed-out whites, and want Roses of more distinctive colours. My last year's order was sent to the nursery as "vendor's selection," and though they were good plants, they were all light colours. To remedy this I am adding Avoca, Gloire de Chedane Guinoisseau, Chateau de Clos Vougeot and Marquis Litta. I do not care for the fading colour of His Majesty and the flat form of General Macarthur.—ALVASTON, *Derby*.

Soil productiveness.—Probably the very highest forms of soil production as shown in crops may be seen in good class gardens or, indeed, in cottage gardens or on allotments where the ground is deeply worked, and manuring, even if applied without any scientific knowledge, is yet freely adopted. All this result, and it is indeed wonderful result as compared with what is seen on shallow worked and poorly manured ground, is the product not in the least of what is called scientific instruction, but of practical experience, the product of the knowledge of generations of workers of the soil, gardeners especially. When, therefore, we read of certain remarkable developments seen in soil productiveness under scientific treatment, we are tempted to ask, first, whether these results

after all, excel what is now obtained by ordinary garden treatment and culture; secondly, whether the scientific treatment has such permanent productive results; and, further, if such good results follow, if the latter treatment can then be obtained at less cost than the former? It is all very well to write or lecture on these scientific discoveries, but somehow so far we do not find that they have yet played any important part in land culture, crop production, or in general gardening as conducted by practical men.—D. A.

A good bunch of Black Hamburgh Grapes.—Mr. Isaac Read Brundall has just cut a single bunch of Black Hamburgh Grapes scaling 5¼lb. Every berry except one were perfectly coloured. How many of your readers can beat this?—H. Perry.

Arctotis grandiflora.—Having read in your issue of the 17th ult., on page 459, the letter of your correspondent "E. L. B." on Arctotis grandiflora, may I inform him that the plant he got from Tresco is not A. grandiflora at all, but evidently A. arborescens. The true A. grandiflora, figured by Jacquin on Plate 378 of Vol. III. of "Hortus Schönbrunnensis," is a tall, upright-growing species with very large flowers of a bright orange colour, and is now, I am sorry to say, no longer in cultivation, nor are we likely to see it till some collector sends seeds of it from its home in Namaqualand, South Africa.—W. E. Gumbleton.

Planting north and south. — The general reason given for planting or sowing crops of all descriptions north and south is that when the sun is at its meridian it plays equally along each side of the rows, and thus the side which gets most of the shade during the morning secures its quota of light in the afternoon. In the paragraph on the "Fruit Garden" page 452, "A. A." advises planting Strawberries in rows north and south, because the sun's rays then reach both sides of the plants early and the fruits are soon dried. Evidently he had in his mind rows running east and west, seeing that rows running north and south have their west sides in shade until midday. But in relation to Strawberries it is rather an advantage to have rows of plants partially shading the soil beside them when the sun is at its hottest, and especially is fruit thus gathered on the north sides of the rows cooler. So far as relates to general crops, even in such a season as the passing one, in a couple of large blocks of school gardens the crops running east and west have been much better than those running north and south.—A. D.

Fungus-proof Hollyhocks. — When Mr. E. Robinson informs readers of The Garden that the Hollyhocks exhibited at Shrewsbury by Messrs. Webb and Brand were entirely free from disease, he necessarily makes the mouths of all Hollyhock growers water with desire to learn how the Saffron Walden plants were rendered so immune from such disease. I did not see the Hollyhocks referred to, presumably long spikes. But was there no fungus on the leaves near the ground? as it is on these in all cases the attack first presents itself. If Mr. Robinson can assure us that when these same spikes were cut there was no evidence of fungus on the bottom leaves, then I trust he will go further and tell us what dressings or sprayings were applied to the plants to render them thus immune from injury; or, if none were applied, will he say that the firm in question has now an absolutely disease-proof strain? Whichever may be the case, either information will be most welcome, as there are myriads who have gardens who would be only too delighted to be able to grow Hollyhocks clean and healthy as used to be the case many years ago.—D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

MELONS.—A night temperature of 70° must be maintained to advance the ripening of late fruits, and a little ventilation ought to be given on bright days when the fruits begin to change colour.

Cucumbers.—As soon as the roots appear on the surface of the mounds a slight top-dressing should be given. A mixture of half horse-manure and half loam forms an excellent compost for the purpose. Syringe the plants twice daily on bright days, and keep the temperature at 70° at night.

Fruit Trees in Pots.—Any repotting that is necessary should now be attended to. The potting compost ought to consist of good fibrous loam, with a small quantity of bone-meal and old mortar added. Reduce the size of the ball by removing some of the old soil with a pointed stick, and put the tree back into the same sized pot. It is important that the soil be rammed firm. Trees that do not require repotting may have some of the old surface soil removed and fresh added.

Flower Garden.

All specimen plants, such as Heliotropes, Ivy-leaved Geraniums and Fuchsias, should now be lifted, potted and placed under glass. All beds containing plants that have finished flowering may be cleared and got in readiness for the spring bedders. In preparing the beds for Wallflowers and Polyanthuses a liberal dressing of well-decayed manure should be forked in. Where bulbs are to be used for a spring display, the surface of the bed should be carpeted with dwarf-growing subjects, such as Violas, Arabis, Aubrietias and Myosotis. A bed of a good yellow Tulip carpeted with Viola gracilis makes an excellent display. Mme. de Graaff Daffodil looks well showing above a carpet of Aubrietia Dr. Mules, as also does Frank Miles, with the pretty little Viola cornuta purpurea. Polyanthuses should take a prominent part in spring bedding, as they are easily grown.

Lawns.—Frequent sweepings and rollings are necessary now in addition to the mowing. Where Plantain abounds, no time must be lost in removing it. The plants can be taken out with the aid of a small digger, and if bare places are made, a little fine soil and a few grass seeds will put them right.

Hardy Fruits.

Where root-pruning is necessary, the work may be commenced. It often occurs, especially with young trees, that too much rank growth is being made and no fruiting spurs. To remedy this evil the usual plan is to prune the roots. A trench should be taken out round the tree 3 feet or 4 feet from the stem, according to the size of the tree. In taking out the soil all the small fibrous roots must be preserved, and the large coarse roots cut through and the wounds finished off with a sharp knife. The tree, if growing in the open, must be turned on its side to allow all the roots directly under it to be cut, and great care must be exercised so that the ball is not broken. In filling up the trench after the pruning operations are completed, fresh soil should be added for the encouragement of fibrous roots. In dealing with Apricots and Cherries, one side should be operated on one year and the other the next. This also applies to large trees of the other fruits.

E. C. Pooley.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Rose Garden.

Climbing Roses.—Even the latest of these will be almost past flowering, although a few, such as Grüss an Teplitz and Gloire de Dijon, may yield an occasional bloom or two. Now is a good time to cut away the old worn-out wood and to secure as many strong young shoots as possible for flowering next year. With some varieties it is only the young growths that are worth retaining, but that popular variety Dorothy Perkins gives a fine lot of flower-trusses on old wood as well. There is no gain, therefore, in cutting too much wood out of this fine variety; rather try to spread out the growths so as to ensure thorough ripening. Crimson Rambler and Leuchtstern do little good unless vigorous young wood is available to take the place of that which has flowered. To be able to properly prune these newer climbers one has to study each separately and treat it according to requirements.

Bush Plants.—It is necessary to give some attention to the beds and borders of dwarf plants. If left their full length many of the most vigorous shoots would get twisted and broken by the winter gales, so it is well to shorten them back to about half their length. If this method is objected to, a strong Bamboo cane should be pushed into the ground close to each of these strong growths and the shoots securely tied to it.

Flower Garden.

Planting Biennials.—In most cases the beds in which the Wallflowers, Myosotis and other biennials are to bloom will now be vacant, and the sooner the planting of these is completed the better. Select dry weather, if possible, for this work, as treading on freshly dug ground while in a wet, sticky condition does a great deal of harm. Most of the Wallflowers look well edged with blue Forget-me-not, so that with these two species there need be no clashing or undesirable combinations.

Canterbury Bells.—These are also best planted in autumn, although early spring will give good results. This is a true biennial, and few plants make a finer display in their season. They do admirably on a north border, and in this position their season of blooming is prolonged considerably.

Planting Bulbs.—This work can now be pushed forward as opportunity offers. The ground should be deeply dug some time previous to the actual planting and some well-rotted manure worked in the bottom, so that the bulbs do not come in actual contact with it. It must be borne in mind that none of the Daffodils requires farmyard manure, and many of the varieties refuse to grow at all if their roots come in contact with it. It is well, therefore, to fight shy of manure when preparing the ground for the Daffodils. Bone-meal, however, is very beneficial, and may be used freely. Basic slag is also a safe dressing for ground intended for these fine flowers. If not yet planted, no time must now be lost in having all the Daffodils put in.

Herbaceous Border.

Current Work.—Many of the plants will now have ripened their foliage, and the work of cutting over should be proceeded with, so as to keep things tidy. Some little knowledge of the various plants is necessary, so that no mistakes are made in the method of cutting over. For instance, plants of a shrubby nature must not be cut right back to the ground as one would a Delphinium. Then the foliage of some kinds, like the Montbretias, is best left on the plants for protection. All weeds, as well as any loose rubbish, should be removed and the whole border run over with the Dutch hoe.

C. Blair.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE FLOWER GARDEN.

GARDEN CROCUSES.

CULTIVATED plants are, many of them, in one way something like cultivated humans, inasmuch as they seem to have a fondness for a change of dress, and break out into styles and colours unknown to them in their primitive state or, perhaps I should rather say, into shapes and hues which are more uncommon and unusual in their native haunts; for the Crocus King—as Mr. E. A. Bowles is often called by his more intimate friends—we may remember, has told us in the pages of THE GARDEN last March and April how many of the specific forms have been found to vary long before they became denizens of our gardens. He dwelt long and lovingly on the delicate beauty of form and marking and colour of his wilding subjects. He showed us how they fascinated him; but, *mirabile dictu*, we found he did not turn an altogether blind eye to the new charms that his watchful eye so often found among their children, although we noticed that the descendants of aureus vernus and versicolor *were* given the cold shoulder a little. Possibly he thinks of them as the proud sisters who would attract all the Prince's attention to themselves.

Not so, however. Their gorgeous colouring is not intended to cast a slur on their quieter-toned brothers and sisters. Nor does it for one moment suggest that they should be treated like poor Cinderella and that their intrinsic merits should be ignored. No; it only takes us back to a past of long ago, when saffron was the royal colour and when Homer described the morn as saffron-robed, and when fable made Zeus and Hero recline on a couch of Crocus flowers. The brilliant yellow and the rich purples of the garden Crocus of to-day are surely never intended to make us despise the less showy "species." They are designed rather to satisfy our longing for brightness and splendour in the early months of the year, and while doing this, at the same time to remind us of the honoured place the Crocus once held in the human world.

I was present at Haarlem at the opening of the first and second special shows of the Great Jubilee Exhibition. On one occasion the bedding in the great parterre was done with Crocuses, and on the other with Hyacinths. Nothing will ever efface from my mind the memory of the quiet rich beauty of the former, when purples and mauves and whites were blended in perfect harmony in the centre beds, leaving the glowing yellow to form a frame to the whole. Bedding with Crocuses is hazardous in our uncertain climate, but I think the risk is sometimes worth taking; a good result is so pleasing when it is secured.

And now for a list of some of the new forms: Distinction, an early soft reddish mauve. The flowers are not very large, but it is a most distinct variety. It is something like Unique. Dorothea.—I see Messrs. R. H. Bath describe this as of a Parma Violet shade. It is an excellent description to give one an idea of what this sterling novelty is like; free bloomer; very beautiful. Hero, a rich glossy purple; elegant-shaped flower; very large. May, pure white round flowers of great substance; rather on the small side, but on this account stands rough weather very well; a real gem. Raphael, interior of flower white, outside pale purple, tipped and striped white; large. Beauty, pale lilac, inside segments pale purple; distinct. Pearl, light lilac striped; very pretty. Fantasy, outside striped blue on light ground, inside blue; large flower. Shakespeare (Polman-Mooy), pale blue-purple, with a white tip. Columbia, dark reddish purple; long-shaped flower. Van Dyck, a large, free-flowering purple. President (van der Schoot), a grand striped flower; white ground, heavily marked and splashed purple; large bloom; the best striped Crocus. King of the Whites, a magnificent large white; very free. John Bright, a very early round goblet-shaped purple. The foregoing are some varieties that I have either grown or seen last spring, and I can recommend them all. JOSEPH JACOB.

SWEET PEA CHAT.

INDOOR AUTUMN SOWING.—The popularity of sowing the seeds of Sweet Peas in pots in the autumn is steadily growing, and there is little doubt that it will continue to do so as the decided benefits which accrue upon the practice become better and more widely appreciated. That there are disadvantages none will dispute for one moment, but these occur at whatever time the seeds are sown and under whatever conditions they have to be managed. And does not a little extra trouble add to the interest and increase the pleasure and gratification when splendid success is achieved? The Sweet Pea is emphatically a plant which wants to make roots, and this tendency the wise cultivator encourages by every reasonable means that may lie within his power, and one of the readiest aids is indisputably autumn sowing in pots. Correctly managed, the plants, although they may not—probably will not—make any substantial top growth, produce wonderful roots, and thus lay the foundation for an immense capacity to feed without the least danger of imbibing too hastily and too coarsely, and thus getting away to the floppiness and lack of grace and elegance to which attention has previously been drawn in this column. During the autumn, winter and early spring the young plants are quietly but incessantly making roots, with the result that when they have to be placed in their permanent positions they are magnificently furnished and cannot fail to bring satisfaction, provided, of course, that the soil and all other circumstances are favourable. The actual time of sowing will necessarily vary slightly, but, generally speaking, between October 8 and 20 is the best period.

SMALL *v.* LARGE POTS.—Having in view the fact that Sweet Peas have a decided partiality for sending their roots downwards rather than extending them laterally, and fully believing that in the vast majority of instances it is wise in plant cultivation to follow a road to which Nature emphatically points, I have no hesitation in recommending 6-inch pots. It is beyond doubt that splendid results will follow the utilisation of small pots; but it is almost always imperative after autumn sowing to repot, and it is not all growers who can find the time for this or enjoy the skill to carry it out without giving a more or less severe check to progress, and this is never desirable. Obviously, the final decision upon such a detail as this must rest with each cultivator who is governed by his circumstances and conveniences; but whenever it can be managed, the 6-inch pot should be chosen rather than the 3-inch.

SOIL AND CROCKS.—In considering the soil mixture it is wise to bear in mind that the roots have to ramify in it for a considerable length of time, and the importance of providing something of excellent quality and maintaining it in perfect condition will at once be seen. Nothing inferior to the finest fibrous loam should be accepted as the basis, and the remainder may be of refuse manure and sharp sand in the proportions of three of the first, one of the second, and an eighth or a tenth of the third, all thoroughly mixed a few days prior to actual use, when the mass must be pleasantly moist. The particular object of the coarse sand is to keep the compost porous, but it must be aided in this by efficient crocking at the bottom of the pot. Excessive drainage is by no means desirable, since it will spell the loss of valuable food; but it is equally imperative that there shall be no stagnation which will lead on to sourness and failure, and this is inevitable unless the crocks are sufficiently numerous and properly placed. Spend a little time not only in choosing suitable pieces, but in placing them correctly, as this is one of the many little things that is thoroughly worth doing well. It is not, I feel sure, necessary to say that both pots and potsherds should be quite clean.

SETTING THE SEEDS.—The word setting is used in preference to sowing, for the simple reason that each seed should be put in a definite position. A 6-inch pot will accommodate five seeds, and these should be placed at equal distances asunder about three-quarters of an inch from the edge of the pot. In most instances a depth of from half to three-quarters of an inch answers admirably, and the top covering may be of fine soil; but all white or pale-coloured seeds should be set a quarter of an inch deep only, always on sand and also covered with sand. The same rule holds good with varieties having mauve in the blossoms, all of which throw rather ugly, spotted, wrinkled seeds. SPENCER.

THE FRUIT GARDEN.

THE APRICOT AND ITS CULTURE.

A CORRESPONDENT reminds the Editor of a promise given in early summer to revert to the growth of this fruit in the autumn when planting-time had arrived, as well as the time when new soil should be applied to the roots of trees which have proved unsatisfactory. The promise is now being redeemed; but instead of replying in the form of an answer to a single query, a wider view is taken and a brief sketch given of how to successfully grow this tree from the time it leaves the nursery as a three year old trained tree until it is fully established as a fruiting specimen on the wall. The first important point to consider is the quality and nature of

The Soil.—It goes without saying, must be well drained. It should consist of a deep, rather heavy loam at least from 20 inches to 24 inches deep, resting on a basis of gravel for preference; but, if the land is well drained, this does not matter so much. Where the soil happens to be of a light, poor and shallow nature, it is hopeless to expect the Apricot to do any good. But it is a tree of such value that no garden of importance can afford to be without it. It well repays, when properly grown, any labour or expense entailed in forming a proper border for it to grow in.

Aspect.—In the Home Counties and the South of England it will succeed very well planted against a wall facing west, but a south or south-west aspect would be preferred even in those cases, and would be imperative in the Midlands or further North (where it succeeds).

The Preparation of the Soil.—Where the soil consists naturally of the quality and depth described, no other soil need be added, but this natural soil must be trenched to a depth of at least 2½ feet and to the extent of 4 feet square of area to each tree. In trenching the following ingredients and quantities should be added to, and thoroughly mixed with, the soil for each tree as it is being trenched—half a bushel of old mortar rubble broken fairly small, half a peck of quicklime, a gallon of soot and the same of bone-dust. This should be done, if possible, some few weeks before planting takes place.

Selecting Trees to Plant.—These should be three ear old fan-trained trees. See that they are ell balanced as regards having the same number f branches on both sides of the tree. If there are any more on one side than the other, no one can ake a well-balanced tree of such a specimen fterwards. Also take particular notice that the ranches of the trees are not too gross and over-gorous. These conditions often prove fatal to he subsequent success of the trees.

The Planting of the Trees.—About the second eek in November is a good time to plant, although anting may be successfully carried out any time etween that date and the end of January, but not uch later than that, as the tree is usually in lossom in February. The prepared stations, or paces for planting the trees, should be pressed own fairly firm at the time o trenching, so hat the ground will not afterwards nk materially. Dig out with a rk a square hole in the prepared il larger all round by 6 inches han the extreme points of the ots when they have been pruned ill reach to. The depth of the ole (measuring from the surface-vel), should not be more than inches. Deep planting must be voided. The larger roots of the ee should be cut back by one-ird their length, using a sharp nife for the purpose, the cut eing slightly slantwise and the t side uppermost. The ends the smaller roots should also shortened. The young tree ould now be placed in position gainst the wall and the soil care-lly placed over and round the ots by hand, covering the lower yer of roots first, pressing the soil rmly, serving the second and last yer of roots the same, and then eading down the surface firmly. dry period should be chosen for anting, and give a good watering ter the work is completed, as this lps to settle the soil firmly round e roots at once.

Pruning.—The Apricot bears its uit chiefly on spurs, and when e tree is once well established d bearing fruit freely very little uning is necessary, heavy crops fruit being the best pruner, if e term may be used. As far as e young tree in question is con-rned, the pruning will consist cutting back all the leading oots of the previous year's owth in winter by half their ngth, with the object of inducing em in the following spring to produce more shoots om the lower buds of the growths cut back, in der to supply the required branches for the for-ation of the body or the frame of the tree. The me process will have to be repeated each year as r as the leading branches are concerned until the ne arrives when the tree has filled its allotted ace on the wall, after which the leading shoots ll have to be spurred back to two or three buds their bases. The other requisite pruning is the tting back of the fore right side shoots (which ow out of the main shoots) in summer (middle July) to within four leaves of the base of the oot, cutting further back the same shoot in nter to within two buds of its base. The Apricot ll also bear fruit freely on the young shoots of previous year's growth in the same way as does the Peach, and sometimes it is necessary to lay in a few of these branches to fill vacant spaces in the body of the tree where such exist.

OWEN THOMAS, V.M.H.

(To be continued.)

APPLE ROUND WINTER NONSUCH.

WHILE there are in this district a goodly number of trees of the different varieties bearing very scanty crops of fruit, this variety is quite the reverse. We have a large tree, growing in a rather exposed position, bearing a heavy crop of very nice clean fruit, and the same may be said of other trees of this variety with which I have come in contact in the neighbourhood. The fruits are of a reddish bronzy colour and keep splendidly, being good for culinary purposes, and well deserve attention from those intending to plant on a large scale for market purposes.

Wrotham Park Gardens. H MARKHAM.

A NEW YELLOW MULTIFLORA HYBRID ROSE: DANAE.

ROSE DANAE.

IN the rush to see those new varieties staged for medals or cards of commendation at the National Rose Society's recent autumn exhibition, many of the public failed to find several new sorts of merit that were included in other exhibits in various parts of the hall. One of the most interesting of these was the yellow-flowered variety Danae. It was raised by the Rev. J. H. Pemberton, and the vase of flowers illustrated was shown by him in the class for twelve distinct varieties. It has probably come from Trier crossed with Alister Stella Gray or Etoile d'Or, and is said to be perpetual flowering.

SOME RANDOM ROSE NOTES FROM AMERICA.

IT would seem that we have had almost enough lately regarding wichuraiana hybrids, multiflora hybrids, rugosa hybrids and species; nevertheless, I begin these notes with two wichuraiana hybrids if only out of courtesy to Dame Fashion.

Doctor W. Van Fleet (raised by Dr. W. Van Fleet and sent out by Peter Henderson and Co., New York) is said to be a cross between wichuraiana and Souv. du President Carnot. The flowers very closely resemble the latter Rose and come singly on long stalks. The growth is very vigorous and the foliage handsome, both being distinctive of the wichuraiana group, though one would take the flower, if seen by itself, to be a Hybrid Tea or Tea. If this Rose proves to be as good a bloomer as is claimed for it—a point on which I can give no information, as my plants were cut hard back, leaving only one cane long enough to produce a few flowers—it will certainly be a most distinct and valuable acquisition. Said to bloom again in the autumn. Silver medal, Horticultural Society of New York, 1908.

Silver Moon (wichuraiana × Rosa sinica, sent out by Peter Henderson and Co., raised by Dr. W. Van Fleet) if a free bloomer—it is described as being "very floriferous, the plants literally covering themselves with great Clematis-like flowers"—I know of no Rose that will surpass it for decorative purposes. The flowers are easily 4 inches in diameter, and very much resemble a thin Frau Karl Druschki, with bright yellow stamens. The above-quoted description—"Clematis-like"—would, I imagine, exactly describe its general appearance from a short distance. The growth is very vigorous, the foliage is large for this class, and the flowers are very beautiful. Silver medal, Horticultural Society of New York, 1908. The foliage of both of these Roses is said to be disease-proof, and none of my plants had shown any disease at the time of writing (August 26).

The only other Rose of 1910 of which I have seen enough to venture an opinion is Claudius (Benjamin R. Cant and Sons), and so far as my experience goes, with but one plant to judge by, I feel sure it will prove to be a most reliable variety for both exhibition and the garden. During its first blooming period the weather for three or four days was very rainy, entirely spoiling most of the Roses in my garden, but Claudius opened in splendid form, the guard petals alone being slightly soiled; and while this Rose was making wood and buds for another period of flowering, the weather was quite the reverse, the thermometer being in the nineties a good portion of each day and no rain for three weeks or more (here I am tempted to preach about the advantages of keeping the top soil well cultivated, but it would be too much of a digression). Nevertheless, the flowers, with one exception, kept their shape and were nearly as large as the earlier ones. Claudius is very fragrant, its scent being that which is called by some the "true Rose perfume."

Of the Roses of 1909 which have found a place in my collection, I shall only mention one. There were a dozen or more other varieties that started out well, but then came the very hot, rainless weather—such weather as the happy rosarian of the British Isles need never fear—and only the following Rose bloomed well enough to allow of any opinion being formed that would be at all reliable:

Lady Alice Stanley (McGredy) has proven to be, with me, one of the very best and freest-flowering Roses sent out for some years, and not only is it free-blooming, but the flowers were almost as good during our trying hot and dry weather as they were earlier, and on August 26 I cut a bloom of the largest size and of perfect form and colour. The colour scheme is not unlike that of Souv. de Maria Zozaya or William Notting, "outside of petals coral rose, inside pale flesh." Nevertheless, Lady Alice Stanley is perfectly distinct (it is strange how the colour of two varieties of Roses may be described with the same words and yet be totally unlike), and altogether a Rose that should be in every garden, for any Rose planted this past spring and subjected to the hot and dry season we have had this year, and, notwithstanding these drawbacks, is still able to make growth and bloom continuously is certainly worthy of a prominent place in any collection.

To go backward year by year and write of all the beautiful Roses introduced in the last half-dozen years, though perhaps a labour of love to the writer, would probably not be so enthusiastically received by other readers of THE GARDEN, yet I would like to take just one glance back to the year 1904 and say a few words regarding Königin Carola (Turk), a Rose which, though always well spoken of, does not seem to have acquired the prominence it deserves, though I am pleased to see it more frequently mentioned in the reports of the various Rose shows this year than formerly. The reason for the lack of appreciation of this Rose is, I think, not far to seek, and lies in the fact that it is generally described as being almost identical with Caroline Testout; consequently, as almost everyone grows the latter Rose, there must be very many who would not care to add to their collection a variety supposedly so similar. It was for this reason that I did not grow Königin Carola until I had seen it growing in the Old Rose Gardens of Messrs. Benjamin R. Cant and Sons during the summer of 1907, and remember well how surprised I was that it did not more closely resemble Caroline Testout, and mentioned the fact to the gardener with whom I was talking. He agreed with me that they were perfectly distinct from each other, and further remarked that he considered the former variety—Königin Carola—the better Rose It would be difficult to describe the difference in appearance of the flowers of these two Roses, and I shall not attempt to do so beyond saying that, in my opinion, Königin Carola is of more refined form.

White Plains, New York. A. L. SQUIRE.

ROSE HEDGES.

THE BEST VARIETIES TO GROW.

WHAT an adjunct to the garden is a really good Rose hedge, and yet how seldom is it utilised. I venture to think that there are few gardens where one might not properly and beneficially find room for this useful ornament. One invariably sees the kitchen garden shut off, as it should be, by a screen, usually of Privet. The difference in cost is trifling; the difference from the garden point of view immense. I have long rooted up all Privet as an unprofitable investment, an expenditure of capital that produces a very inadequate return, and that eats up the surrounding soil out of all proportion to its legitimate requirements. Greedy, unkind, unpleasant in all its ways is Privet, yet it is to be found in most gardens, and is more universally planted than any other shrub in the British Isles.

THE REV. F. PAGE ROBERTS, PRESIDENT OF THE NATIONAL ROSE SOCIETY. THE ROSE IS TAUSENDSCHON.

But I set out to write about Rose hedges, and, having consigned the Privet to the fire, I will make a few suggestions as to which Roses should take its place. It will be necessary to bear in mind the situation, aspect, purpose for which it is required, height and other matters; but it may be broadly stated that a suitable Rose can be found for any situation and aspect, and I shall be quite willing to advise any reader of THE GARDEN who may have doubts as to the best Rose to use in his or her own case. There are certain things that appertain to a good hedge. It must be easily kept in order, it should be dense and solid, a real screen all the time and not during the summer only—in a word, should be ornamental as well as useful. Now, is there any Rose that can answer to all these requirements? I admit there are not many that reasonably fulfil the whole, but there are a great many (in fact the choice is so great that everyone's own particular fancy may be satisfied) that fulfil more of them than does Privet, and therefore I ask you to at once consign the Privet to the fire.

The Rose *par excellence* for a hedge can be found among the many varieties of the wichuraianas. They are free enough growers to make an impenetrable thicket in a few years. Some of them retain their foliage right through the winter; they can be trained easily to grow in any position; an established hedge may count its blooms by the thousand and will provide foliage for the whole season. And what foliage is more beautiful? Their flowers bloom in clusters of thirty to twenty and fewer blooms down to the fives and threes and even single flowers on stems. They provide button-holes, fill vases, are most useful for house and table decoration, and, in addition, when in full flower are one of the most beautiful sights that the eye can rest on in the garden.

Any of the following varieties make handsome hedges: The best yellow, shading to white, is still, I think, Gardenia, with beautiful yellow buds and its three to five flowers borne on long shoots. It lasts in flower a solid six weeks. The best white is, I think, Schneeball for blooms produced more or less singly, and White Dorothy for flowers in clusters. The most beautiful of all the many shades of pink is Lady Godiva or Dorothy Dennison. It is not easy to separate them; both flower in clusters. Of those producing flowers of three to five in a group or singly, I think Joseph Lamy, white with a pink flush, and Florence Jouranville the two best. The latter I can strongly recommend as a Rose that should be in every garden. Then for reds we are confined to Hiawatha, a single crimson rambler, and Joseph Billard; but beautiful as are the large single flowers of this latter variety, they are too fleeting, and the petals drop directly the Rose is fully expanded. The combination of bright carmine and orange yellow is very striking. Of Excelsa it is too soon to speak definitely. Those who like single Roses can grow Evangeline and Jersey Beauty with every confidence. The latter retains its foliage until the new leaves push off the old ones, a very desirable feature if a thick screen is wanted. To produce the finest effect one variety only should be used, and if I was limited to one wichuraiana I should vote for Gardenia. On the other hand, a judiciously mixed hedge very much prolongs the flowering period, and may appeal to some tastes more than a hedge of one variety only.

H. E. MOLYNEUX.

(*To be continued.*)

NEW ROSES OF THE YEAR.

(*Continued from page* 486.)

ENTENTE CORDIALE (Pernetiana, Guillot, 1909).—A lovely garden Rose with Juliet-like blendings of colour, but the flower is scarcely more than semi-double. It seems to be fairly perpetual. The clusters of bloom, numbering sometimes as many as fifteen, are very showy. This Rose received high honours at the Bagatelle trials this season.

Erna (Polyantha, Teschendorff).—A sport of Mme. N. Levavasseur, but of a brilliant dark crimson colour. Probably the best of its colour.

Ethel Malcolm (H.T., S. McGredy and Son, 1910).—This Rose was the greatest novelty last year at Luton. This year it was beaten by Walter Speed. It is a grand flower and may be seen better, although I confess I was not impressed by it this year. It is of fine growth, and a flower of the type of Mrs. W. J. Grant, only ivory white in colour.

Etoile du Portugal (Hybrid of Rosa gigantea, Cayeaux, 1909).—The first of a new race. What will it produce for us? Here we have R. gigantea, which few have ever seen in bloom, suddenly giving us a seedling by crossing with Reine Marie Henriette. The colour is shrimp pink, shaded salmon, with yellow base. Very showy, and bud of perfect form. Climbing habit.

Eugene Boullet (H.T., Pernet-Ducher, 1910).—A grand flower of Laurent Carle type. Colour crimson, shaded carmine lake. Extremely free-flowering, and consequently a fine addition to bedding Roses.

Fairy Rambler (William Paul and Son, 1909).—A pretty perpetual-flowering Rose resembling in blossom R. wichuraiana (the type).

Firminio Huet (H.T., Soupert et Notting, 1909). A splendid flower of large size, colour bright deep carmine. The blooms are very full. A seedling from American Beauty crossed with Richmond.

Fragezeichen (Hybrid Wichuraiana, Bottner).—A cross between Marie Baumann and Dorothy Perkins, and may be described as a gigantic-flowered Tausendschön. Surely some of our older ramblers will have to drop out when we have these large-flowered novelties coming along.

Frau Oberburgermeister Piscq (H.T., Jacobs).—This was well shown at Liegnitz Exhibition and attracted much attention. It is an enormous flower, the inner side of the petals ochre and outside sulphur yellow, of ideal form and long-shaped buds.

Gaston Cazalis (T., Dubreuil, 1909).—Deep purplish crimson, shaded carmine, of irregular form, somewhat resembling a Cactus Dahlia. A fine decorative Rose.

George C. Waud (H.T., A. Dickson and Sons, Limited, 1908).—One of the grandest-coloured Roses yet introduced—glowing orange vermilion that does not fade. Flowers large, full, of perfect form and high-centred, well deserving the gold medal awarded in 1908.

Georges Cain (Gravereaux).—This variety received a gold medal at the Bagatelle trials this year, but I have no information as to its class or merits. It must, however, be a good variety to obtain such a distinction.

George Reimers (H.T., Soupert et Notting, 1909). A grand addition to our rapidly increasing numbers of bright-coloured Hybrid Teas. It is a splendid bedding sort; flowers large, very full and of excellent form, colour brilliant fiery red, buds long and elegant.

Grafin Stephanie Wedel (H.T., Lambert, 1909).—Robust, erect growth, flowers very large and full, colour creamy white, passing to yellow. A cross between Dr. Grill and Caroline Testout.

Graf Zeppelin (Hybrid Multiflora, Boehm, 1910). This is said to be a very excellent rambler of a distinct bright coral red colour. The raiser, in a letter before me, says it is a cross between Dorothy Perkins and Crimson Rambler; while in a translated report of the Rose show at Liegnitz, where this Rose gained a large silver medal this year, it is announced as a bright red sport of Non Plus Ultra.

P.

(*To be continued.*)

AN EXTRAORDINARY STANDARD ROSE.

IMAGINE a standard Rose 9 feet high and 12 feet in diameter. Such is the size of a specimen of Innocente Pirola on the lawn of C. E. Gabain, Esq., of Bushey, Herts, and the bush looks as healthy as possible. The gardener in charge said it was planted twelve years ago. The accompanying illustration conveys only a poor idea of the magnificent dimensions of this wonderful Rose. In these grounds is also a very fine Cork Oak, quite the largest I have seen; it is over 4 feet in diameter.

Leonardslee. W. A. COOK.

ROSE INNOCENTE PIROLA IN A BUSHEY GARDEN.

VARIOUS TYPES OF RAMBLING ROSES.

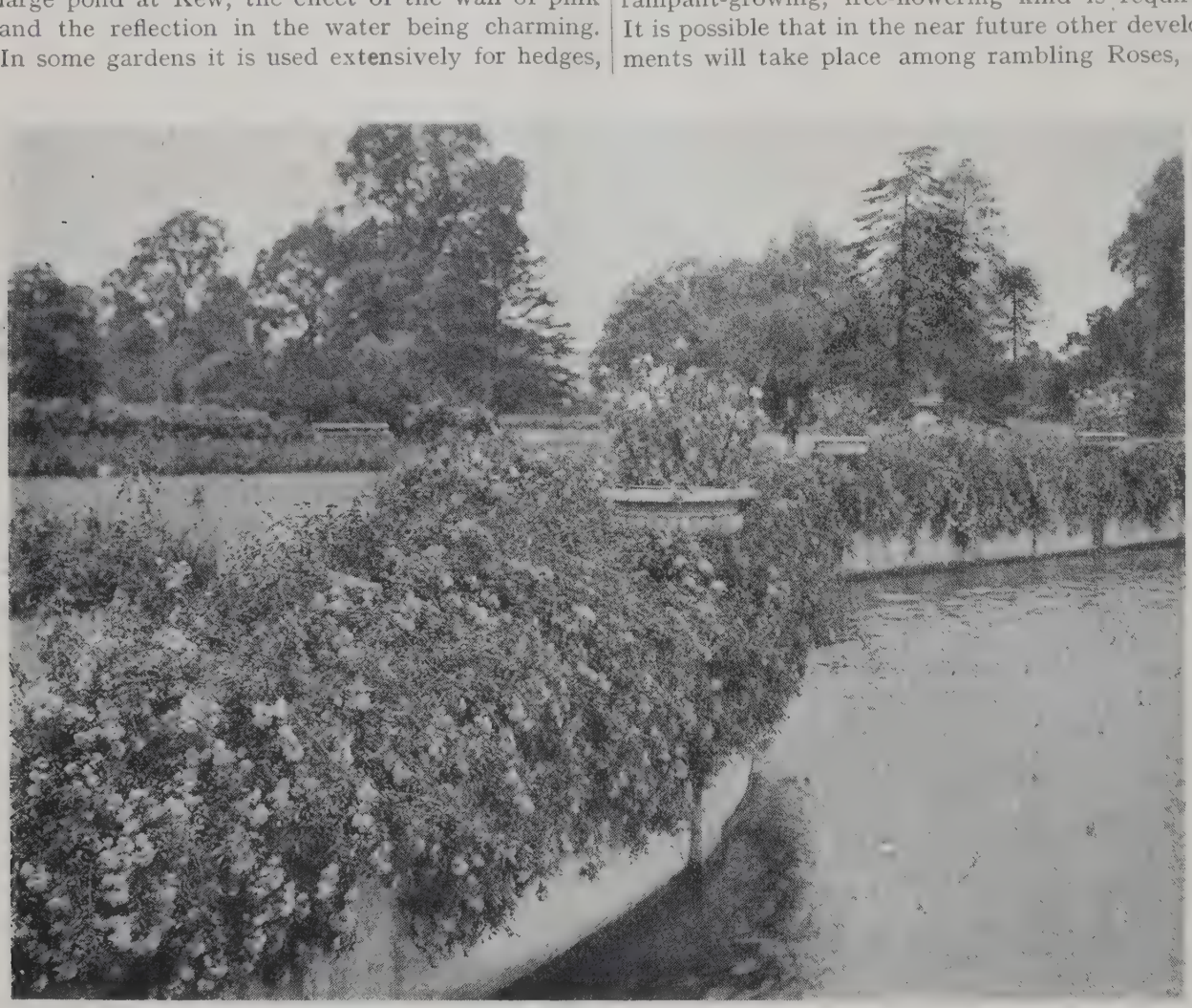
THE advent of Crimson Rambler Rose some eighteen or twenty years ago opened up a new era in the history of the Rose, for previous to that time, though a number of showy climbing varieties were known, they were grown in a more or less desultory manner, and no systematic attempt was made to form a distinctive garden feature by their aid. Crimson Rambler was, however, the courier of numerous new varieties which have revolutionised the Rose garden, for rambling or climbing Roses are now as much a necessity to an up-to-date garden as any of the special groups which have for so many years held prominent places in the garden. It is, moreover, possible that these new kinds are more widely grown than the Hybrid Perpetuals and Teas, for they are everyone's plants. Anyone with a tiny garden may grow one or more against his fence or bit of trellis and have quite as effective a specimen as the owner of a large domain. The wealth of material now at hand of this particular class is extensive and the number of varieties legion, while hosts of new ones are appearing annually.

The reason for their rapid rise to popularity is possibly due to their adaptable nature, for they may be utilised for a great variety of positions and rarely look out of place. Pergolas have multiplied exceedingly since the appearance of the Rambler Roses, and a pergola certainly forms an ideal position for the numerous varieties, for a judicious mixture of white, pink, red and yellow flowered varieties with their flowers falling in festoons from supports and cross-bars is a most effective feature. As a covering for a summer-house or arbour, climbing Roses are again a great success, while informal hedges have much to commend them. Planted against rough Oak posts to form pillars is another effective means of culture, as also is the weeping method when the most elegant kinds are budded on tall standards, their branches falling over a wide crinoline of wire in luxuriant confusion.

Three species which have played an important part in the production of this particular group are Rosa multiflora, R. wichuraiana and R. rubiginosa. The former is the old Polyantha Rose, a native of China and Japan, distinguished from other species by its large heads of fragrant white flowers. This species is one of the parents of many of the earlier kinds, the other parent being some form of cultivated garden Rose, many of which have been used. Early raisers used General Jacqueminot to some considerable extent as a parent, and that beautiful pink known as the Dawson Rose is a hybrid between that variety and multiflora. It is unnecessary to give a long list of varieties of each particular type, but the following selection will be sufficient to define the multiflora hybrids: Blush Rambler, Crimson Rambler, Dawson Rose, Electra, Helene, Mrs. F. W. Flight, Psyche and Waltham Rambler. The wichuraiana Roses have been raised by crossing the Japanese R. wichuraiana with various garden Roses, principally of the Tea group

They are characterised by the long, slender branches which sometimes attain a length of between 15 feet and 20 feet in a single season, and by their glossy sub-evergreen leaves. Some varieties resemble the Teas by producing flowers throughout the greater part of the summer, while others, which contain blood of the multiflora varieties, produce all their flowers at one time, after the manner of Crimson Rambler. The species is white-flowered, and an excellent subject for growing on banks. All the varieties grow rapidly, and may be used for all kinds of purposes. The well-known variety Dorothy Perkins is one of the most popular Roses of the day, and justly so, for its free-flowering qualities and delicate colouring fit it for many kinds of work. The accompanying illustration shows it hanging down over a wall to meet the water of the large pond at Kew, the effect of the wall of pink and the reflection in the water being charming. In some gardens it is used extensively for hedges, and a hedge 100 yards long and 8 feet high and quite as much in width, when covered with flowers, is a sight not readily forgotten. This particular type of Rose is one of the easiest possible to propagate, for cuttings inserted in summer root with the greatest freedom. The chief difficulty in dealing with the wichuraiana group is in the pruning, for in certain places it is necessary to keep them from becoming too dense, and the old growths have to be removed after the flowers are over in the same way as is done with the multiflora group. Their rampant growth and spiny character make this a business which is peculiarly trying to both patience and temper. Representative varieties are Alberic Barbier, Auguste Barbier, Débutante, Dorothy Perkins, Edmond Proust, Elise Robichon, Hiawatha, Lady Gay, Minnehahà and Paul Transon.

The members of the rubiginosa group are better known as Penzance Briars, the name being given on account of the hybrids having been raised by Lord Penzance, who crossed the Sweet Briar (Rosa rubiginosa) with various garden Roses. The numerous varieties have very bright-coloured flowers and blossom freely, while the foliage retains the delightful perfume which renders the Sweet Briar so popular. This particular group is well adapted for planting as hedges, while it also gives good results when the different varieties are planted in large groups. Should the plants become overgrown, they may be cut hard back without fear of killing them, the only loss which is likely to be sustained being that of one season's bloom. Notable varieties are Anne of Geierstein, Amy Robsart, Catherine Seyton, Lady Penzance, Lord Penzance, Lucy Bertram and Meg Merrilees. This group fruits freely, the heps ripening during autumn. In addition to the kinds already noted, there are numerous varieties belonging to the Noisette and Tea groups which make excellent additions to the list of climbing Roses, while the Musk Rose (Rosa moschata) should be included where a strong, rampant-growing, free-flowering kind is required. It is possible that in the near future other developments will take place among rambling Roses, for there are other decorative species which may well be used for breeding purposes. D.



A FRINGE OF BEAUTY: ROSE DOROTHY PERKINS AT KEW.

A PLEA FOR OLD FRIENDS.

I STOOD on the lawn of the Royal Botanic Gardens, Regent's Park, on July 8 last and wondered. It was the day of the National Rose Society's exhibition, and before me was a *queue* of people two abreast, a *queue* some 25 yards long, extending to the entrance of a small tent. It differed from the *queue* one sees outside a popular theatre formed and controlled by the police. With such it is only a question of time, and the people disappear inside. But this *queue* at Regent's Park was self-formed, self-regulated, and it lasted. One by one people entered the tent, one by one others took up their places behind. It was there at noon, it was there at four o'clock, and I am told it was there until closing-time. This tent contained the new seedling Roses staged with the hope of gaining a gold medal, and I wondered. For the expert, the specialist, the trade grower, a new Rose was an attraction. But for the lover of flowers in general, the possessor o a small garden, for the grower of a few Roses, wh was it that impelled them to spend an hour waitin their turn to enter the tent, while in the main pa of the exhibition there were to be seen Roses sterling worth which doubtless had no place i their gardens? Were they of the Athenians an strangers who "spent their time in nothing el but either to tell or hear of some new thing"?

This craze for new Roses, to what is it leading Are we to discard old favourites to make room fo new-comers? We seem to be inundated with ne Roses. Never before has there been so man novelties on the market. How many of them wi last? And surely our gardens will suffer. Spac in the garden is limited. If there is to be an influ of novelties, there must be a corresponding exodu of old sorts. It is true we must discard many ol friends; we do it with a pang. General Jacque minot, Beauty of Waltham, Mme. Victor Verdie and others, one by one we have to part with them for they are not really perpetual. But there ar others which should remain.

With the introduction of the ever-increasing wichuraianas and multifloras the old favourite pillars are disappearing. Take the Ayrshires, for instance. How seldom we see, except in old gardens, such sorts as Félicité Perpétue, with its huge bunches of creamy rosette-shaped flowers, Leopoldine d'Orleans (white, tipped with pink) and Mme. D'Arblay, all three excellent pillars, hardy evergreen growers that will flourish under the shade of trees! Can we afford to lose them? And Blairii, blush rose, with crimson centre, so suitable for covering a wall or front of a house or cottage. And as for perfume, what novelty surpasses the old York and Lancaster—the Damask I mean, not Rosa Mundii? Maiden's Blush is another. Yes, I hear you say, these are only summer-flowering varieties. Well, so are Dorothy Perkins and Crimson Rambler and the wichuraianas.

But take the Perpetuals. There are some grand sorts equally neglected in these days—Aimée Vibert, Souvenir de la Malmaison and Gloire de Dijon, prime favourites thirty years ago, and they deserve to and would be now if we did not fill our gardens with untried novelties. If we were to content ourselves with two or three of the best wichuraianas, the best multifloras and such-like, we should be able to retain many old and valuable favourites. Joseph H. Pemberton.

COLOURED PLATE.

PLATE 1410.

ROSE JULIET.

HAD one suggested, a few years ago, before the science of hybridising had reached the stage it has to-day, that it were possible to raise such a Rose as this, it would have been considered a fantastic dream. It is almost as wonderful as a blue Rose would be, and I am sure far more acceptable. As may be seen in the coloured plate, the flowers are a lovely scarlet carmine in the inside of the petals, the outer side being old gold, and when the petals reflex at the edges the combination of such distinct tints is very striking and unique. Unfortunately the old gold colouring is not too well shown in the coloured plate, which has been prepared from a colour photograph. This blending in a Rose, as one writer has said, must be seen to be believed. Messrs. William Paul and Son of Waltham Cross are to be congratulated upon raising this fine novelty, which adds yet one more to the many excellent productions of the firm. This beautiful Rose is not merely unique in colour, but it possesses a vigour of growth even

rivalling its pollen parent, Soleil d'Or. Maiden or yearling plants, if unchecked, will attain to a height of 7 feet to 8 feet, the growths being as thick as one's finger and of almost a mahogany colour, the foliage being very pale grass green. The leaves have a peculiar fruity fragrance, but the flower has the delicious scent of the Hybrid Perpetuals.

What a Rose this will be to plant as an isolated bush, for bold bedding, for hedge-work or for pillars! And as a standard it cannot fail to be a great success if carefully pruned to outward-looking eyes. I think the best method of planting Juliet in large gardens will be among distinctive flowering shrubs and herbaceous plants, such as Hydrangeas, Weigelas, Spiræas, Delphiniums and Chrysanthemum maximum; then its wonderful colouring will be seen to better advantage than if planted in the Rose garden, although, of course, even there, by surrounding it with pale cream and white varieties, it will lose none of its striking individuality. Juliet is not merely a good summer Rose, but it also flowers freely in autumn, and I should say is one of the hardiest Roses we possess. I would commend the Rose also for pot culture, not for winter flowering exactly, but for March and April.

ROSE BLUSH RAMBLER.

WERE I asked to name a good companion to Crimson Rambler, I could not suggest a more suitable variety than the subject of this note, a showy member of the multiflora tribe. Introduced as far back as 1903 by Messrs. B. R. Cant and Sons, it speedily made for itself a name, and was accorded the high honour of the gold medal of the National Rose Society, an honour rarely bestowed upon Rambler Roses. It is exceedingly vigorous, and quickly clothes pillars and arches with its long shoots, which are covered from base to summit with huge clusters of beautiful soft blush-coloured flowers much resembling Apple blossom, and lasting for a great length of time both on the plant and when cut. While it is peculiarly suitable for clothing poles and arches, it may be grown with much success as a free bush, a form of growth I would strongly commend to all who have large gardens. One of the finest sights I had seen for a long time was some dozen or so free bushes of this variety growing in the Rose garden at Hatfield House some few years ago, every growth being covered with bloom. This mode of utilising some of the best of the multiflora Roses is worthy of extensive adoption, such grand varieties as Mrs. F. W. Flight, Rubin, Grüss an Zabern, Helene and Psyche making a glorious display. Blush Rambler is one of the very best and most effective varieties for pot culture, many thousands of this Rose finding their way into the great market centres every spring-time. A formidable rival to this variety will be Bagatelle, the immense clusters of bloom being of a more delicate blush shade than even Blush Rambler. Other commendable sorts are Bordeaux (with handsome claret red clusters), Flower of Fairfield, the perpetual-flowering Crimson Rambler, Non Plus Ultra (a dark maroon Crimson Rambler) and Veilchenblau, the blue rambler, which should be grown only outdoors, and is then a very distinct novelty, producing fine clusters of reddish lilac flowers when opening, which change to amethyst and steel blue, reminding one of March Violets. All of these Roses make grand, free-headed standards, but should be well isolated.

P.

A PILLAR CLOTHED WITH ROSE BLUSH RAMBLER.

A CHAT ABOUT ROSES.

I HAD been trying hard to think of something worth saying about Roses for The Garden that has not been said before, and had almost written to ask the Editor to let me off until a more convenient season; but just as I was going to beg to be excused, I remembered that I had been asked several times this summer by neighbours why their trees of Grüss an Teplitz had lost all their leaves after blooming (probably some readers have had a similar experience). And as my trees did the same last year and the year before and have not done so this, I advised them to do what I did, viz., to lift the trees carefully at the end of October, to deeply trench the ground, to put a good supply of manure about 1 foot below the surface of the bed, to ease this slightly with fresh loam, and on this to spread out the roots, filling up with fresh soil which has had a sprinkling of bone-meal mixed with it. Then stake and tread firmly, and I think the probability is that the trees will not suffer so badly, if at all, next summer from black spot. My trees have not had this disease this year and are making good growth. It is advisable, also, to collect the fallen leaves and burn them.

Strong-growing varieties soon exhaust the Rose food in the soil and, if they are not fed, say, with liquid manure, are sure to succumb more or less to some enemy of the Rose. Let me also say that it is possible, though not advisable unless quite necessary, to transplant Rose trees in the middle of summer successfully. Well, we know that, says some wise one; but it is not everyone who does know it, or ought to know it. I did it without knowing it last June, and this is how it came about. I had an old plant of William Allen Richardson which would not grow, and as the position was a prominent one and I had received a plant of Messrs. Paul and Sons' beautiful Ariel, I dragged up the bush of William Allen Richardson, intending to throw it on the rubbish-heap to be cremated later on; but as there was an unoccupied corner of a wall at which Maréchal Niel refused to live, I stuck it in. I expect some readers will object to the words "dragged" and "stuck" when applied to operations on the Queen of Flowers, but that is what was done to this plant, and it is now growing better than the variety has done since it was introduced to my garden,. I believe that many plants can be removed at any time in the growing season with success, but it must be done properly and carefully; and, lastly, do not follow my example.

Stratfieldsaye Rectory. F. Page-Roberts.

GARDENING FOR BEGINNERS.

SOME COMMON ENEMIES OF THE ROSE.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Calceolarias are very showy in our flower gardens and are easily stored during the winter months. Amateurs who only possess very moderate conveniences for the safe keeping of bedding-out plants through the winter cannot do better than make up their minds to cultivate Calceolarias somewhat

1.—ROSE LEAF BADLY ATTACK BY MILDEW.

extensively. It is now quite time to finish the work of inserting cuttings, though in special circumstances some may be put in nearer the end of this month. If put in too early the cuttings do not form nice bushy plants, but run up spindly and flower prematurely. Usually the cuttings are inserted in cool frames facing north or east. Certainly they will thrive in such situations, but there need be no hesitation to use frames facing due south. It will be necessary to shade the cuttings from bright sunshine at first until they will stand erect. In spring the young plants will be exceptionally strong if grown in south frames. The soil must be made very firm, the surface coated thickly with coarse sand, and the cuttings inserted 3 inches apart each way. Close the lights, water to settle the soil at first, and syringe occasionally afterwards. Any borders that are now empty in the flower garden should be dug, and well-rotted manure put in if it is intended to plant spring-flowering plants and bulbs. If it is not convenient to put in plants and bulbs until several weeks later, no time must be lost in getting in the manure and thoroughly preparing the beds. During this week faded stems of plants must be cut and cleared from the herbaceous borders.

Vegetable Garden.—Since the middle of September the night temperature in many parts of the country has gone very low, in some cases below freezing point. At the present time we may have rather severe night frosts, such that will disfigure all exposed Cauliflowers. Some cultivators remove the soil from the north side of forward plants, then tilt over the latter, and place the soil removed on the stems and disturbed roots on the south side. This precaution, however, is only necessary in the case of Broccoli later in the season, when frosts are really severe and likely to be prolonged. The bending down of several large leaves, so that they will cover the Cauliflowers, is quite sufficient now. Continue to put out spring Cabbages while the weather is favourable. These are gross-feeding plants and must be grown in moderately rich soil. In very poor ground the plants grow hardily enough, but they are really too stunted to be profitable in spring. Fairly rich soil made very firm is the best. The firmness of the soil prevents the plants making sappy growth before spring, and when the ground is rich enough the spring growth of the plants is very free and the hearts are firm but tender.

Fruit Garden.—The work of thinning-out old Raspberry canes and those of young ones that are either too gross and sappy or too small to be useful must be done without any further delay now in cases where it has not already been attended to. Air, light and sunshine should have free access to all the canes retained for next year's cropping; then both canes and buds will mature. If the canes are overcrowded they cannot ripen, so that even good ones must be cut out in some instances. When the plants are grown in rows and trained to wires, each cane should be at least 6 inches from its neighbour. When grown in clumps, about five canes are sufficient to retain in each. Cordon fruit trees should be more extensively grown in small gardens than they are, as a greater variety can be cultivated. Prepare the soil for planting such in suitable quarters.

Greenhouse and Frames.—September has been a grand month for inserted cuttings of Zonal Pelargoniums and others of a succulent nature. There has been little loss among such in frames owing to damping. We may, however, reasonably expect fogs and a moister atmosphere generally to come now; and when there are many faded leaves on the cuttings they retain moisture and then contaminate sound leaves and stems. Thoroughly examine and remove all faded leaves, doing this without loosening the cuttings in the soil. Ventilate freely whenever the weather is bright and dry. In many instances Chrysanthemums will occupy all available spaces in the greenhouses now, and these structures must be both well ventilated and heated judiciously in order to prevent a stagnant atmosphere, which would be bad for the Chrysanthemum blooms and the regular occupants of such houses.

A. A.

SOME COMMON ENEMIES OF THE ROSE.

THE beginner in Rose-growing may at times become somewhat discouraged by the many insect and fungoid pests that he has to contend with; but, thanks to the painstaking researches of experts, remedies are now to be obtained that will enable us to bring these foes into subjection. Perhaps one of the worst enemies is

Mildew, which is known to most individuals, but not to all. It appears upon the foliage and the wood or shoots in the form of a whitish powdery looking substance, and is especially prominent towards the ends of the growths. Apart from its unsightly appearance, it is injurious to the Rose inasmuch as it prevents a healthy action of the leaves, which are the lungs of the plant. The reason why mildew is so prevalent in some seasons more than others is that the plant produces foliage during a warm, damp season which is "soft," and when in that condition it is susceptible to mildew. It may have been noticed by the novice that some varieties take mildew more readily than others. Crimson Rambler, Mrs. Sharman Crawford and Killarney being notable sorts; whereas such Roses as Mme. Antoine Mari, G. Nabonnand and Peace are unaffected. This is because the latter produce foliage which is "hard." A leaf attacked by this whitish looking, mould-like disease is shown in Fig. 1. Without going into the life-history of mildew, it will be sufficient to say that it may be cured by spraying the foliage early with a good fungicide. One of the best remedies is Cyllin Soft Soap, 10z. to a gallon of water. Another excellent article used by many noted amateurs is Cooper's V2 Fluid, sold by Messrs. Cooper and Nephew, Berkhamsted. Many users of this have been highly gratified with it this season. It is necessary to apply the remedy with a fine sprayer, the finer the better, and let the spraying be done early in the season, as soon as a spot or two of mildew is seen on the foliage or the wood. Continue to spray

2.—BLACK SPOT DISEASE ON ROSE LEAF.

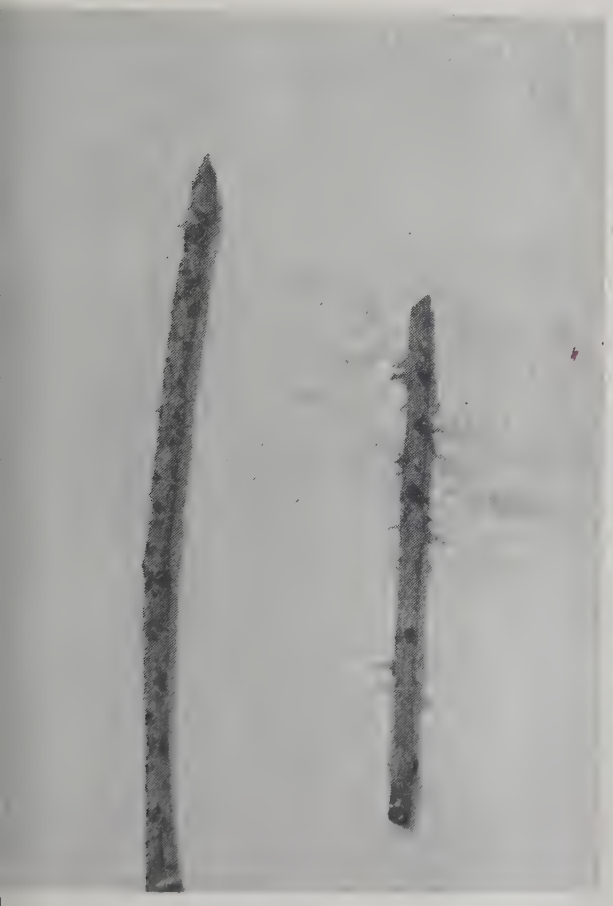
at intervals of a week or ten days. We not only spray to kill the mildew present, but also to coat the leaf with a preparation that will prevent the spores of the mildew taking root on the leaf. As new foliage appears this should also be sprayed. The same remedies may be used upon Roses grown under glass.

Black Spot is a very troublesome fungus, and has been especially prevalent this year. It does not

ppear to do any serious injury to the Roses, xcepting that it causes the foliage to fall prematurely, which, of course, cannot but be detrimental them. As a rule it is not much in evidence efore midsummer. It appears upon the leaves the form of large black or purplish spots, varying size and colour according to the texture of the af, an attacked specimen being shown in Fig. 2. good remedy for this disease is Woburn Bordeaux aste, applied with a sprayer. Commence in ring as soon as the Roses are pruned, spraying e wood and soil round about the bushes, and conue to spray at intervals of about two weeks. t this season of the year badly diseased leaves ould be removed, and pick up all that lie on the round, taking care to burn them. Where the disease as been very bad, skim off the surface soil and urn it. Black spot will appear upon indoor Roses hen the atmosphere is too moist. To counteract is there should be just a chink of air left on the p ventilators at night.

Orange Fungus, or Red Rust.—This will attack oth the foliage and the stems or shoots, pieces of ffected stems being shown in Fig. 3. It is a isease very prevalent upon hedgerow Briars, and will attack our Roses more during some seasons an others, and more violently in some districts an others. It is very partial to Hybrid Peretuals, so that when these are grown (and one annot yet do without this fragrant tribe) they ould, as far as possible, be grown by themselves. he rust on the leaves is usually in small patches, ut on the wood the clusters are often large, extendg to 1 inch in length, and often cause that part of e growth to become distorted. It is very necesry to collect all attacked leaves as they fall and urn them, and the surface soil should also be burnt, at is, within a circle of, say, 2 feet diameter round each plant. This should be done during e winter months. A good preventive is to eat with Woburn Bordeaux Paste, as recommended r black spot. Where the red rust occurs on the ood, paint with a solution of sulphide of otassium.

The Mason or Upholsterer Bee.—Often we may nd a plant or two with foliage cut about in a most ysterious manner. Large circular and semi-



3.—ORANGE RUST FUNGUS ON STEM OF BRIAR.

4.—THE WORK OF THE MASON BEE.

circular portions have been removed as with a knife or scissors, as shown in Fig. 4. If on a fine day in May or June one would stand by such bushes, they would see a pretty, small, wasp-like insect hovering over the plants, something like a hawk will over its prey. It will then make a dart to the leaf and commence sawing a large piece out of it, with which it will fly off to line its nest, this usually being situated underground, either in a pathway or some spot where the soil is hard enough for the purpose. The best method of dealing with this pest is to trace it to its nest, where a batch of young brood may also be destroyed; or, if a syringe is kept in readiness, the culprit may be brought to the ground and despatched.

Foliage Attacked by Thrips.—The foliage of Roses, especially of those growing against walls, may often be found mottled or marbled a dirty white, as shown in Fig. 5. This is caused by thrips and Rose leaf-hoppers. The former are small insects only one-twelfth of an inch long. The body of the adult is black and the legs pale. The female lays its eggs in the leaves, and the adults and larvæ feed upon the surface. The best treatment for both thrips and Rose leaf-hoppers (which are of a whitish colour) is to spray with Tobacco wash, made as follows: Tobacco, ½lb.; soft soap, 1lb.; and soft water, 12 gallons. Steep the Tobacco in water for some days, and then allow it to simmer over a fire for an hour. Pour off the liquid, well crush, and proceed again as before, adding the second extract to the first. This extract may then be mixed with the dissolved soft soap.

Green Fly, or Aphis.—This is prevalent in every garden more or less; but if the Rose plants are kept in a healthy, free-growing condition, green fly will not be very troublesome. It is a good plan to start spraying the plants quite early in the year, as soon as the new shoots have developed 1 inch or 2 inches in length. A good remedy for green fly is the Cyllin Soft Soap solution recommended for mildew; therefore, by using this article we have the double satisfaction of keeping in abeyance both pests. Copious syringing with plain water would be advisable where green fly has got a strong hold; then follow this next day with a spraying of Cyllin Soft Soap.

Rose Maggots are best exterminated by the thumb and finger. This, however, cannot always be done, and it is necessary to use some kind of wash. A very excellent remedy is Carlton Arsenate of Lead Paste. Use at the rate of ½lb. of paste to 25 gallons of water. Commence to spray in April, and continue at intervals of about two weeks until the end of June. The foliage is coated with a poisonous substance, which on being eaten by the maggots quickly despatches them. It requires to be used with great caution, but is an effectual remedy for those who are unable to attend to the hand-picking of the maggots. ROSARIAN.

THE TOWN GARDEN

PLANTING HERBACEOUS PHLOXES.—The remark that it has been a good Phlox year has been frequently heard during the past weeks, and has, moreover, been abundantly emphasised at all the leading exhibitions, whether in London or in the provinces. That the Phlox is a moisture-loving subject none will deny; but whether all of those to whom this good object-lesson has this year been revealed will remember the fact in times of drought is quite another matter. In any case those who would set about planting them at this seasonable time might bear it in mind, and, by arranging the surface of the bed below the ordinary level around, ensure that any supplies of moisture afforded the plants may be utilised for their benefit. Not only for good herbaceous plants, but for many others besides, the highly cushioned flower-bed is a delusion and a snare, a thing to be discouraged in the majority of circumstances. In the case of the Phloxes and other moisture-loving plants, the ideal bed should have its surface depressed or slightly sunken, so that the occasional waterings may be given to almost saturation point. The Phlox possesses a voracious appetite, and will ever repay for being well done.

A GOOD CULINARY PEA.—Mildew has been so very rife, even among the best culinary Peas, this season that it becomes a sort of duty as well as a

5.—ROSE LEAF DAMAGED BY THRIPS. THE WHITISH MARKINGS ON THE LEAVES ARE CAUSED BY THESE PESTS.

pleasure to make note of any variety that has come through this trying ordeal untouched. The variety I have in mind, and which gave splendid dishes into the third week of September—a final gathering was made on the 20th of that month—is Sutton's Peerless, a well-named variety of the highest merit. Peerless received a first-class certificate a few years ago, and it is first class all round.

COLCHICUM SPECIOSUM ALBUM, so finely exhibited by Messrs. Backhouse and Son recently, should, now that it is fairly cheap and plentiful, be finding its way into all those good gardens where the best hardy plants are grown. Its purity as well as its vigorous stature render it unique, the bold flower standing well above the ground, making a good display in the rock garden or in the herbaceous border. There are coloured forms, too, of this fine plant, the typical kind and its variety purpurea being the best for planting in near association. The autumn-flowering Crocuses and Cyclamen hederæfolium album are likewise good companions for the above, and the whole of them are very much at home among Ferns in cool and shady places.

PLANTING SNOWDROPS AND CHIONODOXAS.—In the interests of my readers and gardening in general it becomes a duty to urge the planting of all bulbous subjects, and those in particular whose vitality is quickly reduced, at the earliest possible moment. Those named, among others, very quickly lose vital force, and if kept out of the soil too long not infrequently perish outright when placed in contact with it. Snowdrops are such treasures in our gardens and of such easy cultivation, if taken in time, that one cannot but deplore their infrequency in many town gardens. Muscari conicum, also known as Heavenly Blue, is another plant to be early dealt with, more perhaps because of its inclination to be evergreen. It may not be strictly so, though its out-of-sight out-of-mind period when permanently planted is certainly not a long one. In spring its spires of rich deep blue are more than welcome, while its old-time fragrance, reminding one of Lad's Love and Wallflowers in mixture, is delightful in the extreme. It is a plant of great merit and charm, of greater value to the thousands who "garden" on a small scale because of a cheapness and a genialness that cannot be surpassed.

SPANISH IRISES.—Because of their indescribable delicacy and charm, Irises have been called the "Poor Man's Orchids"; and whether the phrase is apt or otherwise, there is in some of them a lustrous beauty which renders them quite unique. Moreover, they are easily grown and cheap. What more can the amateur in gardening desire? The section now referred to is of a bulbous nature, and the plants flower in June in the open garden. There are many shades of colour—blue, porcelain, white, yellow and bronze, all delightful in the garden or for cutting. Plant now in light, sandy soils.

E. H. JENKINS.

WINTER ROSES FOR MARKET AND HOME USE.

IT goes without saying, I think, that for market purposes the Rose is practically unique, though of recent years it may be said to have had a formidable rival, in point of utility at least, in the Perpetual-flowering Carnation. To some, of course, there would be no comparison, and, as a matter of fact, a Carnation has never displaced a Rose, and never could do. Hence the position is very much one of "as you were," the Rose remaining unique among the cut flowers of the year. It is not of the good attributes of the Rose as a flower, however, that I wish to speak, so much as its value as a cut flower during the winter season and those earlier months of the year when the conspicuous beauty and charm of the flowers make them the admired of all beholders.

In the intelligently forced Rose it is not merely the colour beauty which tells or a pronounced fragrance that attracts: there is ever present that indescribable something in the fresh, tender green of its leaves, or the enhanced beauty of the bronzy colouring with which some of the choicest Teas or Hybrid Teas are endowed, and which, in conjunction with a popular shade of colour or attractive form, place the Rose upon a pedestal of its own, a pedestal which year by year would appear to be in the ascendant, if we may judge of its popularity by an ever-increasing demand and by the eagerness of those best qualified to judge of the merits of any really meritorious addition to the ranks of good forcing Roses. To take a case in point, we have the pretty and useful Lady Hillingdon, which has created quite a furore during the present season. Not only is this a good addition to forcing Roses; it is also distinct in colour, of that apricot and buff yellow tone which, as yet, is perhaps unequalled. Then, of course, it is of the tapered bud class, a set which always finds admirers at a glance.

Here, perhaps, the question might reasonably be asked, "What are the essential properties of a good forcing Rose?" And the answer is not far to seek, seeing that probably not one in a hundred of those introduced can lay any sort of claim thereto. To force easy and well, a variety must be of a quickly responsive nature, answering promptly and well to artificial heat. The flower should be of a tapering character, thin and containing but few petals, the shorter-petalled, overcrowded flower, or that like La France, in which the great mass of petals overlap each other and go to form a conical-shaped bud, being quite unsuited to early forcing by artificial means. In short, it is the flower that in summer-time quickly flies open which makes a good forcer, the same having at times to take a back seat later in the year because of a trait which renders it valuable at other times. Mrs. W. J. Grant is a case in point of this, forcing well and selling well among the earliest varieties, but of little value later in the spring when the larger sorts begin to make their appearance. It is just possible, too, that a similar fate may await the new Lady Hillingdon, unless, indeed, it is spared this because of a colour shade which is by no means plentiful among Roses as yet. In the bud state or when slightly expanded Lady Hillingdon is a gem. In the fully opened flower its rounded petals rob it of all artistic merit, giving it a saucer-like rotundity of outline devoid of all charm.

Another good property of the forcing Rose concerns its long stem, and not less that excellent accompaniment of a short, stiff footstalk or peduncle. Liberty, Richmond and Mrs. John Laing all have self-supporting peduncles, which hold their flowers erect without support. La France, on the other hand, has not, and its long and thin footstalk is not equal to bearing the weight of its rather heavy flowers without supporting wires, which mar the good effect. Under the strain of forcing these long stems are unduly extended, and the weakness thereby occasioned, coupled with the leaflessness of the part, only increases the trouble. Then, of course, there is ever the question of colour, pink, white, yellow, crimson and scarlet being those most favoured. There are others certainly, as Mme. Abel Chatenay, of rosy peach and cream, and which, in conjunction with an artistic bearing, is practically unique. This fine variety, too, like those of true pink shades, has an enhanced value under artificial light, an item of considerable importance to the florist-decorator. Hence it will be seen that a good market Rose might be possessed of many attributes, and, needless to say, but few reach the hall-mark of excellence, much less is any variety endowed with all the possible attributes it might possess. In other words, the perfect flower or variety is not yet, hence the work of cross-breeding must go on.

There are, naturally, other phases of importance in the forcing Rose, such as freedom of flowering, some varieties, while ideal in other ways, being anything but this. Then for the cross-breeder there is work to be done in the raising of improved types of some of those already existing, as, *e.g.*, an improved Niphetos, which would be a great gain, a Niphetos, I mean, endowed with better shape and a more glistening purity, and a stouter, more vigorous footstalk. At the present time Niphetos, as for years past, holds a unique place; indeed, it is a Rose of great value, and grown probably by the million for the purpose we have in mind. It is, too, of a class which is endowed with much freedom and continuity of flowering, and any so-called improvements on it must not be lacking so valuable an asset. There is even greater room for improvement in the reds, especially among the Hybrid Perpetuals, but the improvements do not occur by leaps and bounds.

If we turn briefly to the cultural side of the question, we find that the older and more established examples in all classes are much the best for forcing, responding most quickly to artificial heat and giving the best-shaped blooms; that is to say, the amateur cannot pot up in the autumn ground plants of these Roses and expect to favourably compete with the specialist with his numbers of well-established plants. But he may, by purchasing pot-grown examples already established, do much in the direction indicated if he be an intelligent and studious cultivator of plants in general. Now and again we read of Rose plants becoming too old for forcing; but it will surprise some to know that the better and more refined blooms in nearly all classes are the product of quite old plants, plants that for a score of years have been grown for this particular purpose. Hence there is much to say for cultivation, and much more, perhaps, for the rational treatment at the back of it all.

To force a red Rose well the early treatment must be slow up to the breaking point and the forming of the bud, the opposite of this being doubtless responsible for much of the inferior colour and poor quality seen in our markets. Excess of stimulants, and indeed strong manures of all classes, is a great destroyer of colour, and a red Rose—a General Jacqueminot, for example—devoid of its characteristically rich intense colouring loses all its charm. In other words, it quickly descends to second or even third class quality.

In the winter forcing of Roses in England the operator is contesting against long odds, such as short and sunless days, for which no artificial heating can compensate. Hence he must go slowly, and for the time being possess his soul in patience. Teas and Hybrid Teas are quite safe in a temperature not exceeding 55°, the Hybrid Perpetual class being safer in a temperature 10° less. It is not safe, however, to lay down rule-of-thumb methods as to this, the state of the plants and the weather requiring consideration, while the behaviour of his plants in past years will ever afford the best guide to the worker.

The following are some of the best varieties for early forcing and winter work, though their more or less representative character will always depend upon the intelligence of the man at the wheel: Niphetos, Mme. Abel Chatenay, Liberty, Richmond, Lady Hillingdon, Joseph Lowe, General

cqueminot, Captain Hayward, Mrs. W. J. rant, Mrs. J. Laing, The Bride and Bridesmaid. iite recently I noted Fisher Holmes recommended a contemporary for this very purpose. It is e of the most unsuitable, a short-petalled, over-ll, sluggish, unresponsive variety, minus freedom, at all who delight to have a good, shapely Rose winter-time should studiously avoid. E. J. H.

NEW PLANTS.

PRIPEDIUM SHOGUN.—The parentage of this fine riety is unknown. The dorsal petal is of fine oad proportions, having a green-yellow ground loured heavily blotched maroon and broadly rgined with white. The slightly undulated pals are of bronzy green tone in the main. Ex-bited by Sir George Holford, K.C.V.O., Weston-rt. First-class certificate.

Lælia De Gusteana Thompsonii (L. jongheana × flava).—The sepals and petals of this distinct velty are milk white, the waved lip of a h golden yellow colour constituting a fine con-ast. A small plant only was shown, but this s handsome and striking in appearance. Ex-bited by W. Thompson, Esq., Walton Grange, one. Award of merit.

Cattleya Duce magnifica (C. Vulcan × C. gigas). very handsome variety with clear rosy sepals d petals, the heavily tasselled lip being of crimson-rple shade. From Sir George Holford, K.C.V.O., estonbirt. Award of merit.

Cattleya Lengæ (C. Enid × C. dowiana Rosita).—extra fine variety in which the sepals are of y pink shade, the waved lip being coloured mson-purple in the lower half, with veinings and iculations of yellow in the tube. The column is rly pure white, and in fine contrast with the rest the flower. From Messrs. Charlesworth and , Hayward's Heath. Award of merit.

Phaius Cooperi.—A strangely beautiful and turesque—we had almost written grotesque—cies, and a novelty whose mahogany crimson urned sepals render it very distinct. The ted lip is white with a suffusion of rose and low. From Messrs. Sander and Sons, St. Albans. ard of merit.

Viburnum Henryii.—A new, handsome, distinct d perfectly hardy species from China that omises to become quite an acquisition. The hibited tub-grown example was about 4½ feet h—the species in Nature reaches the dimensions a small tree some 15 feet to 20 feet high—of sely bushy growth and crowded with its huge ymb-like clusters of scarlet and black fruits, d bids fair to create a new feature in the glish landscape. The leaves in youth are lined to be fleshy and slightly channelled; older leaves are flat, 1 inch broad, 6 inches or re in length, firm in texture, and almost ny at their margins. The growth is free and od, of a lustrous green in youth that occasionally umes a slight bronzy tint. Exhibited by Messrs. nes Veitch and Sons, Limited, Chelsea. First-ss certificate.

The following each received an award of merit:

Lobelia cardinalis Gloire de St. Anne's.—A tall-wing, brilliantly flowered variety, the result of ssing Firefly and Lord Ardilaun. The green ves are long and lanceolate, the stems covered h a soft down-like tomentum. From Lady dilaun, Clontarf, County Dublin.

Dahlia Flagstaff (Cactus).—The groundwork is low, the florets pinkish with mauve tips. From ssrs. J. Stredwick and Son, St. Leonards.

Carnation Lady Alington.—A very handsome iety of the Perpetual-flowering class. The wers are full, of good shape, and coloured a warm pink. It is one of the most deliciously fragrant we have met. From Messrs. Stuart Low and Co., Enfield.

Phlox Ellen Willmott.—Quite a novelty among the coloured Phloxes, the pale mauve or French grey tone being almost uniform throughout the flower. It is a most effective variety. From Messrs. Gunn and Son, Olton, near Birmingham.

Aster Peggy Ballard.—We might almost describe this as a free-growing, miniature-flowered form of Beauty of Colwall, the more densely formed bushes being laden with violet-mauve flowers. From Mr. Ernest Ballard, Colwall.

Rose Mrs. Herbert Stevens (T.).—A most elegantly formed variety, having long, shapely flowers of nearly pure white colour.

Rose Dorothy Ratcliffe (H.T.).—Similar to a pale-coloured Lyon Rose, though there is a suspicion of pink colour also. The well-cupped flower is very handsome.

Rose Ethel Malcolm (H.T.).—A fine blush pink variety of exceptional size and good form. This set of new Roses came from Messrs. S. McGredy and Son, Portadown, Ireland.

Chrysanthemum Hollicot Pearl White.—A handsome flower with incurving florets.

Chrysanthemum Hollicot Golden.—A richly coloured flower of golden yellow.

Chrysanthemum Betty Spark.—The colour is pink, the flower of good symmetry and size. These were exhibited by Mr. W. Roots, Cranford.

Solidago spectabilis.—A variety of merit growing not more than 2½ feet high and having dull golden-coloured flowers in erect pyramidal panicles. From Messrs. George Paul and Sons, Old Nurseries, Cheshunt.

All the foregoing were shown before the Royal Horticultural Society on the 27th ult., when the awards were made. The committee of the National Dahlia Society also met on the same date and granted first-class certificates to the following: Pompon Dahlia The Moor, rich maroon, from Mr. Mortimer, Farnham; Decorative Cactus Dahlia Loveliness, from Mr. Turner, already described in our columns; Cactus Dahlia Kingfisher, deep mauve; and Cactus Dahlia Golden Eagle, fawn and yellow, from Messrs. J. Stredwick and Sons.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Violet Princess of Wales (*Miss M. C. Moore*).—The small-petalled or apetalous flowers are common to all the forms of Viola odorata. They are known to science as cleistogamous, and are really the great seed producers of their race. Usually, the large-petalled flowers—those we gather and use for personal adornment—are first produced and yield little or no seed, the apetalous flowers which appear later being most prolific. If, in your case—the plants being grown for their flowers and not for seed—the above order is reversed, you will have to remove the apetalous flowers by hand-picking or with a pair of scissors. The process of production is, however, a perfectly natural one, and need cause you no anxiety unless for some unknown reason the small-petalled flowers are greatly in excess of the others.

Lifting Begonias (*A. Gin*).—You will do no harm to the Begonias by lifting them early in October if you at once heel them in the soil so that their maturing is rendered more gradual. To lift and dry them off at once when in the fulness of leaf-growth and sap would be highly detrimental to them. For destroying weeds on the lawn you might use Lawn Sand, as advertised, and for encouraging the growth of the grass, nitrate of soda, very finely pulverised, would be best. Seeds may be sown now or in March and April, and if good grass seeds, obtainable from a reliable source, growth would soon follow. The nitrate would be better if mixed with twice or thrice it bulk of fine soil before sowing it thinly on the lawn. You might also give a further dressing of this in spring. We do not remember anything having creamy flowers suitable for your purpose, though Helenium pumilum is a good yellow-flowered plant and very profuse. Is it possible that a pale yellow Eschscholtzia would be suitable? This and primrose yellow Antirrhinums would, however, have to be in their positions months ahead of the time you have in mind. The Helenium, too, is of a permanent character.

ROSE GARDEN.

Dark red Roses for beds (*Miss A. C.*).—There is not at present a large choice of Roses of dark red colour suitable for bedding, especially when a stipulation is that they should possess large blooms. You should certainly include General Macarthur for one, and you cannot well omit Liberty, although it is not quite so vigorous as one would like. Chateau de Clos Vougeot is excellent, especially if its somewhat spreading shoots are tied upright; and in Laurent Carle we have a fine, brilliant carmine Rose that yields splendid, large flowers. When the new Roses Leslie Holland, H. V. Machin and Edward Mawley are on the market we shall have some excellent deep-coloured Hybrid Teas that will be extremely useful as bedding kinds. One cannot well recommend Hybrid Perpetuals for bedding, for they are not free enough in their blooming in the autumn; otherwise we could name several fine dark Roses. Perhaps Louis van Houtte and Victor Hugo are exceptions to this, for they are both splendid dark-coloured sorts and fairly free in autumn. A good pale lemon-coloured Rose would be Mme. Hoste or Marie van Houtte, but you should not miss an opportunity for planting Melanie Soupert, one of the loveliest Roses of recent years, with huge blooms of a salmon yellow shade.

Spraying for red rust and black spot (*Dix*).—We would not advise you to spray the recently budded stocks, but you could paint over the red rust where it has attacked the branches of the Briars with equal quantities of methylated spirit and water. It is advisable to remove the foliage where badly affected with black spot and burn it, and also the fallen leaves should be destroyed. The soil about the trees should be skimmed off in winter and also burnt, as it contains the winter spores. These latter are not formed on the wood. Another season commence to spray early in the spring with Woburn Bordeaux Paste, and continue this during the summer and autumn. You might also spray the bushes now. It will be beneficial in arresting some of the disease.

Pruning Roses Dorothy Perkins and Lady Gay (*Rathmore*).—These wichuraiana Roses, unlike the Crimson Rambler or multiflora tribe, do not require the old wood to be removed every year, providing the plants are not too much crowded. When this is the case, then a long growth or two may be removed now. The old growths of these Roses continue in a healthy state for a much longer period, and are good for at least three or four years. Spread out these main shoots all you can, and in March cut back hard the lateral or side growths, even to within 1 inch or 2 inches of their base. This will induce the plants to flower if anything will. You might remove about 1 inch of the points of the side shoots at once. This would tend to harden them for flowering better next year. The thick shoots coming up from the base may have to be cut back, as they cannot ripen this season now; but do not do this until spring.

TREES AND SHRUBS.

Plants for large lawn bed (*J. V. M.*).—We do not advise you to plant either Clematis or Virginia Creeper in companionship with Roses in the bed you describe. This would look much better planted with Roses alone. If you plant rampant-growing sorts like the wichuraiana, Dorothy Perkins, Hiawatha, Alberic Barbier, Edmond Proust, &c., you will find that they will quickly cover all the space at your disposal. Should you wish for a mixture of plants, we advise you to plant Wistaria multijuga and W. multijuga alba to cover the connecting ties at the top, and multiflora Roses of the Crimson Rambler, Helene, Tea Rambler, Electra and Philadelphia Rambler types to clothe the posts. The following Hybrid Tea Roses will be likely to thrive with you: Caroline Testout, Grace Darling, Bessie Brown, Albert Stopford, Clara Watson, Countess of Derby, Dean Hole, Dorothy, Earl of Warwick, E. T. Cook, Gustave Regis, Grüss an Teplitz, La France, J. B. Clark, Lady Ashtown, Lady Battersea, Lady Mary Fitzwilliam, Liberty, Mme. Ravary, Marquise de Salisbury and Viscountess Folkestone.

Climbers for north wall (*H.*).—The following climbers would all grow satisfactorily on a north wall: Hydrangea petiolaris, self-clinging; Ampelopsis Veitchii, self-clinging; Clematis Viticella; and C. Jackmanii. We advise you to try the first-mentioned plant. Your Clematis montana may be pruned fairly hard back in June as soon as the flowers have fallen. To get it to break evenly from the bottom, some of the lower branches ought to be trained horizontally. There is, however, always a tendency for it to become bare at the bottom, and it is very rarely that one meets with a specimen which is as well clothed with branches at the bottom as it is at the top, or that blossoms as well about the lower as it does about the upper parts.

Treatment of Eucalyptus seedlings (*L. B. W.*).—Eucalyptus resinifera is likely to be as hardy as the majority of the species. It would be advisable to keep the plants in a cold frame for the winter and plant them out next spring. They will then have a good opportunity of becoming well established before another winter sets in; whereas, if they are planted now, they will not be in a very good condition to face a sudden sharp frost. When you plant them shake the roots free of the soil and spread them out nicely in the hole, for if planted straight from the pot without disentangling, the roots do not support the trees against wind so well. A very good Red Currant is to be found in the variety Comet. Rene André and Robert Craig are good yellow wichuraiana Roses. We have not had sufficient experience of Aviateur Blériot as yet to be able to say how it is likely to turn out.

FRUIT GARDEN.

Apple foliage and branches diseased (*Herbert Goodchild*).—Your tree is suffering from what is commonly known as scab or black spot fungus (Fusicladium dentriticum). If there is no fruit on the tree, spray it all over carefully with the Bordeaux liquid mixture, which can be had from all seed merchants or garden sundriesmen advertising with us, with directions as to its use. If there is any fruit of value on the tree, it must not be sprayed until the fruit is gathered. Collect all the leaves as they fall and burn. Wash again with the same mixture in November, and again in spring just as the buds are starting into growth, and we hope you will effectually get rid of it. In addition to this you should take away the surface soil over the roots as far as they extend to the depth of 3 inches, and substitute for it a top-dressing of loam, adding to a barrow-load of the loam a gallon of bone-dust and a couple of pecks of rotten manure, pressing it down hard when applied. This should be done as soon as the leaves have fallen.

Grafting Black Hamburgh Grape on Muscat Hamburgh stock (*G. H.*).—It is well known among Grape-growers that the Muscat Hamburgh Grape succeeds best when grown on the Black Hamburgh stock, and some nurserymen provide themselves with young canes of this variety worked in this way. Perhaps your Vines have been similarly worked; if so, the stock, of course, will be all right. But, supposing the Vines in question are on their own roots, we should not hesitate to work the Black Hamburgh on to the stock of Muscat Hamburgh were one situated in the same way. The constitution of this Black Muscat is fairly vigorous, and there is no cause for complaint from this standpoint; but the great trouble with it is that it does not always set well, and that it shanks badly and will not keep for any length of time. We should expect the Black Hamburghs to be improved in richness of flavour by the change of stock.

Peach and Nectarine fruit diseased (*C. C.*).—We believe that the disease has been caused, in the first instance, by a puncture of the skin by a blow-fly or some other insect, followed by corruption of the flesh of the fruit round the part so injured. We have never known a fungus to attack the fruit of the Peach in this way, but we have often seen the same result follow from the attack of this fly, a wasp, or by injury to the skin from some other cause.

The origin of the Peach and Nectarine (*Ignoramus*).—The Peach and Nectarine are said to have been introduced and first cultivated in this country about the middle of the sixteenth century. The Peach is generally supposed to be a native of Persia, but De Candolle in his "L'Origine des Plantes Cultivees" considers it to be a native of China. Like produces like, and the stone (or seed) of a Peach will produce a Peach, but not necessarily the same variety as the parent.

Grapes diseased (*W. Dawson*).—Your Grapes are affected by a malady known as scalding. This variety of Grape (Lady Downe's) is specially subject to attacks by it. The attack is usually caused by bright sunshine striking on the vinery in the early morning before any, or adequate, ventilation has taken place while the atmosphere of the vinery, the leaves and Grapes of the Vine are heavily saturated with the condensed moisture of the night. The mischief always happens during the stoning period and about the time the Grapes are colouring. The way to prevent an attack is to slightly increase the warmth of the hot-water pipes during this period. This will admit of a free circulation of air (a little at night as well) without the temperature of the vinery being lowered too much, and will do away effectually with the condensed moisture spoken of above. The disease will not affect next year's crop if the above precautions are observed.

THE FIRST AND SECOND PRIZE EXHIBITS IN THE PREMIER CLASS FOR TWELVE KINDS OF VEGETABLES. (*See page* 507.)

Peach to name (*W. H. K. H.*).—On unpacking we are sorry to say that the fruit was quite unrecognisable by reason of its squashy and decayed condition. Please send another sample, but not so ripe, and we shall be pleased to name it for you.

Grapes gone wrong (*Amateur, Wimbledon*).—The Grapes are rotting because they are too thick and close together in the bunch. Thin out all the bad ones by cutting them away with a pair of Grape scissors, and some of the smallest of the healthy ones as well, until there is at least a quarter of an inch distance between berry and berry all over the bunch.

Nectarine stone splitting (*W. P.*).—We think from the fruits sent that the injury is caused by imperfect setting, and not so much by the roots being in any way at fault. We would, as the trees are old, advise you at the flowering period next season to give those that are affected in this way more ventilation, and, if possible, during the setting use the pollen from another variety that is quite free from the evil referred to.

Peach foliage damaged (*Mrs. C. Smith*).—Your Peach tree is suffering from an attack of a fungus commonly called the shot hole fungus. It usually confines its depredations to the Peach and the Plum. Your best plan to get rid of it now will be to dredge your tree thickly over with flowers of sulphur early in the morning when saturated with dew. The sulphur will then cling to the tree. It may be syringed off after the lapse of three or four days, but will not hurt the tree if allowed to stay on longer.

Currant leaves diseased (*H. B.*).—The Currant is attacked by the destructive fungus Glocosporium ribis. The leaves affected usually fall, and should be raked up and burned, as it is on the fallen leaves that the fungus passes the winter. The bushes should be sprayed with a solution of potassium sulphide at the rate of 1oz. to three gallons of water, or with dilute Bordeaux Mixture. Another year it would be well to start spraying before the disease makes its appearance and as soon as the berries are picked.

Peach Alexandra splitting (*F. W. D.*).—The splitting is the result of a disease in the stone. On examining split Peaches you will find that the stones are always more or less decayed, and the variety Alexandra suffers from this complaint to perhaps a greater extent than any other sort. We think it is caused by imperfect fertilisation of the blossom, either through the absence of sufficient pollen or in consequence of its weak condition. The best way of preventing its recurrence is by artificially fertilising the flowers with the pollen of another variety which may be in bloom at the same time, or, in the absence of this, by its own pollen.

Information about Strawberry plants (*J. S.*). The best thing for you to do, we think, will be to trench and manure liberally a plot of fresh ground (the size you wish your bed to be) as soon as possible and plant it with the best rooted young runners you can find round the old plants. These would give you a few fine fruits next year and a heavy crop during the two following years. As regards the old plants, get a large-bladed knife and cut away every runner from each plant and also many of the old, rusty, bottom leaves. Clear them all away and burn them. Then have the rows between the plants thoroughly hoed over with a draw hoe, destroying all weeds or any other growth there may be on the ground, raking and wheeling it away. Afterwards place a dressing, 3 inches deep, of good farmyard manure between the rows, covering the whole of the ground, and you should have good results next year.

KITCHEN GARDEN.

Neglected Asparagus-bed (*K. M.*).—All you can do to your bed at present is to keep it clear of weeds, and if there are any bare spaces without roots in the bed, place a stake in each one, so that a new two year old root may be planted in each bare space at the end of March next year. The roots should be about 15 inches apart in the bed. This will give you a good idea whether there are many bare spaces without roots or not. The grass should be cut off as soon as it is dead, and a covering of well-decayed manure laid over the surface of the bed 3 inches deep. The goodness of this will be washed down to the roots by rain during winter.

Box edging in kitchen garden (*D. Y. H.*).—In common with all live edgings, the Box offers a certain harbour for slugs, but it is not in other respects attractive to them. A dusting of quicklime in the neighbourhood of the Box edging, but not thereon, or of wood-ashes all over, will tend to keep the slugs at bay. Besides these there are many articles sold for the destruction of slugs which do their work effectually. We never knew Box edging to harbour mice, as these little pests seek a safer shelter. As a substitute for Box in the kitchen garden the white Pink and the common Thrift are often used. These serve as a shelter to slugs quite as much, if not more, than the Box.

MISCELLANEOUS.

To improve sandy soil (*P. M.*).—To one barrow-load of leaf-soil add a peck of the powdered chalk and half a peck of wood-ashes, mix together, and spread over the ground half an inch deep, and dig into it 1 foot deep. Notwithstanding Mr. Morgan's advice to the contrary, we would strongly advise you to dig into your poor sandy soil in winter a liberal quantity of fairly rotten farmyard manure. This contains in well-balanced quantities all the fertilising agents required for the food of plants. As regards the use of fertilisers such as superphosphates, nitrates and potash, it is difficult to over-rate their value when judiciously used in the growth of fruit and vegetables. Vegetable refuse such as Broccoli, Cabbage and other decaying leafage may be dug into the ground in a green stage at any time of the year with advantage, so long as it is buried deep enough, say, 2 feet at the bottom of a trench. It soon rots and becomes incorporated with the soil, adding in time much useful humus. Powdered stone has no manurial value, and is chiefly valuable in increasing the porosity of heavy and badly drained soil.

Horticultural instruction for ladies (*A. S.*). You had better write to the superintendent of the Ladies' Horticultural College, Studley Castle, Redditch, for information as to the conditions on which students in gardening there are received. Whether examinations are compulsory or not we do not know, but in most of these institutions examinations are held, as constituting the chief test of a student's knowledge. There are some fifty female students there now, and it is purposed to largely increase them. You can also, if you prefer, write to the Principal of University College, Reading, where there are many lady students in gardening; also to Miss Wilkinson, Principal of the Ladies' Horticultural College, Swanley, Kent. There are, we believe, other gardening schools for ladies, but not all are known, still less their conditions as to fees or examinations.

THE FIRST-PRIZE EXHIBIT IN "COUNTRY LIFE" CLASS FOR RARE OR LITTLE-KNOWN VEGETABLES.

Diseased Mallow plant (*D. Thomas*).—The Mallow (Lavatera) is attacked by a fungus. All diseased plants should be removed, and the remainder sprayed with Bordeaux mixture so as to prevent the spread of the trouble. Can you send us examples of the Mignonette and Pansies which you say are failing? The soil you send appears to be fairly good fibrous loam, which should grow most kinds of plants, though probably the addition of some basic slag in the autumn would improve it. It is not sour now, but if there is no lime in the soil, the addition of some would be an advantage.

Azalea shoots for inspection (*C. F. K.*).—Judging from the enclosed shoots, the plants of Azalea are not dying, but absolutely dead. They have been attacked with red spider and thrips, sufficient, in fact, to kill them, while their death may have been hastened by the attempt to destroy these pests. It is, however, quite probable that the primary cause of all the trouble is the plants being allowed to fall into ill-health, and when in this state parasites quickly attack them and increase more rapidly than in the case of healthy subjects. We should be quite prepared to find the roots of your plants in such a bad state that the only thing to do is to throw away the plants. Once they fall into ill-health Azaleas are extremely difficult subjects to restore to their normal condition, and we fear that yours are much too far gone to revive. For their successful culture Indian Azaleas require the temperature of a greenhouse, though they may with advantage be stood out of doors in the summer months. A dry atmosphere is very unfavourable to Azaleas and greatly encourages the production of insect pests. Apart from other matters, we should say your plants have been kept too dry, especially atmospherically; but as you give us no idea of the treatment they have received, we can say nothing further.

SOCIETIES.

NATIONAL VEGETABLE SOCIETY.

THE first exhibition of this newly formed society was held in the Royal Horticultural Hall, Westminster, on the 28th ult., and whether viewed from the standpoint of quality or extent, cannot but be pronounced an unqualified success. It is in these circumstances that the promoters have every reason to be satisfied—if not, indeed, proud—of their venture, which, even in these days when special societies are numerous, clearly demonstrates that a need for such a society existed, and that its coming has supplied that need. That the exhibition created a wide-spread interest the detailed report which we give to-day will, we imagine, make abundantly clear.

In the premier class, for twelve kinds of vegetables, open to all, the first prize was won by His Grace the Duke of Portland, Welbeck Abbey, Worksop (gardener, Mr. J. Gibson), who exhibited superb Cauliflower Autumn Mammoth, Tender and True Parsnips, Pea Duke of Albany, Brussels Sprouts Sutton's Dwarf Gem, Superlative Potato, Prizetaker Leek, Perfection Tomato, New Red Intermediate Carrot, Ailsa Craig Onion, Best of All Runner Beans and Superb Pink Celery; second, Mr. J. Hudson, Gimson Road, Leicester, who had Satisfaction Potato, Ailsa Craig Onion, A1 Tomato, Autumn Mammoth Cauliflower, Prizetaker Leek, Gladstone Pea and Prizewinner Bean in a fine lot (see illustration on page 506); third, Mr. W. G. Lobjoit, Heston Farm, Hounslow, with produce not of high excellence. There were four competitors in this class.

In Class 2, open only to those working small holdings not exceeding 20 acres in extent or less than 2 acres, for the best six kinds of vegetables packed in peck baskets for market, the first prize went to Mr. T. King, New Road, Bromham, Chippenham, who had Potatoes, Onions, Carrots, Turnips, Runner Beans and Cauliflowers of much merit; second, Mr. A. E. Forth, market gardener, Bishopsthorpe, who staged Runner Beans, Carrots, Potatoes, Turnips and Peas.

In a similar class, for the best six kinds of vegetables or salads packed in small crates or baskets for market, Mr. T. King was again first, his Potatoes, Carrots, Turnips and Onions being of good quality; second, Mr. H. G. Marshall, High Street, Market Deeping. Generally speaking, there was ample room in this class for improvement in the methods adopted for packing, the latter being somewhat conspicuously absent.

For nine dishes of vegetables, distinct, open to all who were not competing in Class 1, H. J. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. Gaiger), was first, staging superb examples of Thick-fleshed Tomato, Ailsa Craig Onion, Pea Gladstone, New Intermediate Carrot, Prizetaker Leek, Autumn Mammoth Cauliflower, Solid Pink Celery, Best of All Runner Bean and Up-to-date Potato; second, Mr. Silas Cole, gardener to Earl Spencer, Althorp Park, Northampton, who had unnamed examples of Onions, Carrots, Parsnips, Beet, Leeks, Cauliflowers, Potatoes and Tomatoes of much excellence; third, Mr. T. Avery, gardener to J. Kerr, Esq., Loudwater, Rickmansworth, whose Moneymaker Tomato, Exhibition Runner Bean, Premier Onion and Cauliflowers were very fine. There were six competitors.

In the *Country Life* class (prizes offered by the Proprietors of *Country Life* and THE GARDEN), for a collection of eight dishes of vegetables, distinct, to be selected from a given list of rare or little-known vegetables, the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), was first, the 6-feet long Cardoon Large Solid being a centre of attraction. Turnip-rooted Celery, Maize or Sugar Corn, Golden Ball Turnip, Portugal Cabbage, Giant Salsify and Seakale Beet were all notably good in this lot. (See illustration.) The second prize was won by Mr. W. Folkes, Ampthill, Bedfordshire, whose examples of Golden Ball Turnip and Celeriac were very good; third, Mr. W. G. Lobjoit, Heston Farm, Hounslow, who staged very good produce. There were six competitors.

For a collection of six dishes of Tomatoes, distinct, open to all, His Grace the Duke of Wellington, Strathfieldsaye, Mortimer (gardener, Mr. A. G. Nichols), was a good first, having fine dishes of Princess of Wales, Satisfaction, Eclipse, A1, Magnum Bonum and Winter Beauty; second, Mr. J. Hudson, Gimson Road, Leicester, his Hillside Comet, Kenilworth Castle, Moneymaker, A1, Sunrise and Just the Thing being extra good; third, the Hon. Vicary

Gibbs, Aldenham House, Elstree (gardener, Mr. Beckett). The prizes in this class were offered by Mr. G. Monro. There were four competitors.

In Class 7, for six dishes of Potatoes, distinct, nine tubers of each, open to all, His Grace the Duke of Portland, Welbeck Abbey, Worksop (gardener, Mr. J. Gibson), was first, the dishes of Superlative, Supreme, Ideal, King Edward VII., Windsor Castle and White City being superb; second, Mr. J. Hudson, Leicester, with King Edward VII., Satisfaction, Provost, The Factor, British Queen and Duchess of Cornwall; third, Mr. Silas Cole, gardener to Earl Spencer, Althorp Park, Northampton, who had very fine though unnamed produce. There were sixteen competitors in this class, the exhibits being of much excellence throughout. Prizes in this class were offered by Messrs. Clay and Sons.

For a collection of vegetables, any kinds or varieties, to fill a table space 15 feet by 5 feet, and to be grown with the aid of Messrs. Wood and Son's various manures, in private gardens, the first prize of 10 guineas was won by the Hon. Vicary Gibbs (gardener, Mr. E. Beckett), whose collection contained some seven or eight dozen dishes, a group which for high cultural excellence and good taste in arrangement it would be difficult to surpass. It is impossible in a collection of this magnitude to give the dishes in detail; suffice to say they were of Mr. Beckett's usual standard of quality throughout.

For six dishes of vegetables, exhibited by the competitor where there are not more than six gardeners engaged, including the head-gardener, prizes also offered by Messrs. Wood, Mr. G. Hobday, Havering Road, Romford, was first, whose unnamed Potatoes, Onions, Carrots and Celery were of high quality; second, the Right Hon. T. F. Halsey, Gaddesden Place, Hemel Hempstead (gardener, Mr. H. Folkes), whose Potatoes, Onions and Cauliflowers were of much merit; third, Miss Langworthy, Holyport, Maidenhead (gardener, Mr. T. J. Brown).

In the chairman's class, open only to cottage garden societies in the County of Surrey which have their gardens and allotments judged by the county horticultural experts, for six dishes of vegetables, distinct kinds, quantities to be as customary in the local exhibitions, the South Park and Sidlow Cottage Garden Society were the champions, their contribution of Beans, Potatoes, Peas, Onions and Cauliflowers being very good; second, Beddington, Carshalton and Wallington Horticultural Society, with very good produce; third, Ashtead Horticultural Society, whose Runner Beans and Cauliflowers were excellent. There were five collections staged in this interesting competition.

In Class 11, for twelve distinct kinds of vegetables, first went to Mr. Silas Cole, gardener to Earl Spencer, Althorp Park, Northampton, whose splendid lot contained Autumn Giant Cauliflowers, Hollow Crown Parsnips, Ailsa Craig Onions, Intermediate Carrots, Wroxton Sprouts and Clayworth Prize Celery; second, the Rev. O. Turner, Woburn Park, Weybridge (gardener, Mr. A. Basile), whose Gladstone Peas, Ne Plus Ultra Runner Beans, Autumn Giant Cauliflower and Perfection Tomato were very good; third, Mr. W. Folkes, Ampthill, Beds, whose Duke of Albany Peas were probably the finest in the show; fourth, Mr. R. H. Sing, The Braes, Berkhamsted (gardener, Mr. D. W. Bedford).

For six distinct kinds of vegetables, Mr. T. Jones, Ruabon, was first, staging excellent Celery, Carrots, Onions, Beans and Potatoes; second, Mr. E. Deakin, Hay Hall, King's Road, Birmingham, Potato The Factor being one of the best items. The prizes in the two foregoing classes were offered by Robert Sydenham, Limited, Tenby Street, Birmingham.

For two dishes of Potatoes, eight tubers in each dish, selected from the following—Dobbie's Favourite, The Factor, Talisman, The Chapman, The Admiral and The Provost—Mr. J. Hudson, Leicester, was first with The Provost (white round) and The Admiral (white round), both being exceptionally good; second, Mr. H. Wells, Mount Street, Lincoln, who staged The Factor and The Provost; third, Mrs. Dennison, Little Gaddesden, with The Factor and The Provost. This was a splendid class throughout, fifty-one competitors bringing of their best.

For six Dobbie's International Prize Leeks, first prize went to Mr. Thomas Hetherington, Fourstones, Northumberland, with magnificent produce; second, Mr. R. W. Davidson, The Portico, Morpeth; third, Mr. Jonathan Lowe, Fourstones, Northumberland. There were forty-two competitors, most of whom brought excellent material.

For six Dobbie's New Purple Beet, Mrs. Dennison, Little Gaddesden, Berkhamsted (gardener, Mr. A. G. Gentle), was first; second, Mr. R. H. Thompson, Little Haywood, Staffs; third, Mr. M. Bastard, Southsea; fourth, C. F. Raphael, Esq., Shenley.

Six Dobbie's Golden Globe Onion: First, Mrs. Dennison, Little Gaddesden; second, Mr. T. Jones, Ruabon; third, Mr. R. G. Lightfoot, Little Haywood, near Stafford. The produce was excellent.

Six Dobbie's Selected Parsnip: First, Mrs. Dennison, Little Gaddesden (gardener, Mr. Gentle); second, the Right Hon. Lord Curzon, Hackwood Park, Basingstoke; third, C. F. Raphael, Esq., Shenley; fourth, Mr. T. White, Bampton, Oxon. There were thirty-nine competitors, some of whom brought 3-feet long examples of this useful vegetable.

Six Dobbie's Golden Ball Turnip: First, Mr. T. Anthony, Lea Rig, Broxburn; second, Mr. E. Mosley, Crosshills, near Keighley, Yorks; third, Mr. T. Anderson, Darvel, Ayr; fourth, Mr. R. Thomson, Stonehouse, Lanark. There were nearly fifty competitors.

Six Dobbie's Model White Turnip: First, Mr. T. Anthony Lea Rig, Broxburn; second, Mr. W. Coleman, 4, Hunter Road, Buckingham; third, Mr. R. G. Lightfoot, Little Haywood, near Stafford. There were fifty-one competitors. The prizes in the foregoing classes were offered by Messrs. Dobbie and Co., Edinburgh.

Two bunches of Dickson and Robinson's Moneymaker Tomato: First, Mr. T. Abbott, The Gardens, The Holme, Regent's Park; second, His Grace the Duke of Newcastle, Clumber, Worksop.

Six Onions, Dickson and Robinson's Premier: First, the Right Hon. Lord Curzon; second, Mr. T. Jones, Ruabon; third, Mr. A. Searle, Castle Ashby, Northampton.

For a dish of Dickson and Robinson's Hercules Pea, thirty pods, C. F. Raphael, Esq., was first; second, R. H. Comyns, Esq., Heath Farm House, Watford; third, M. Glyn, Esq., Albury Hall, Hadham.

Six Leeks, Dickson and Robinson's Exhibition: First, C. F. Raphael, Esq., Shenley; second, the Right Hon. T. J. Halsey, Hemel Hempstead; third, Mr. A. Searle, Castle Ashby, Northampton.

Six Carrots, Dickson and Robinson's Scarlet Perfection or Matchless: First, His Grace the Duke of Newcastle, Clumber, Worksop; second, Mr. Silas Cole, gardener to Earl Spencer, Althorp Park, Northampton; third, Mr. W. Folkes, Ampthill, Beds.

Six heads of Celery, Dickson and Robinson's Prize Pink: First, Mr. A. Searle, Castle Ashby, Northampton; second, C. F. Raphael, Esq., Shenley; third, Mr. T. Jones, Ruabon. There were six competitors, the exhibits being of good quality.

Six Beet, Dickson and Robinson's Market Favourite; First, R. H. Comyns, Esq., Heath Farm House, Watford; second, Mr. T. Jones, Ruabon; third, Mr. W. Folkes, Ampthill, Beds.

Six Lettuce, Dickson and Robinson's Staghorn: First, Mr. T. Jones, Ruabon; second, John Kerr, Esq., Loudwater, Rickmansworth; third, M. Glynn, Esq., Albury Hall, Hadham.

Three Cauliflower, Dickson and Robinson's Snowdon: First, C. F. Raphael, Esq., Porter's Park, Shenley; second, Mr. A. Searle, Castle Ashby, Northampton; third, Sir C. T. Fermor-Hesketh, Bart., Easton Neston, Towcester. There were many good curds exhibited, the leading prize-winners having superb examples.

Six Turnips, Dickson and Robinson's Manchester Market: First, R. H. Comyns, Esq., Heath Farm House, Watford; second, Mr. G. Scourfield, Ty-Gwyn House, near Meath, Glamorganshire; third, the Right Hon. T. F. Halsey, Gaddesden Place, Hemel Hempstead. There were fifteen entries.

Six Cabbages, Dickson and Robinson's Selected Sugar Loaf: First, Mr. W. Folkes, Ampthill, Beds; second, Mr. Silas Cole, gardener to Earl Spencer, Althorp.

Six Parsnips, Dickson and Robinson's Selected: First, the Right Hon. Lord Curzon, Hackwood Park, Basingstoke; second, Mr. Silas Cole, gardener to Earl Spencer, Althorp Park; third, Mr. T. Jones, Ruabon. The prizes in the foregoing classes were offered by Messrs. Dickson and Robinson, Manchester.

For a collection of one dish each of seven vegetables, to be selected from a given list, prizes offered by Messrs. Barr and Sons, H. J. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. Gaiger), was first, Carrots, Cauliflowers, Red Globe Beet and Onion Crimson Globe being the best; second, Mr. G. Hobday, Havering Road, Romford, whose Carrots were very fine. Beet and Cauliflowers were also good. In the opinion of many the order of the prizes in this class should have been reversed.

For a collection of eight varieties of vegetables grown from seed supplied by Messrs. J. Cheal and Sons, Mr. G. Hobday, Romford, was first, Celery, Leeks, Cauliflowers, Runner Beans, Potatoes, Tomatoes, Onions, Carrots and all being excellent; second, Mrs. Von Hartman, Wimblehurst, Horsham (gardener, Mr. T. Sparke); third, Allan Scott, Esq., Holbrook Park, Horsham.

For the best three Clibran's Pink Celery, seed to be procured direct from Messrs. Clibran, who offered the prizes, Mr. A. Searle, The Gardens, Castle Ashby, Northampton, was first; second, Mr. Silas Cole, gardener to Earl Spencer, Althorp; third, H. J. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. W. Gaiger).

For nine Potatoes, Massey's Universal, Mrs. Dennison, Little Gaddesden (gardener, Mr. A. Gentle) was first; second, Mr. T. King, New Road, Bronham, Wilts; third, Mr. G. Scourfield, Ty-Gwyn House, near Meath, Glamorganshire.

For nine Onions, Massey's Selected Ailsa Craig, Mr. G. Scourfield, Ty-Gwyn House, near Meath, Glamorganshire, was first; second, Mr. T. King, Bronham, Wilts.

For nine Beet, Massey's Improved Black, open to gentlemen's gardeners, amateurs and cottagers, Mrs. Dennison, Little Gaddesden, was first; second, Mr. G. Scourfield; third, Mr. T. King, Bronham, Wilts. The prizes in these classes were offered by Messrs. G. Massey and Sons, Spalding.

In Class A, open, for six half-gallon bottles of various vegetables, other than Peas and Beans, bottled in pure water, first went to Mrs. Beckett, Elstree, with Carrot, Turnip (2), Tomato, Celery and Leek, in fine condition; second, Mr. V. Banks, 102, Park Street, Grosvenor Square, W., with Marrow, Asparagus, Brussels Sprouts, Carrots and Tomatoes; third, Mr. G. Hobday, Romford.

In Class 41 B, open, six one-pint bottles of Peas and Beans, Mrs. V. Banks was first with Broad Beans, Peas, Runner Beans and Butter Beans in fine form; second, Miss C. Banks, 487, Fulham Palace Road, S.W., with similar produce. These A and B classes of bottled vegetables and fruits were both interesting and instructive. The prizes in each were offered by the Anglo-Belge Glass Association, Limited.

THE SOCIETY'S CLASSES.

Open to Amateurs and Cottagers Only.—For six kinds of vegetables first went to Mr. H. Keep, Aldermaston, near Reading, Onions, Celery, Cauliflowers, Leeks, Runner Beans and Potatoes being all of exceptional quality; second, Mr. W. Coleman, 4, Hunter Street, Buckingham, whose Runner Beans, Peas and Potatoes were of excellent quality; third, Mr. C. F Jenden, 62, Spencer Road, Horsham. There were eleven competitors.

For three kinds of vegetables first was won by Mr. T. Jones, Ruabon, with Ailsa Craig Onions, Cauliflowers and Potato Seedling; second, Mr. W. G. Worth, 26, Stratfield Road, Summerstown, Oxford; third, Mr. James Smith, 29, Northolt Road, Harrow. The ten competitors in this class showed excellent produce.

For three dishes of Potatoes, distinct, first went to Mr. T. Jones, Ruabon, whose King Edward VII., The Provost (white round) and Windsor Castle were of superb quality; second, Mr. W. Coleman, 4, Hunter Street, Buckingham, who staged Supreme, Snowball and The Factor; third, Mr. J. T. Hall, Rose Cottage School, Little Marton, Blackpool, with Duke of York, Up to Date and King Edward VII. There were twelve competitors.

For two dishes of Potatoes, white and coloured, first went to Mr. J. T. Hall, Little Marton, Blackpool, with King Edward VII. and Dalmeny Hero II.; second, Mr. T. Jones, Ruabon, with Admiral (white round) and King Edward VII.; third, Mr. W. Coleman, 4, Hunter Street, Buckingham. Eleven competed.

For six Onions, first was won by Mr. T. Jones; second, Mr. T. Walker, Mason's Arms, Talgarth, Brecon; third, Mr. J. Hall, Little Marton, Blackpool. There were twenty-five competitors.

For six Carrots first went to Mr. W. Musson, 17, Alford Street, Grantham, with Dobbie's Intermediate; second, Mr. J. Sysee, Rest Cottage, Ampthill, Beds. Eighteen competed.

For six Beets first went to Mr. T. Jones, Ruabon, who had Dobbie's Purple; second, Mr. H. Keep, Aldermaston, near Reading; third, Mr. W. Humphreys, 3, Woodland Cottage, near Elstree. There were twenty-nine contestants.

For six Parsnips first was won by Mr. J. Brown Robinson, Great Barford, St. Neots, with Dobbie's Selected; second, Mr. W. Coleman, 4, Hunter Street, Buckingham; third, Mr. C. Child, Keeper's Cottage, Dedworth Green, Windsor.

Six Turnips: First, Mr. J. McCullock, Willoughby Street, Maithill, Perth, with Dobbie's Golden Ball; second, Mr. H. Keep, Aldermaston, near Reading.

Twenty-four Runner Beans: First, Mr. G. Gash, 57, Alford Street, Grantham, who staged Best of All; second, Mr. W Musson, 17, Alford Street, Grantham; third, Mr H. Keep, Aldermaston, near Reading. There were nineteen excellent dishes staged.

Three Cauliflowers: First, Mr. T. Jones, Ruabon; second, Mr. J. Fossey, 31A, Pollard Road, Hendon; third, Mr. J. T. Hall, Rose Cottage, Little Marton, Blackpool. There were twenty competitors.

Six Leeks: First, Mr. T. Jones, Ruabon, who staged Dobbie's International Prize; second, Mr. H. Keep, Aldermaston, near Reading, with Webb's Champion; third, Mr. W. Coleman, 4, Hunter Street, Buckingham. There were twenty-two contestants.

Twenty-four pods of Peas: First, Mr. H. Keep, Aldermaston, near Reading; second, Mr. C. Peacock, 39, Richmond Grove, Surbiton Hill; second, Mr. C. F. Jenden, 62, Spencer Road, Horsham. There were fourteen competitors in this useful class, some of the leading prize-winners affixing no name to their produce.

Two Marrows: There were sixteen competitors in this class, the two extremes in the size of the produce shown being little short of a revelation. First, Mr. W. H. Witsow, The Dairy, South Luke Street, Twyford; second, Mr. T. King, New Road, Bronham; third, Mr. H. Chapman, All Souls Cottage, Oxford.

Nine Tomatoes: First, Mr. J. T. Hall, Little Marton, Blackpool, with Supreme; second, Mr. T. Jones, Ruabon, who had Sunrise; third, Mr. J. Smith, 29, Northolt Road, Harrow, with The Marvel.

Twenty-four Shallots: First, Mr. C. Abbott, Lucy Cottage, School Walk, Sunbury; second, Mr. J. T. Hall, Little Marton; third, Mr. C. F. Jenden, 62, Spencer Road, Horsham. Sixteen dishes were staged.

Four bunches of herbs, distinct, shown in water: First, Mr. C. F. Jenden, 62, Spencer Road, Horsham; second, Mr. H. Cox, Thurlock Road, Waltham St. Lawrence, Twyford.

NON-COMPETITIVE GROUPS.

Messrs. Dobbie and Co., Edinburgh and Rothesay, displayed in baskets a splendid collection of Potatoes, superb examples evidencing the highest cultivation. Of the more noteworthy were The Factor, Admiral (a new round maincrop variety of much promise), Midlothian Early, Sharpe's Victor, Purple Eyes, Climax (a fine-coloured round), Exhibition Kidney and Selected Russet. Gold medal. Perfect examples of Dobbie's Exhibition Parsley in pots were also much in evidence. This would appear almost the last word in Moss Curled Parsleys.

Messrs. Sutton and Sons, Reading, had a particularly interesting and instructive exhibit of little-grown vegetables and salads in conjunction with French and other Beans, useful and ornamental, and produce of the highest excellence. In this way Capsicums, Garlic, mixed ornamental Gourds, Blackstone and Chirk Castle Turnips, Sugar Corn or Maize, Early Dwarf Chilian Beet, Chili Long Red, Chinese Artichoke, white and purple Egg Plant or Aubergine, The Sutton Shallot (grown from seed), Mushrooms, Kohl Rabi, superb Broccoli and much else of interest or merit was shown. Gold medal.

Messrs. Barr and Sons, Covent Garden, displayed an excellent collection of vegetable produce, Runner Bean The Czar, French Bean Dwarf Prolific, Potato King Edward, Cauliflower Autumn Mammoth, Pea Autocrat, Custard and Long White Marrows, Beet Dwarf Crimson (a particularly fine-coloured variety), Golden Nugget Turnip and Crimson Globe Onion being of excellent quality. Gold medal.

THE GARDEN.

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October 15, 1910.

CONTENTS.

HERBACEOUS PÆONIES 509
NOTES OF THE WEEK
Forthcoming events 510
Wisley Students' Diploma Examination, 1910 .. 510
Fruit congress at Hexham 510
CORRESPONDENCE
Saxifraga paradoxa 510
Rose Caroline Testout as a standard 511
Roses for table decoration 511
GARDENING OF THE WEEK
For the South and South Midlands.. 511
For the North and North Midlands.. 511
KITCHEN GARDEN
Corn Salad in winter 512
Some wonderful Potatoes .. 512
A unique table decoration 512
FRUIT GARDEN
Fruit notes 512
FLOWER GARDEN
A little-known hardy plant 513
Ornamental Gourds in the garden .. 513
GREENHOUSE
Bulb-growing in fibre 514
Crinum purpurascens 514
ROSE GARDEN
Rose hedges 515
New Roses of the year 515
GARDENING FOR BEGINNERS
Garden work week by week 516
Lifting and storing Beetroots and Carrots .. 516
Zonal Pelargoniums in winter 517
How to keep specimen Fuchsias through the winter 517
THE TOWN GARDEN.. 517
Classification of Sweet Peas.. 518
The Editor's Table .. 518
ANSWERS TO CORRESPONDENTS
Flower garden .. 519
Greenhouse 519
Rose garden 519
Fruit garden 519
Miscellaneous 520
SOCIETIES 520

ILLUSTRATIONS.

Potatoes The Provost and Admiral 512
A table decorated with Water Lilies and Irises .. 512
A rare hardy plant: Stenanthium robustum 513
A Larch pergola clothed with Gourds 514
Narcissus King Edward VII. grown in fibre 515
Lifting and storing Beetroots and Carrots.. .. 516, 517

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

HERBACEOUS PÆONIES.

THE Pæonia is *the* hardy border flower of May and June, stretching away, it may be, in Northern gardens and districts from the last-named month into that of July, and filling our gardens with a gaiety and a fragrance supreme and unique. The feast of colour beauty and charm which it provides is incomparable among the flowers of the year, and whether we view them from the standpoint of gorgeousness or spectacular display, or endeavour to take measure of that greater art beauty with which the majority of singles and semi-double flowered varieties are endowed, the result is very much the same. They are unique, occupying a place apart, after the manner of the Rose. The colour range to be found in the numerous varieties is alone remarkable. But seeing that theirs is such an unparalleled beauty, the question naturally arises, Why are not these flowers, with all their floral wealth and extended display, more frequently seen in good gardens? Why do we not, indeed, in those places where gardening in all its aspects and phases is carried on, more frequently find the Pæonia garden just as we find the Rose, Iris or other group playing its part, centralising to itself, as it were, that attention and flower worship, comparison and delight, impossible in any other way?

A Pæony garden in deed and in truth, where the whole range of European, Chinese, Japanese and Moutan forms may be gathered together to demonstrate unmistakably of their charms, their surpassing grandeur or their fragrance should certainly be worth while. Such a garden should be picturesquely, not formally, arranged, and the Pæonies may well have for their associates early-flowering Daffodils or late-flowering Lilies, something of a bulbous-rooted character before and after their coming, something to act in conjunction with, rather than be opposed to, these noblest of garden flowers, thus making their abiding-place a greater attraction than it would otherwise be. In no case, however, should such accompaniments be overdone—much less should there be any attempt at indiscriminate mixtures, as the planting of the bolder herbaceous subjects, which, while being out of place, might also be expected to make serious demands upon the soil, to say nothing of destroying or detracting from the value of the Pæony leafage, which amid the best surroundings is long retained.

I make these remarks to emphasise the impotent worth of jumble planting as opposed to good grouping and the discreet choice of subjects for associations of this kind, and labour the point rather because I have somewhere read advice about the planting of Larkspurs with these flowers, as though the twain were destined to fight for the supremacy or to do their best to crowd each other out.

In the Pæony in its early days we see a colour beauty of stem and leaf, now pink or red, or anon of richest crimson, that is quite striking in its effect in the garden, and if presently eclipsed by richness and variety in the heyday of flowering, there is still a return of it—modified though it be, yet pleasant withal—in the ruddy tints which pervade these things in the early autumn days.

Of course, it might well be urged that a comprehensive Pæony garden is only possible in gardens of the larger class, and this, indeed, may be true. At the same time, there is room in most gardens for Pæony beds or borders wherein the showier members of the race may well find place. The effect, indeed, may be assured by the use of the commonest sorts, and nothing could certainly surpass the brilliancy of the old double crimson when the plants had become established and furnished with a dozen or two of its gorgeously coloured flowers. A border of this one, say, of a hundred yards long, untied and unsupported and sweeping the verge beside the carriage-way, by reason of its load of blossoms would be something to remember, something to admire, so great would be the feast of colour if supported by a suitable background. But these Pæonies may also be planted in or near the woodland, or, again, in grass, preferably always in soil of good quality and fair depth. Fringes of the old crimson Pæony or its pink-flowered counterpart might also appear to borders or beds of the bolder-growing shrubs, and, rightly employed, the effect would be very fine.

The Culture of the Plants.—Viewing the Pæony from this standpoint, we find it a lover of the deepest soil, sending its long tap roots down to a depth of 3 feet or more where suitable soil exists. A lover of rich food, possibly not a little voracious, it also delights in free supplies of moisture during the growing season. Then there is the question of planting and transplanting, matters of the greatest importance

to the uninitiated. Pæonies are reputedly impatient of removal, and they will remain this so long as the majority of catalogues and text-books on gardening urge that the Pæony may be planted from September right away to April. Let me in direct answer to a dictum so false and so misleading say at once that a Pæony planted in September would stand an ideal chance and would speedily recover, while an April-planted one would hardly be worth the time spent upon it, and would resent the operation in the only possible way, viz., by a weak growth for the next two or three years. Herbaceous Pæonies produce but two sets of roots each year—the basal or main roots in early autumn and the fibrous roots which appear in spring. To preserve both sets intact is of the highest importance; to sacrifice them by late division and replanting is calculated to bring about the ruin of the plants or greatly weaken them. To put it shortly, August, September and October are the three months of the year wherein these Pæonies may be planted with impunity, and this term can only be extended when the plants, having been early lifted, have received a check to their root-producing proclivities for the time being. Pæonies should never be transplanted in large examples intact; it is as fatal to their well-being as that of planting them in April when a few inches of new growth has been made. The importance of this early autumn lifting and its retarding influence upon root action is now recognised by some of the large growers who export Pæonies on an extensive scale.

In planting the Pæonia the crowns should be buried about 2 inches below the surface; deep planting is inimical to their well-being. Water in plenty and liquid manure occasionally are very desirable in early summer-time, and in the case of very light soils I have more than once deluged their quarters with the latter in winter-time, with the best results. Pæonies well planted may remain for years undisturbed, the plants forming huge specimens, and in the best conditions make a splendid display.

The following are a select few that will not disappoint those who grow them well, though where hundreds of varieties exist it is difficult to make a selection. Happily, there are Pæonies within reach of the cottager and beginner, and others better suited to the pockets of the wealthy, and happily, too, many of the cheaper sorts are as good as the best. Varieties.—Duchesse de Nemours, Festiva maxima, Marie Lemoine and Mme. Calot are of white or creamy white tone. Canarie has a sulphur tint in the white and is a lovely flower. Philomele is satin rose, with an Anemone-formed sulphur yellow centre. Her Grace is peach pink. Delachei is deep crimson and a noble flower. Admiral Togo (crimson, yellow centre), Marshal Oyama (rose, with yellow centre) and Vestal are semi-double Japanese varieties difficult to surpass or even equal. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 20.—Fruit Congress at Hexham (three days).

October 21.—Tenbury and District Horticultural Society's Show, Corn Exchange, Tenbury.

Awards at the Brussels Exhibition.—At the Brussels International Exhibition, Messrs. John K. King and Sons of Coggeshall, Essex, have been awarded a prize medal for an exhibit of their seed corn and farm seeds, and an exposition of their system of selection of seeds. The competition was open to the world.

Wisley Students' Diploma Examination, 1910.—The Wisley Diploma Examinations in 1910 were held in March and July for those students whose two years' courses of instruction terminated in these two months respectively. Mr. John Fraser, F.L.S., acted as external co-examiner with the Laboratory Director on each occasion in both Principles and Practice of Horticulture. The sets of questions given in March and July, though different, were of equal difficulty. In addition to this examination, the merits of an essay on a horticultural subject and of botanical and entomological collections made, together with the powers of intelligent observations shown, are adjudicated upon in awarding the diploma. The collated results show the following order of merit, those taking the examination in March being distinguished by an asterisk: 1, H. F. Clough; 2, J. W. McCaig; 3, R. McK. Robson; 4, W. Cartwright; 5, L. C. Dyer; 6, *R. L. Brazier; 7, *A. F. Leverett, 8, *E. Krumbholtz; 9, H. Lane. Two other students who failed to satisfy the examiners have not had the diploma awarded to them. The following recognitions have also been given: The Student Demonstratorship mentioned in the syllabus has been offered to Mr. Clough; the Sutton Prize has been awarded to Messrs. J. W. McCaig, R. McK. Robson and W. Cartwright; the Nicholson Prize of £2 2s. has been awarded to Mr. J. W. McCaig for observations. The £5 offered by Mrs. G. F. Wilson for collections has been awarded as follows: 1, H. F. Clough; 2, R. McK. Robson; 3, L. C. Dyer; 4, a special prize for a collection of fungi, to Mr. J. W. McCaig.—W. WILKS, *Secretary, Royal Horticultural Society.*

Scottish Horticultural Association.—The monthly meeting of this association was held at Edinburgh on the evening of October 4. Mr. James Whytock, president, occupied the chair, and there was a large attendance. A number of exhibits of considerable excellence were on view, and two certificates of merit were awarded, one to Mr. A. Thomson, Dean Gardens, Edinburgh, for a single Chrysanthemum, and one to Mr. J. G. White, Aberlour, for a sweet-scented double Begonia. Mr. Thomson also exhibited other single and also double Chrysanthemums, and others were sent by Mr. J. Smellie, Busby. Mr. A. Johnstone, Hay Lodge Gardens, sent Justicia carnea, and some other exhibits of interest were shown. The lecture was by Dr. A. W. Borthwick of the Royal Botanic Gardens, Edinburgh, who gave an admirable address on "Diseases of Fruit Trees." This is a subject on which Dr. Borthwick is an expert, the questions regarding plant diseases having been thoroughly studied by him, and the lecture cannot fail to be productive of much benefit to his audience. Dr. Borthwick gave much interesting information relating to the diseases of economic plants as a whole; the ravages these commit, as shown by the estimated annual losses; and spoke of the efforts being made to reduce their virulence. He then discussed the diseases of the various fruit trees and the remedies employed, together with the desirability of the introduction of varieties of greater disease-resisting powers, which he strongly advocated. Dr. Borthwick was warmly thanked for his lecture.

Fruit congress at Hexham.—A large exhibition of fruit and also a fruit congress are to be held at Hexham from the 20th to the 22nd inst. when matters of considerable importance to fruit-growers in this country will be discussed. Both exhibition and congress promise to be exceptionally interesting, and we understand that deputations from the Royal Horticultural Society, the Royal Caledonian Horticultural Society and the Scottish Horticultural Society will attend.

A horticultural society for Yorkshire.—It has long been felt by horticulturists in the North of England that they labour under a disadvantage compared with those who live in the South, inasmuch as they are unable to attend or exhibit at the London shows of the Royal Horticultural Society without entailing great expense. A meeting to consider the advisability of the formation of a Yorkshire horticultural society was held at the Grand Central Hotel, Leeds, on the 30th ult. when Mr. P. Clapham of Calverley presided over a good representative audience. After considerable discussion, Mr. J. Donoghue proposed and Mr. T. H. Gaut seconded that a temporary committee be appointed, with Mr. A. J. Allsop as chairman and Mr. Clapham as secretary. The scheme is to be submitted to a representative meeting, to be held, if possible, at the Grand Central Hotel, Leeds, on the 22nd inst.

Wargrave and District Gardeners' Association.—A fortnightly meeting of this association took place on Wednesday evening, September 28, in the Parish Room, when a good number of members listened to a lecture by the hon. secretary (Mr. H. Coleby) on "Plant Hairs." The structure of these marvels of Nature, minute as most of them are, was carefully described, and diagrams were shown to make the explanations clearer. The theories held by the leading botanists as to the origin of plant hairs were stated and the various functions they perform in the plant economy were described, such as protection from unwelcome insect visitors, protection from heat, cold and rain, prevention of too rapid evaporation, assistance in dispersion of fruit and seeds, assistance in climbing or clinging, affording footholds for insects, the secretion of various fluids, pleasant and otherwise, and the provision of plant food. Each member of the audience was strongly advised to become the possessor of a small pocket magnifying-glass, for many of the wonders described could be seen quite clearly with such an instrument.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Saxifraga paradoxa.—One is always glad to elicit a note from Mr. E. H. Jenkins on the subject of the Saxifrages, a genus about which he knows so much, and his long knowledge of which gives special weight to his remarks. The plant figured on page 463 of THE GARDEN for the 17th ult. is undoubtedly that illustrated in the "Dictionary of Gardening" as S. pygmæa, and is the same as that referred to by Mr. Reginald Farrer in the quotation I made from one of his books. I purposely worded the note as I did to avoid any deep discussion of the question of nomenclature, as a considerable acquaintance

with readers of The Garden has driven me to the conclusion that such questions are a great annoyance to them, and that they hinder the popularity of even a good flower. But I may mention that neither S. paradoxa nor S. pygmæa finds a place in the "Kew Hand List," and that the "Index Kewensis" refers S. pygmæa to S. muscoides, which is a Mossy and not a Silvery Saxifrage, as those interested in the Saxifrages know. The "Index," however, gives S. paradoxa as a distinct species. I think much of the confusion in the name of this plant has arisen from the "Dictionary of Gardening." The plant in the photograph reproduced in The Garden is one which has been allowed to grow undivided for some time, so that the rosettes are not so large in proportion as the illustration in the "Dictionary of Gardening" shows, but a specimen of this size is more ornamental in the rock garden than a small one. There is no reason why this Saxifrage should not be quite common, as it is no more difficult to cultivate than almost any of the other Silvery Saxifrages.—S. Arnott, *Dumfries*.

Rose Caroline Testout as a standard. It would be difficult to imagine a more suitable Rose to grow as a standard or as a half-standard than this variety. The growth is quite vigorous, yet compact, flowers are freely produced in huge clusters, and, as the peduncle of each is stiff, the blooms are readily seen. From mildew this Rose is immune, and seldom is it attacked by aphis. I lately saw two huge beds filled with this variety only, and towering above the dwarf plants were half-standards about 6 feet apart. The effect was really good, as the otherwise flat surface was relieved by these plants and an additional mass of flowers was obtained at the same time.

Roses for table decoration.—I think there is much in what "A." suggests on page 482 anent this subject. In the case of double Roses—The Lyon or Richmond, for example—it is much more a question of colour effect than taste in arrangement, and, as "A." points out, it is the individual taste of judges that may be led away by the gorgeous colour effect that is produced by either of these varieties. My experience of judges of both sexes leads me to say that ladies especially are too often carried away by a colour impression of the whole, so that they are blind to defects of arrangement of individual receptacles, whether they are too thinly disposed or the reverse, more often the latter. Then, again, there are high tables *versus* low. It is true there are not many who favour the former in these days; still, there are some who cling to the old-fashioned method of arrangement, although in my opinion there is no comparison between the two styles of arrangement. Rustic stands are quite unsuited for Roses, except it be for the small-flowered sorts of doubles or singles, and then low bowls and dwarf vases are much more effective. I know quite well that were it not a question of ways and means, too often prizes would be offered separately for a table of single-flowered varieties and another for double flowers. Now that we have such a wealth of Roses with small flowers as well as so many single-flowered sorts, I am sure that Roses will be much more used in the future in table decoration classes, even where the flowers are not confined to Roses only. In the society for which I have the honour to act as hon. secretary, and where we annually offer £10 in prizes for table decoration, I find a growing tendency to use Roses much more freely than formerly. This is not to be wondered at when we consider the growing popularity of the Rose. This is a suitable time to ventilate this subject, as many societies will shortly be considering their arrangements for next year.—E. M.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plants Under Glass.

MALMAISON CARNATIONS.—The layers that were recently potted into 3-inch pots will by this time be nicely established. From now onward through the winter especial care must be taken in watering. They will keep in a much healthier condition on the dry side than if allowed to get too wet. They should be grown on shelves as near the glass as possible in an airy greenhouse with a night temperature of 50° Fahr. Give an abundance of air by day, and a little by night when possible. On no account must the atmosphere in the house be allowed to remain in a humid state. Any plants that are considered to be rooted enough to repot should be attended to at once, using 5-inch or 6-inch pots for the work.

Perpetual-flowering Carnations.—These will demand attention with regard to tying and disbudding. The flowering stems should be loosely tied to a stake in the centre of the plant. One flower only should be allowed to each stem. All side buds should be removed as soon as they are large enough to handle.

Kitchen Garden.

Late Broccoli.—These should now be slightly moulded up—that is, soil pulled up to the stems to afford them protection against severe frosts, also to prevent the strong winds from loosening them.

Cauliflowers.—Where the heads are turning in quicker than the demand, they may be somewhat retarded by lifting and storing. If they are taken up carefully with a ball of soil attached and stacked closely together in a dry, airy shed, they will keep fit for use for a fortnight.

Seakale.—Exposing the crowns by removing all decaying foliage will greatly assist in the ripening, and a well-matured crown forces more readily than one not matured. This same advice applies to Rhubarb.

Flower Garden.

Beautiful effects are obtained by naturalising bulbs in grass and woodland. Previous to planting it is advisable to have the grass cut close, when it will not require cutting again till the early bulbs have finished flowering, and it also allows better facilities for the planting. Undoubtedly Daffodils create the finest effect, and should be grown in large, irregular breaks or clumps in numbers ranging from fifty to one hundred or over, according to taste. Some of the best varieties for the grass are Emperor, Empress, grandis, Sir Watkin, Barrii conspicuus, Golden Spur, Leedsii Frank Miles, Mrs. Langtry, odorus, Poeticus ornatus, P. præcox grandiflorus, Henry Irving, maximus and others. The handiest tool for planting Daffodils is Barr's Bulb Planter. The work can be got over very rapidly, also cleanly, and the disturbance of the turf is not noticed. The only thing against bulb-growing in grass is the fact that the clumps give a rather untidy appearance till the foliage ripens. If the foliage is cut down when in a green state with the first grass mowing, the bulbs weaken and soon leave off flowering. However, there is always some rough grass where the practice may be carried out. Under trees, where grass is never very coarse, Winter Aconites, Ornithogalums and Musk Hyacinths may be planted.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Flower Garden.

Begonias.—As soon as frost cuts down the tops, the tubers must be dug up and placed where no frost can reach them. They should be spread out in the sun to dry, care being taken not to pull away the stems, or much harm may be done to the tubers. The stems will drop off in the course of a few days, and should then be cleared away, as they create damp and prevent the roots drying. After they are thoroughly dry, any earth attached should be rubbed off and also most of the roots. Then place in layers in boxes with plenty of dry sand between. Lay them hollow side down and store in a dry, cool place quite safe from frost. If the place chosen for storing Begonia tubers is too warm, growth will start away almost immediately and they will be ruined.

Dahlias.—Cut down the stems of these to 9 inches from the ground and dig up the tubers without damaging them. Remove all the soil with a pointed stick and stand in the sun for a few hours to dry. Store in a dry, cool cellar, standing the roots upside down. This prevents, to a great extent, premature starting into growth.

Rose Garden.

Planting Roses.—It is, of course, too soon yet to think of planting, but the earlier the ground is got ready the better. Where new beds or borders are to be planted this autumn, now is the time to trench the ground. As every gardener knows, the Rose must be well nourished if it is to succeed properly, so in preparing the site for a Rose-bed fairly deep working and heavy manuring are essential. If some fresh turfy loam of rather a heavy, greasy nature is available to add to the garden soil, so much the better. A good plan is to remove the second spit entirely and make up with fresh loam and manure, that is, of course, if the subsoil is poor or unsuitable. Usually the top spit of a garden is in excellent order for the Roses to start in, unless, indeed, it be light and sandy. Whatever is done in the way of preparation for a Rose plantation should be well done, as only good culture will give satisfactory returns. When the soil is got ready several weeks in advance of planting it gets settled down, and is, consequently, in a better state to receive the plants. When the first favourable opportunity for planting occurs it can be taken prompt advantage of, an important point where a lot of work has to be done.

Kitchen Garden.

Celery.—The final earthing of this vegetable should be seen to on a dry day. The soil should be beaten smooth and firm, so as to keep off rain as much as possible. Some thick Spruce branches should be got ready for placing over the trenches when hard frost threatens. This is almost as good as straw, and is much tidier and easier to manage.

Beetroots.—If not already lifted, no time should now be lost in securing these valuable roots. Lift and store with great care, as careless or rough handling will ruin the crop.

Globe Artichokes.—This fine vegetable is sadly neglected in some establishments, and often the plants perish during winter. It is damp more than frost that does the mischief. The best way to mulch them is to first heap up a good quantity of dry leaves all round each plant, and then cover well with long, dry litter from the stable. This wards off most of the rain and snow and keeps the crowns comfortable all the winter. If birds scratch off the mulching, lay a few Pea stakes over it.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE KITCHEN GARDEN.

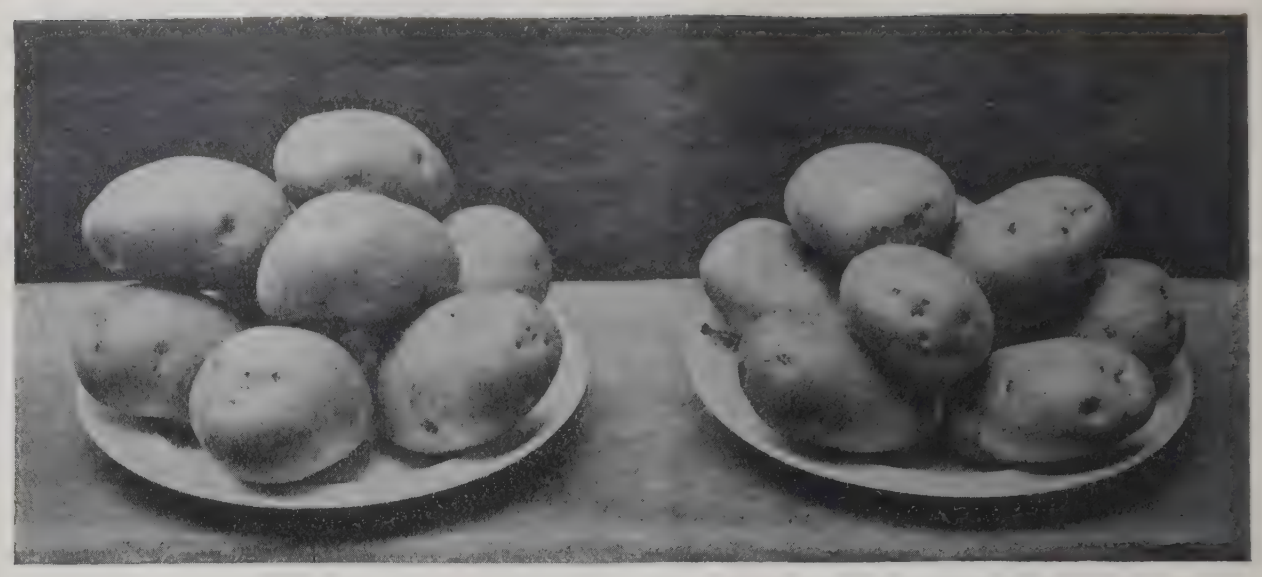
CORN SALAD IN WINTER.

AMATEURS are frequently very short of good green salad materials in the winter season, *i.e.*, from October to March, and they require something to take the place of the Lettuce and Endive, but which must be quite hardy and not readily influenced by severe weather. I do not advise Corn Salad in the summer, as then there are better kinds to be had; but for use in winter a good variety of Corn Salad, or, as it is often known, Lamb's Lettuce, is most useful. There are not many varieties, and the Broad-leaved Italian is probably the best.

Recently, at the Royal Horticultural Society's gardens at Wisley, I noticed a very fine Continental form which was much superior, both in size and colour, to the ordinary type. This was grown with a large number of other salads of all kinds, and it was of considerable interest, showing the great variety we have of things rarely seen or grown in this country. When the amateur can grow such salads for a winter supply without the aid of glass there is a great gain.

There should be two sowings for an early autumn and winter supply; the one for the first-named should be made in August, and that for winter a month or six weeks later. In the northern part of the country I would advise sowing early in September to get a strong plant, as, though this salad is a remarkably quick-growing plant, it is also very hardy, and to get good results should be given plenty of room in the seed-bed. For a winter supply the land should be well tilled, and as the plant is a surface-rooter it should be well manured; poor, barren soil means a poor, small leaf, whereas the reverse gives large, succulent leaves in abundance. Seed should be sown thinly in drills 12 inches apart, and the plants thinned in the rows to at least 4 inches to 6 inches apart. The old form frequently seen in our gardens has a much smaller leaf and is often sown broadcast, but I would advise sowing in drills for a winter supply, as it is much easier to gather the produce and to keep the plants free of weeds. The crop is taken by gathering the large leaves, and this should be done frequently, as the plants quickly produce more, and the leaves in a young state are of superior flavour. Its value is when mixed with other salads. In a severe winter to protect the leafage I have found it advisable to cover the plants with long, dry litter or Bracken.

G. WYTHES.



POTATOES THE PROVOST AND ADMIRAL. SHOWN BY MR. J. HUDSON OF LEICESTER AT THE NATIONAL VEGETABLE SOCIETY'S EXHIBITION.

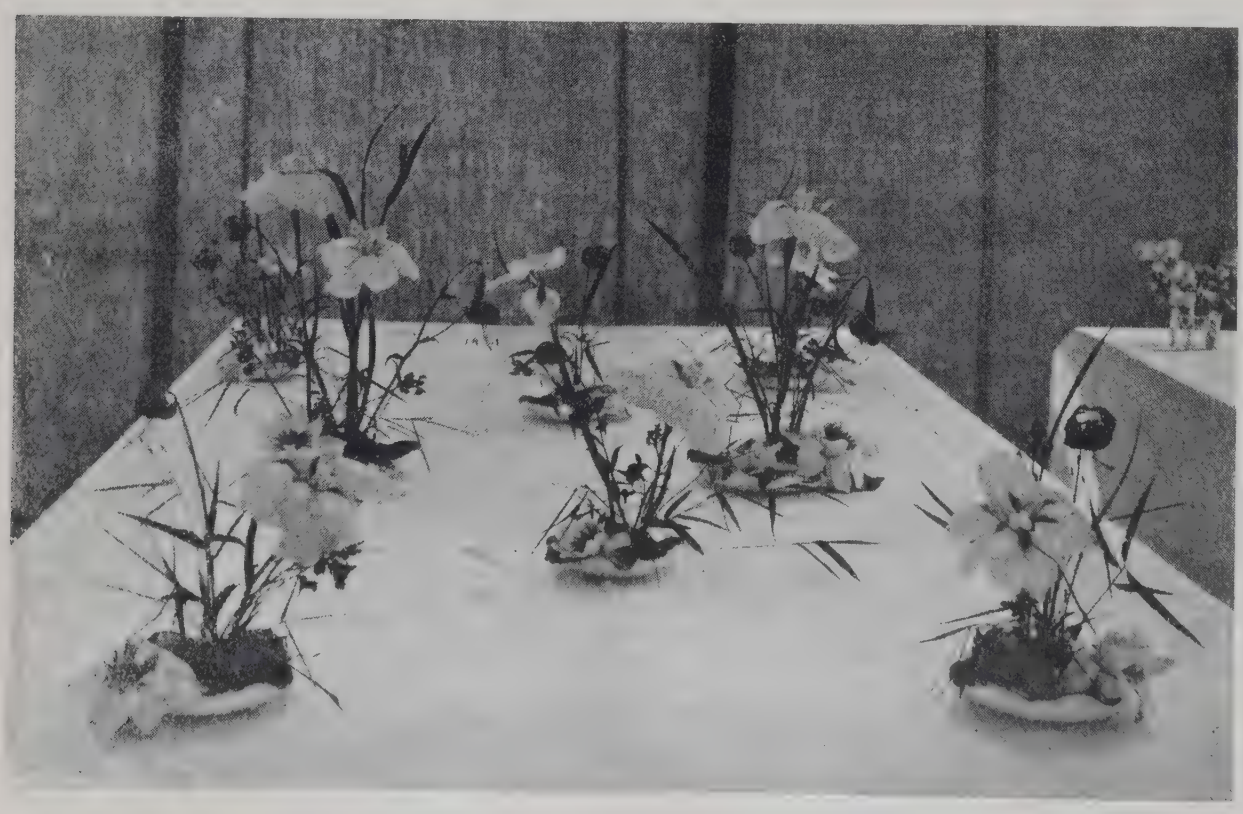
SOME WONDERFUL POTATOES.

AMONG the many excellent dishes of Potatoes staged at the National Vegetable Society's recent exhibition, the two illustrated were regarded by many as the best. These were shown in Class 13 by Mr. J. Hudson, Gimson Road, Leicester, the prizes for these being offered by Messrs. Dobbie and Co. No fewer than fifty-one exhibits were staged in this class, and Mr. Hudson is to be congratulated on winning first prize in such strong competition. The variety on the left is The Provost and that on the right Admiral, both white-fleshed, pebble-shaped Potatoes of the main-crop section.

A UNIQUE TABLE DECORATION.

THE ancient town of Woodbridge, Suffolk, picturesquely situated on the western bank of the River Deben, proudly boasts, and not without reason, of having the finest show in East Anglia, and this summer it may truly be said that it beat the record. I must, however, leave to other pens to discant on its various exhibits, and confine myself to the table decorations, or, rather, to one table which carried first honours (with twelve entries), all good; but the unique and artistic Japanese table decoration illustrated below was superb. From this class Roses were excluded, and the wording of the schedule ran "to consist of any other flowers, foliage and Grasses." The lady who arranged the premier table was Miss A. M. Minter, and she employed Irises, white Water Lilies, Liliums and Bamboo foliage. The Lilies were the same shade of red as the Japanese receptacles. The Water Lilies nestled among their own leaves in the water and the white Irises towered above them in artistic harmony, the red Lilies giving a warm note in the midst of the white flowers, and the Bamboo foliage, springing as it did from the water, maintained the character of this novel and carefully worked out table decoration.

Halstead. HENRIETTA J. PHILBRICK.



A TABLE DECORATED WITH WATER LILIES AND JAPANESE IRISES

THE FRUIT GARDEN.

FRUIT NOTES.

GREASE BANDS.—Although there are still some people who profess to believe that grease-banding is a waste of time and money, the most intelligent cultivators have long since proved that the process is invaluable in checking the ravages of the dreaded winter moth caterpillar. It is almost beyond doubt that those who are sceptical as to the advantages of the practice have only done it in a perfunctory manner, probably putting the bands on too late in the autumn, and then neglecting to give the attention that is subsequently imperative to the best results. There cannot be the slightest doubt that all bands should be in position during the present month, and the earlier the better. Whether any special form is utilised or stout brown paper smeared with cart-grease is relied upon is immaterial—the object is the same, and the results will be gratifying provided that the full stickiness of the stuff is maintained right through the winter. This necessitates occasional examination of the bands, but the time thus involved is well spent, since it will mean that thousands of female moths will be arrested in their upward march.

LIFTING AND REPLANTING.—It commonly occurs that trees which have been planted in their permanent positions for one season make excessive growth, and, unless steps are taken to check the exuberance, the time will assuredly come when root

pruning will be necessary to induce the trees to form fruit-buds. When the soil is not well firmed about the roots at planting, or if it is only slightly on the rich side, the growths will be far stronger than is desirable, and the readiest method of stopping them is to lift and at once replant the trees. This process sounds so simple that the inexperienced might assume that it could not possibly do the smallest amount of good; but experience has proved to the point of demonstration that it admirably achieves its object. It is, of course, well within the bounds of possibility that some coarse roots will be found when the work is in hand, and these should be severed, exercising care to cut smoothly the ends from beneath upwards. It is desirable, but not imperative, that this should be done by the end of this month.

Ordering Trees.—The fruit nurserymen who advertise their trees in the pages of The Garden are anticipating a busy season; they have magnificent stocks of all the finest varieties in cultivation. There are favourable indications that the trees will move splendidly during the coming six to ten weeks, and there is no doubt as to the desirability of planting in the autumn in the vast majority of soils. It was not, however, to the actual operation that I intended to make particular allusion in this paragraph, but to the importance of sending the orders for trees as early as possible. Those who have to plant considerable numbers usually make a special journey to the selected nursery and choose their own trees; but the amateur who only wants a few sends the order by post, and the earlier he can place it, the better are his chances of securing good trees. The grower who has post orders exercises special care in most instances to pick the right stuff, for the simple reason that, did he not do so, his reputation would rapidly suffer; but he cannot send the finest when they have been sold, hence the necessity for ordering early.

Stored Fruit.—It is a matter for regret that few of us have any bulk of fruit, either in or to be taken into our storerooms this season. From one end of the country to the other the reports are of light crops, and it is, therefore, more than ever necessary to devote the utmost care and attention to the gathering and the subsequent storing, with a view to securing the full advantage of what there is. In a year of plenty it is inexcusable to throw good Apples and Pears about as though they were so many stones, but in a lean season such as this it is nothing short of criminal. Each specimen ought to be gathered when it is in the best condition, but, of course, the latest sorts should be permitted to hang as long as possible to ensure perfect ripeness and the full development of the keeping properties. Storage must be in single layers on the shelves, and every opportunity ought to be seized to go over the stock to remove any that show the slightest signs of decay or disease.

Fruit-grower.

THE FLOWER GARDEN.

A LITTLE-KNOWN HARDY PLANT.

(Stenanthium robustum.)

BELONGING to the Lily family, the Stenanthiums are closely related to the Veratrums, but instead of broad, massive foliage, they have long, grassy leaves. There are only three or four species belonging to the genus, and they are all North American natives, although one is also found in North-Eastern Asia. The best of all is the plant illustrated, S. robustum. It is a remarkably hardy perennial and one of the best introductions of late years, worthy to be classed with the showiest of all herbaceous plants. In its native habitat in the Carolina Mountains it is said to attain to a height of from 5 feet to 8 feet when well established. There it grows in strong loamy soil on the fringes of woods and thickets, where it gets a certain amount of shade and protection. The illustration shows a plant about 3 feet high growing among Ferns in a somewhat open situation. As, however, it has not been planted long, it will probably assume something nearer to the proportions given above when better established. The inflorescence occupies the upper half of the stem, and as the buds begin to unfold in early August they are quite upright and of a light green tinge, gradually becoming whiter until the whole assumes the appearance of a fleecy plume, which is the reason why it has been given the popular name of Mountain Feather Fleece. As the flowers fade they take on tinges of purple, while seed is freely produced. Like the Veratrums, the Stenanthiums do not care for transplanting, and take some time to recover. They should be planted in deep and rich loamy soil in a half-shady situation. S. robustum was introduced to cultivation a few years ago by Harlan P. Kelsey of Highlands Nursery in the Carolina Mountains. There is another species in cultivation, S. angustifolium, of smaller habit and with narrower foliage. W. I.

A RARE HARDY PLANT: STENANTHIUM ROBUSTUM.

ORNAMENTAL GOURDS IN THE GARDEN.

The cultivation of Gourds for the decoration of the garden is a subject that might with advantage be given more attention, as where a good collection is grown they are undoubtedly interesting and beautiful and attract much attention during the summer months. To see them in their full beauty they should be trained up good strong Larch poles which have not been trimmed too closely, or over a pergola in the kitchen garden, or even in any other part of the garden where a pergola would not be out of keeping with the general arrangement.

The pergola illustrated on page 514 covers the central path of the kitchen garden here, and is about 9 feet high by about 13 feet wide, these distances allowing the plants a fair amount of space, which I have never known them fail to cover, even during the worst season. The past summer has not been an ideal one for them, the temperature remaining too low; nevertheless, they grew and fruited freely, carrying from a ton to 30cwt. of fruit, which is about the average. Of course, this weight might be enormously increased if only the larger varieties were grown; but as these are not quite so decorative as the smaller ones, only some six or eight plants of large sorts are grown, just to give variety.

The cultivation is very simple, but if good results are desired the ground in which they are to be planted must be well trenched, adding a fair dressing of manure or vegetable refuse. Seeds should be sown early in April and treated much the same as those of Vegetable Marrows, planting out the seedlings as soon as the weather is favourable, but giving protection from cold winds or frosts. As soon as the plants begin to run freely they must be kept tied in position, or they will be very easily damaged by winds. Good soft string is the best material for the purpose, matting not being strong enough to hold the shoots when well set with fruit. Water freely with liquid manure during the growing season, and with some of the varieties it will be quite interesting to note how rapidly the fruit swells. There are very many

varieties of Gourds, and collections of them may be bought from the leading seedsmen. Some of the larger varieties are as useful as they are ornamental, being much in demand for jam and soup-making. THOMAS STEVENSON.

Woburn Place Gardens, Addlestone.

[Visitors to the Royal Horticultural Hall on the 27th and 28th ult. will no doubt remember the remarkable exhibit of Gourds staged by Mr. Stevenson. The accompanying illustration depicts these same Gourds growing.—ED.]

THE GREENHOUSE.

BULB-GROWING IN FIBRE.

BULB-GROWING in fibre or any similar medium has been so much to the front the last year or two that I rather imagine there are some who have come to the conclusion that it is simplicity itself. Get some fibre. Get some bulbs. Put the bulbs in the fibre in the bowl and then flowers are certain to come.

A LARCH PERGOLA CLOTHED WITH GOURDS.

It sounds so delightfully simple that it is really too bad of the bulbs to want any further attention. It is a great mistake to think that it is the easiest thing in the world to grow bulbs in fibre. It is not very difficult, it is true, but it requires care and constant watchfulness. The main thing is to have the medium in a moist but not a soaked condition to begin with, and then to see that it never gets too dry nor, on the other hand, too wet. Any shape or sized bowl or vase may be used and filled with appropriate bulbs. Speaking in general terms, the larger the receptacle the larger the bulb that may be put into it. It is, however, quite easy, with a little practice, to grow Emperor Daffodils and ordinary first and second sized Hyacinths in bowls about 4½ inches deep and 9 inches or 10 inches in diameter. The following are some of the main points that deserve attention:

The Receptacles.—Practically any fancy flower-pot or bowl may be used. In my opinion, by far the best for the purpose are those that are self-coloured, as a pattern of any kind in colours seems to me to mar the effect and invite attention to a part of the whole which would be better unnoticed. The two best shades are green and brown. Personally I favour the latter, and consider that a dark base is a great gain, as it serves to set off both foliage and flower and clashes with neither. With regard to the shape of the receptacle, my only advice is that on the whole most bulbs look better in low bowls than in tall ones. In Mrs. Earle's "Pot-pourri from a Surrey Garden" there is an illustration of a Japanese cut-flower decoration on page 355, where we get the same idea of a flat, low bowl, out of which springs a large spray of Rosa rugosa.

Rooting Medium.—Every dealer has his own special mixture, and I should say all are equally good. One most essential factor in whatever is employed is that it should be broken up as much as possible, the finer the better within reason. I myself use peat-moss, such as is used for packing Tomatoes, which is passed through a fine garden riddle. This, with a few lumps of charcoal, I find equal to any fibre that I have bought, and it is less expensive. Even more inexpensive still is ordinary light garden soil. I have seen in a neighbour's house, and in my own, the very best results from this simple method. I suppose the truth is that the medium used does not very much matter. Pebbles, fibre, peat, soil and sand are all good if the same care is exercised in each case. I have grown with oyster-shell and without, and have been unable to see any difference between the two.

Planting and Culture.—The medium must be moist—not wet and sodden. It should not be possible to squeeze water out of it if it is pressed in a closed hand. At the bottom it is well to put three or four small lumps of charcoal, and on this the medium must be placed and very slightly pressed down. Then when the requisite depth is attained the bulbs should be planted, just placed where they are wanted and not pressed down. Lastly, the bowl or vase should be filled to within half an inch of the top. It is not necessary to cover the tops of the bulbs if there is any dark, airy cellar or cold frame outside, which can be darkened, in which to stand them. It is a mistake to plant too early unless one has the convenience of a greenhouse. When everything has to be done in the dwelling-house, the end of October is about the best time, as then the bulbs will not be inclined to flower in the dull days of January, when results are apt to be disappointing. The whole of the cultural instructions may be summed up very shortly. Never let the medium get dry, never allow it to remain in a sodden condition, turn the bowl on its side carefully, and allow any superfluous water to drain away if there is any suspicion of there being any. Give all the light and air possible. To do this keep the bowls near a window, turning them round every day, and on every possible occasion open it so as to admit air, but on no account allow the plants to stand in a draught.

What to Grow.—Pretty well anything in the way of a spring-flowering bulb may be used. It is curious to see people advocating certain new varieties, say, of Daffodils or something else, as being peculiarly suitable for this culture, when one is almost certain that they have never been tried. They probably will do well, but it only lends point to my remark that almost anything can be grown in this way. Roman Hyacinths; Dutch Hyacinths, especially the miniature size; early flowering Daffodils, such as Henry Irving, Golden Spur and obvallaris; Polyanthus Narcissus and Poetaz, especially Alsace and Aspasia; Tulips, such as Vermilion Brilliant, Prince of Austria, Yellow Prince and Scarlet Duc van Thol; Lily of the Valley (retarded crowns); Crocuses—I fancy May and Distinction would be tip-top, but I have not tried them yet—I am planting some now; Freesias and Scillas are some of those bulbs that should be tried. The varieties may be enormously increased, for what will do in pots will do in bowls, only they must be carefully looked after. The illustration on page 515 shows Narcissus King Edward VII. grown in a *papier-mache* bowl. J. JACOB.

CRINUM PURPURASCENS.

IN THE GARDEN for March 5 of the present year, page 112, there is an illustration of this Crinum, which, shown just previously by Sir Trevor Lawrence, had been given an award of merit by the floral committee of the Royal Horticultural Society. Its colour is whitish with a staining of red, and the long, prominent stamens are also red. My object in referring to this Crinum is not to recommend it for everyday culture, but to point out that it was again shown by Sir Trevor Lawrence on September 13, with the information that it was the third time this particular plant had flowered during the present year. H. P.

THE ROSE GARDEN.

ROSE HEDGES.

(*Continued from page* 498.)

HAVING decided that some variety or other of Rosa wichuraiana probably provides for us the most suitable Rose for a hedge, using the term in the ordinary sense, namely, something 6 feet or 7 feet high and as much through—a dense, impenetrable thicket, a counterpart of the Quickset hedge of the most robust type—it is necessary to discuss other varieties of hedges. Possibly, one has not the space at command, or a variety is wanted that will produce Roses of a larger type more or less continuously throughout the Rose season, sweet-scented, useful for table decoration as well as a garden ornament.

I will presume, as before, an exposed position (and I should mention that a Rose hedge will give better results if planted on a line facing east or west rather than north or south); this precludes at once all Teas. A hedge is one of those things that you cannot afford to have cut down by frost. Another matter that is deserving of more consideration than it generally receives is that the Rose chosen should not be too robustly armed with thorns. Such a Rose, for instance, as Conrad F. Meyer in an exposed position simply commits suicide; flowers, leaves and branches are speedily rendered unsightly unless every single growth is rigorously tied in, which means a lattice or fence. If the latter is available and the necessary trouble would be taken, the Rose in question would stand high on the list; as it is, I must discard it from my "hedge" Roses.

A Rose that answers all requirements and is satisfactory from all points of view (especially if carefully looked after at pruning-time, the vital period in all successful Rose culture), whose praises I am always singing, and that certainly should be in every garden, although ten years ago it had practically gone out of cultivation in this country, owing its fresh lease of life to the National Rose Society, is that best of all the Bourbon hybrids, Zephyrine Drouhin, given us by Bizot as long ago as 1873. A "Rose without a thorn," almost, one might add, without a fault; deliciously sweet-scented; a particularly clean, bright shade of pink in its flowers, with beautiful foliage, that blooms from June to Christmas (weather permitting); almost mildew-proof; a strong grower; flowers in the young stage of perfect shape and just the right size for a button-hole; and, if one seldom sees it used, it is first-rate as a table decoration, the shade of pink being delightful under artificial light. It should be planted about 2 feet 6 inches to 3 feet apart in a double row, pruned hard the first season to get shapely plants, and afterwards the two year old wood should be cut out, last year's wood flowering freely on laterals. It is quite a good autumnal Rose; its only fault is that its growth is rather too pliant and apt to sprawl, an occasional support being necessary. With me it grows 6 feet high.

Another species that has the accommodating feature that one can grow it to any size desired, restricting it to 3 feet or letting it go up to 6 feet or more, is the rugosa. The best varieties for the purpose I have found to be the single white, alba, and its double form, Blanc Double de Coubert. An excellent effect can be obtained by using both forms, planting them alternately; then in the autumn the glorious heps of the single variety form a contrast to the pure white flowers of the latter. How should be cut out. Few Roses grow quicker, and there is a look of robust health about the new wood and foliage that does one good to look at. Sturdy, hardy, capable of growing and taking care of itself in any situation, and very useful is Rosa rugosa. Another variety that makes an excellent hedge, easily kept within bounds, whose flowers are small and borne in long clusters, "elegantly arranged," as the catalogues have it, is Trier. It is quite satisfactory, though it loses its foliage in the winter. Its raiser, Herr Peter Lambert, added another item to the debt that all rosarians owe him when he gave us Trier, and as he promises us a further series of these perpetual-flowering climbers of similar habit but varying colours, it is clear that we owe him much. Some of the best of the Pompons as an edging, Frau Karl Druschki in the centre, with Trier between the two, make a nosegay that any raiser might be proud of.

H. E. Molyneux.

NARCISSUS KING EDWARD VII. GROWN IN FIBRE WITHOUT DRAINAGE.

pure white they are can be found by placing a bloom of Frau Karl Druschki in the same vase; the result will astonish those who have not tried the experiment, and will quickly prove that the latter is not the whitest Rose by a very long way. Another feature of these rugosas is the effect (unfortunately, lasting for a week or so only) obtained just before the foliage falls. The leaves turn a glorious golden colour that rivals the autumn tints of our forest trees. I think— nay, I am sure the best results are obtained by real hard pruning, and all wood not of the previous year's growth

NEW ROSES OF THE YEAR.

(*Continued from page* 499.)

Grace Thomson (Multiflora, William Paul and Son, 1910).—Habit of Crimson Rambler, flowers variegated red and white. When forced under glass the golden stamens are most conspicuous and give a very quaint appearance to the blooms.

Grossherzogin Von Weimar (H.T., Kiese and Co.).—A cross between Frau Karl Druschki and Kaiserin Augusta Victoria. A promising novelty.

Herzogin Marie Antoinette (H.T., Welter). — A fine novelty, well shown at Liegnitz. It is an intense yellow colour, and should prove most useful.

Helene Wattine (H.T., Soupert et Notting, 1909).—A grand exhibition variety, with large, full, beautifully formed flowers, colour white, with lemon centre. A cross between Kaiserin Augusta Victoria and Le Progres.

Henri Descours (H.T., Gamon, 1909). — Salmon rose, shaded copper, base of petals golden yellow, flowers large and fairly full. A cross between Eugenie Boullet and Luciole.

Herzog Karl Edward (H.T., Welter, 1909).—Bright cherry red, with deeper centre, large, full and fragrant; lovely deep buds, opening well; growth erect and vigorous. A cross between Caroline Testout and Farbenkönigin.

His Majesty (H.T., S. McGredy and Son, 1909).—With me there is a tendency towards a magenta tint that somewhat mars this otherwise superb Rose. The form and substance are all that one could desire, and the growth good, but I have never seen a bloom of the colour of Duchess of Bedford, such as the raiser states it will sometimes appear. However, it is a first-rate Rose, and should be in every collection.

H. V. Machin (H.T., A. Dickson and Sons).—From what I saw of this Rose at Regent's Park I should say it would eclipse Hugh Dickson, for it appeared to possess a freer-blooming habit. P.

(*To be continued.*)

GARDENING FOR BEGINNERS.

LIFTING AND STORING BEETROOTS AND CARROTS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Unlike many kinds of plants, bulbs do not greatly interfere with the roots of the permanent occupants of the borders, as their own roots do not ramble more than a few inches away. The greatest danger to shrubs and trees lies in the work of preparing the soil for the reception of the bulbs. If, however, ordinary care be taken, there need be no damage done to either shrub or tree roots. Many amateurs put in bulbs of the Golden-rayed Lily of Japan, Lilium auratum, as early as they can; but such early bulbs are rarely well ripened, and consequently they perish, or many of them do, and those that grow fail to bear good spikes of blossoms. These bulbs may be left out of the list now. If planted early in the new year they will succeed better, especially if medium-sized, heavy bulbs are put in. Where the natural soil is clayey, some sandy peat or, failing peat, leaf-soil and sand must be mixed with the natural loam. For every clump of Narcissi, where seven bulbs are used in a clump, one gallon of the prepared compost should be added. There ought to be no formal arrangement of the bulbs, whether they be Hyacinths, Narcissi, Jonquils, Tulips, Crocuses or Snowdrops. In some parts of the country the frosts have already seriously damaged the leaves and tender stems of the Dahlias. All plants on which the flowers are faded must be lifted carefully, and then retained for a short time in a cool shed for the soil to dry on the tubers and the skin of the latter to harden. Dahlias, especially single-flowered ones, should be covered every evening with scrim to guard the flowers against injury by frost if there are nice buds still developing.

Vegetable Garden.—The work of lifting and storing root crops must now be seriously attended to. If Beetroot, for instance, is left in the ground until rather severe frosts come, the crop will be much damaged. Careless lifting and storing will also result in injury to the tender roots. Do not forcibly pull up the roots, but loosen the soil first with the aid of a strong garden fork or spade. If the skin of the roots is scratched by forcibly pulling them up through the soil, they will bleed and not keep well. Twist off the tops; do not cut them off. Store in sand or dry soil in cool sheds or pits on high ground in the open air. Treat Carrots in a similar manner. Take out tubers of seed size from Potatoes and Jerusalem Artichokes and store both separately, the former in light, airy positions, the latter in heaps under straw and soil. Do not lift Parsnips. Endive soon decays if much moisture lodges in the hearts of the plants. Before any tiles or boards are put on to induce blanching, see that the plants are quite dry. Winter Spinach must be finally thinned; then those plants retained will grow strongly and withstand severe weather well.

1.—TO LIFT BEETROOTS AND CARROTS A FORK OR SPADE SHOULD BE USED, THRUSTING THIS IN A FEW INCHES FROM THE ROOT.

Fruit Garden.—Many readers will be anxiously trying to make a good selection of fruit trees where new gardens are being dealt with and collections added to. The following list will prove helpful. Apples: Dessert.—Mr. Gladstone, Beauty of Bath, Devonshire Quarrenden, Worcester Pearmain, Blenheim Orange, King of the Pippins, Cox's Orange Pippin, Fearn's Pippin, Nonpareil, Adam's Pearmain and Lord Burghley. Kitchen.—New Hawthornden, Nonsuch, Ecklinville, Lord Grosvenor, Stirling Castle, Cellini, Worcester Pearmain, Golden Spire, Warner's King, Lord Derby, Bismarck, Lane's Prince Albert and Dumelow's Seedling. Pears: Dessert.—Citron des Carmes, Williams' Bon Chrétien, Louise Bonne of Jersey, Marie Louise, Passe Colmar, Durondeau, Emile d'Heyst, Beurré Diel, Winter Nelis, Easter Beurré and Ne Plus Meuris. Stewing.—Uvedale's St. Germain, Catillac, Verulam and Vicar of Winkfield. Plums: Dessert.—Golden Esperen, July Gage, Green Gage, Coe's Golden Drop, Kirke's and Jefferson. Cooking.—Early Orleans, The Czar, Denbigh, Victoria, Pond's Seedling, Prince Engelbert and Grand Duke. A select list of other fruits will be given next week. Hardy fruits, as they ripen, must be gathered and stored. Clear away all falling leaves every few days.

Greenhouse and Frames.—Chrysanthemums that are being grown for the production of large blooms, whether for exhibition or solely for home use, will now have their buds well advanced. As the wood, in some instances, has not ripened very well this season, over-feeding now would make matters worse. Keep an even temperature, water during the forenoon, and shade slightly where some blooms are well advanced. Salvias in pots and Solanum capsicastrum must be lightly fed if the plants are pot-bound. Give these plants a light position in greenhouses and heated frames.

A. A.

LIFTING AND STORING BEETROOTS AND CARROTS.

WITH the approach of mid-autumn and the probable experience of frost in the not distant future, the thoughts of the beginner turn to the question of lifting and storing the above-mentioned roots. Many amateurs succeed in growing both Beet and Carrots quite successfully, but there comes the time when these roots have to be lifted and stored for winter use, otherwise the work of the past seasons may be rendered of little value. In the case of Beetroots they should be lifted as soon as the leaves are touched with frost, and this may be an accomplished fact at any date after the early days of October, although it may not be necessary to lift the roots until the end of this month. No time should be lost in preparing the necessary storing accommodation, so that the roots may have protection when required.

There are many places where Beetroots and Carrots may be stored quite successfully. A cool shed will answer the purpose admirably. Cellars are better, however, or, failing these, any outhouse where with a slight covering the Beetroots in particular may be protected against frosts. Those who have no such accommodation, however, may very easily make a clamp wherein these roots may have the necessary protection, and whence the grower may draw his supplies throughout the winter and succeeding spring.

On no account should the roots be pulled out of the ground, particularly where the soil is heavy and retentive in character. Beetroots

2.—METHOD OF ARRANGING BEETROOTS IN A COOL SHED, CELLAR OR OUTDOORS.

are very tender, and unless they are lifted intact the tap root may be broken or bruised. Bleeding will be the result, and as a consequence the deep colouring, which is an essential part of the Beetroot, will be spoilt. The smallest root should, if possible, be saved from damage, otherwise the sap will ooze out and leave the flesh pale. There are different methods of lifting Beetroots. In some gardens the practice prevails of first digging out the soil on one side of the row, and then, by thrusting down a spade perpendicularly on the other side, lifting each individual root in succession. Preference should be given to the use of a spade, as a fork may slip or break through the soil and pierce or damage the roots. In small gardens it is a good plan to deal with each successive root in the manner portrayed in Fig. 1. Here it will be observed the spade is inserted a few inches from the root, and the former is easily controlled with one hand. With the other hand the leaf-stalks are grasped firmly, and then with a gentle upward pressure of the spade and careful lifting with the other hand the roots invariably lift quite satisfactorily.

Carrots of the Stump-rooted and Intermediate types may be pulled up with little or no trouble, but the long-rooted kinds are lifted more satisfactorily when a spade is used. Beetroots after lifting should have their leaves twisted off a few inches above the crown. On no account should the leaf-stalks be cut through, as this causes bleeding, and the roots lose their colour in consequence. In the case of Carrots cut off the tops close to the crown.

3.—A SMALL CLAMP OF BEETROOTS ARRANGED READY FOR COVERING WITH STRAW AND EARTH.

If the roots are stored in a shed, cellar or outhouse, first place a layer of sand on the floor, and then arrange them with their crowns facing outwards. Cover each successive layer with a layer of sand, and continue in this fashion until all the roots have been properly dealt with. If the roots are stored against the walls, arrange them as just described; but when they are placed in other positions, arrange them in the manner depicted in Fig. 2. Here it will be noticed the roots are arranged alternately, the crowns pointing outwards in each case. Just cover them with sand, and continue to arrange roots and sand alternately until completed.

When making a clamp outdoors—which is a most convenient method of storing most roots—place them in a circular heap, still observing the rule of keeping the crowns pointing outwards. In many gardens the roots are also arranged in the centre of the mound or clamp, so as to store a greater quantity of them. A clamp of Beetroots outdoors when ready for the final covering is shown in Fig. 3. Their crowns are clearly visible on the outside of the clamp, and the reader can quickly appreciate the unlikelihood of damage to the roots under such conditions. They are stored in layers, as advised for storing indoors or under cover, alternately placing sand or soil and roots in even manner until the arrangement is completed. Finally, cover the clamp or mound with straw, Bracken, or any other material that will answer the purpose of preserving the roots against frost, and complete the operation by digging a trench round the clamp about 1 foot or 18 inches in diameter. Utilise the soil thus removed to cover the clamp, and in this way render it frost-proof. By these means the roots will be maintained high and dry above the ground-level. Six inches to 9 inches covering of soil suffices to exclude frost in most localities, and if the soil is made firm by using the back of a spade, rain is carried off quite successfully. D. B. CRANE.

ZONAL PELARGONIUMS IN WINTER.

The following hints will prove serviceable to beginners who have not had an opportunity to test various sorts as yet in their gardens. During the past few years some very fine new varieties have been introduced which tend to make our gardens brighter each season. That grand variety Paul Crampel has blossomed splendidly this year, notwithstanding the dull, cold and wet summer. The stems are always inclined to be soft and sappy, so that care must be taken to winter the plants in a nice dry house which can be freely ventilated. Do not overcrowd either cuttings or old plants, and make the soil very firm around the roots. Other varieties that make a brilliant show are Henry Jacoby (a lovely crimson-flowered plant), Vesuvius (rich scarlet), West Brighton Gem, Queen of the Whites, Mrs. Pollock Improved and Flower of Spring, which should all be stocked for next year's display. J. T. Hamilton is a grand double-flowering variety for both pots and beds; it is a cross between a Zonal and an Ivy-leaved, the colour being brilliant red, and it flowers freely. Raspail, a well-known double scarlet, often grown as a pot plant for winter flowering, should also be used as a bedder; and King of Denmark, a semi-double, salmon-coloured variety with remarkably handsome leaves, makes a grand display in the flower-beds during a dry summer. If the beginner will so arrange his plants throughout the winter months that they will be close to the glass but quite safe from frost, he may rely upon having a very nice, useful stock in hand when spring-time comes. If he has artificial heat at command then for propagating purposes, the tops of the tallest specimens should be inserted as cuttings, thus increasing the stock and making the older plants more sturdy. AVON.

HOW TO KEEP SPECIMEN FUCHSIAS THROUGH THE WINTER.

SPECIMEN Fuchsias not only look very charming as dot plants in the flower garden, but also in greenhouses and conservatories. It takes a period of several years to grow the plants before they can be termed fine specimens, whether trained in the form of bushes, pyramids or standards; and it is very disappointing to lose them, or even to cripple the growth during the winter season. Too often Fuchsias are thrown under the stages in plant-houses and left there unnoticed until the following spring. Many plants so treated commence to grow while they are under the stages, and such premature growth is unhealthy and useless for the foundation of the summer growth. As the plants are near (too near) the hot-water pipes and are subject to the drip from the plants on stages, the young shoots must appear very early—earlier than is desirable. The best place to keep the plants during the winter months is in a corner of a greenhouse where the temperature will remain even and never very high. Plants may, after being properly dried off, be wintered safely in a shed or store from which frost can be excluded. New growth must not be induced to appear before the month of February. B.

THE TOWN GARDEN.

PLANTING BULBS.—One of the most frequent of enquiries of the amateur concerning bulbous plants is, "What is the correct depth for planting?"; and for some years now there has been a rule-of-thumb method going around which advises the planting of all bulbous things at twice or thrice their own depth. The beginner in gardening, however, is not slow to pick out the weak points in such a piece of advice, and more than once of late have I been asked if such advice was sound and good, and generally applicable to plants of a bulbous-rooted character. Still more frequently is one asked in a naïve sort of way, that carries its own significance, whether the recommended planting depth refers to the top of the bulb or its base. To some extent the enquiry is a natural one, and the outcome of a method based on rule-of-thumb lines. It would fix the matter more definitely were it stated that the bulb should be covered by so many inches of soil, inasmuch as there is great variableness in the length of the neck of a bulb, which would render measurements very uncertain. For example, a shallow-grown bulb of a Daffodil will be seen to have a very short neck wedded to a decanter-shaped body, while a deeply buried bulb will have both a graduated body and a long, often attenuated, neck.

WHAT BEST TO DO.—In the circumstances the amateur will be pleased to learn that the planting of bulbs to certain depths is not a matter of supreme importance, the smallest of bulbs finding their way to the surface from very considerable depths. This, however, I do not advise. If, on the other hand, the amateur is desirous of securing a working basis as a general guide, he may take it that all small-rooted bulbs—Crocus, Snowdrop, Scilla and Chionodoxa—will be quite safe if planted 3 inches deep, while Tulips generally, Daffodils, Crown Imperials and other large-rooted kinds might be planted between 4 inches and 6 inches deep. These depths must always be accepted to mean the ground-level on which the base of the bulb rests. Even with the kinds I have named circumstances sometimes arise which render a modification of these planting depths a necessity, such as very light or quite heavy soils, when an increased depth in the case of the former and a diminished depth in the case of the latter will be found to work well.

BULBS IN POTS.—Having said so much, the more enquiring of amateurs may want to know why pot-grown bulbs are planted so near to the surface. Such an enquiry would be most reasonable. Pot-grown bulbs deeply buried remain long uninfluenced by artificial heat and surroundings, while all early forced bulbs, such as Duc Van Thol Tulips, Roman Hyacinths and others that are driven into flower far in advance of their season, lose not a little of their stature. Hence the need for shallow planting to preserve all the stem possible, which, in conjunction with plunging in pots in fibre or in ashes, promotes the attenuated stem growth in these which is so much to be desired, and which also greatly adds to their decorative value.

BULBS IN BOWLS.—The fashion of growing bulbous plants in bowls has attracted a large number, and those who have seen the well-grown collections of these plants at the spring meetings of the Royal Horticultural Society have been fascinated by their charms and by the success attained. It does not follow, however, that

4.—A SMALL CLAMP OF BEETROOTS COMPLETED FOR THE WINTER.

there have been no failures, and there are pitfalls for both the amateur and the professional. The former most frequently errs because of undue haste, and more particularly by planting the bulbs and introducing them forthwith into the sitting-room, where the deleterious effects of fire, gas and the arid conditions generally are opposed to success. In the cultivation of bulbs in bowls, a period of preparation equivalent to that of plunging when the bulbs are pot-grown is essential, and is best secured, perhaps, by placing them for a few weeks in a cool, dark cellar or shed, where the naturally moist, uniform conditions will be much more to their liking. E. H. JENKINS.

CLASSIFICATION OF SWEET PEAS.

THE following is an up-to-date selection of varieties *in commerce*, drawn up by the floral committee of the National Sweet Pea Society. Except where otherwise stated, the three first varieties are in order of merit. * Indicates a grandiflora variety; all the others are waved.

Bicolor.—Arthur Unwin, Mrs. Andrew Ireland and Colleen.

Blue.—Flora Norton Spencer, Mrs. G. Charles and *Lord Nelson.

Blush.—Mrs. Hardcastle Sykes and Princess Victoria.

Cerise.—Cherry Ripe, Chrissie Unwin and *Coccinea.

Cream, Buff and Ivory.—Clara Curtis, Paradise Ivory and *James Grieve.

Cream Pink.—Mrs. Hugh Dickson, Gladys Burt and Constance Oliver.

Crimson.—King Edward Spencer and *King Edward VII.

Fancy.—*Sybil Eckford.

Lavender.—Masterpiece, Asta Ohn, Frank Dolby and *Lady Grisel Hamilton.

Lilac Shades.—Mrs. R. H. Carrad.

Magenta.—Menie Christie.

Marbled.—Helen Pierce.

Maroon.—Nubian, Othello Spencer, Tom Bolton and *Hannah Dale.

Mauve.—Tennant Spencer, Helio-Paradise and *Mrs. Walter Wright.

Orange Pink.—Helen Lewis and *Miss Willmott.

Orange Scarlet.—Dazzler, Edna Unwin and St. George.

Picotee Edged (*Cream Ground*).—Mrs. C. W. Breadmore and Evelyn Hemus.

Picotee Edged (*White Ground*).—Elsie Herbert, Mrs. Townsend and *Dainty.

Pink and Salmon Pink.—Countess Spencer, Zarina and *Prima Donna.

Rose and Carmine.—John Ingman, Marie Corelli and *Prince of Wales.

Salmon Shades.—Earl Spencer, Nancy Perkin and *Henry Eckford.

Scarlet.—Doris Burt, George Stark (1908 medal stock) and *Queen Alexandra.

Striped and Flaked (*Purple and Blue*).—Suffragette and *Prince Olaf.

Striped and Flaked (*Red and Rose*).—America Spencer, Aurora Spencer and *Jessie Cuthbertson.

White.—Etta Dyke, Nora Unwin and *Dorothy Eckford.

TOO-MUCH-ALIKE VARIETIES.

The following varieties have been bracketed as too much alike. "Not more than one of the bracketed varieties shall be shown on the same competitive stand at any exhibition of the National Sweet Pea Society." The names are placed in alphabetical order.

Blue.—Anglian Blue, Flora Norton Spencer, Kathleen McGowan, Shawondasee and Zephyr.

Blush.—Bobby K., Countess of Northbrook, Florence Morse Spencer, Mrs. Hardcastle Sykes, Princess Victoria.

Blush Spencer, Lady Althorp, Mrs. T. G. Baker, Paradise Regained and Sankey Spencer.

Chocolate Flaked.—President, Senator Spencer and W. R. Beaver.

Cream Pink.—A. B. Bantock, Earl of Plymouth, Holdfast Belle, Mrs. Henry Bell, Mrs. Hugh Dickson, Mrs. Routzahn, Queen (Sutton's), Romani Rauni, W T. Hutchins.

Constance Oliver and Nell Gwynne.

Cream Pink (*Deep*).—Anglian Pink, Doris Usher, Miriam Beaver, Mrs. R. Hallam and Syeira Lee.

Crimson.—Dodwell F. Browne, G. C. Waud, King Alfonso, King Edward Spencer, Paradise Crimson, Rosie Gilbert, Sunproof Crimson, Sunproof King Alfonso and The King.

Ivory.—Paradise Beauty, Paradise Ivory, Queenie and Sea Foam.

Lavender.—Asta Ohn, Frank Unwin, Masterpiece, Mrs. Chas. Foster and Mrs. E. Noakes.

Magenta.—Menie Christie and Mrs. Charles Mander.

Maroon.—Anna Lumley, Black Knight Spencer, Douglas Unwin, Dusky Monarch, Maroon Paradise, May Gerhold, Nubian, Othello Spencer, Silas Cole and Tom Bolton.

Mauve.—Amethyst, Empress, Helio-Paradise, Ida Townsend, Mrs. Walter Wright Spencer, Queen of Norway, Tennant Spencer, The Marquis and Wenvoe Castle.

Orange Pink.—Anglian Orange, Edrom Beauty, Helen Grosvenor, Helen Lewis and Maggie Stark.

Orange Scarlet.—Dazzler, Edna Unwin, Gordon Ankentell, Ruby (Aldersey), St. George and Thos. Stevenson.

Picotee Edged (*Cream Ground*).—Evelyn Hemus and Mrs. C. W. Breadmore.

Picotee Edged (*White Ground*).—Dainty Spencer, Distinction, E. J. Deal, Elsie Herbert, Picotee and Winifred Deal.

Pink.—Countess Spencer, Enchantress, Paradise and Pink Pearl.

Red Flake.—America Spencer, Lizette Lumley, Mrs. Wilcox, Paradise Red Flake, Uncle Sam and Yankee.

Rose and Carmine.—Albert Gilbert, Lady Farren, Marie Corelli, Marjorie Willis, E. J. Castle, George Herbert, John Ingman, Mrs. W. King, Paradise Carmine and Spencer Carmine.

Salmon.—Earl Spencer, Nancy Perkin and Stirling Stent.

Salmon Flake.—Magnificent and Mrs. W. J. Unwin.

Scarlet.—Doris Burt, George Stark and Scarlet Monarch.

White.—Etta Dyke, Freda, Moneymaker, Nora Unwin, Paradise White, Purity, Snowflake, White Spencer and White Waved.

Yellow and Buff (*Grandiflora*).—Harold James Grieve, Mrs. Collier, Mrs. A. Malcolm, Safrano and Yellow Hammer.

Yellow and Buff (*Waved*).—Clara Curtis, Giant Cream Waved, Mrs. Miller, Paradise Cream, Primrose Paradise, Primrose Spencer, Primrose Waved, Princess Juliana and Waved Cream (Malcolm's).

THE EDITOR'S TABLE.

SINGLE DAHLIAS FROM ESHER.

Mrs. George Bird, The Orchard, Esher, sends flowers of single Dahlias, among which there are some very delicate colour shades, although the form and substance of the flowers leave something to be desired. The orange-coloured variety is quite fragrant, the perfume reminding us of Primroses. Mrs. Bird writes: "I send these single Dahlias for your table, though, unfortunately, an early frost has touched them. Those with dark foliage I have grown for some years; the orange, sweet-scented variety I raised from seed this year, also the other single sorts, and they have been most useful and decorative, both for house and garden, and are of the easiest possible culture."

PENTSTEMONS FROM HAWICK.

From John Forbes Hawick, Limited, we have received a very handsome box of Pentstemons. The spikes of bloom are evidently cut from well-grown plants; each spike bears a profusion of flowers. A very wide range of colour is provided by the different varieties, and some of the newer varieties are of most pleasing shades, from deep maroon to soft rose and white. The new varieties are certainly a great improvement on the old strain, from which they have been selected. There seems to be a great future for those varieties having clear white throats, and two of the best of this type from the selection before us are Garth and Comte Zeppelin, both with very large flowers, bright vermilion and purple respectively. A promising novelty named Louis Paulhan has maroon crimson flowers. One of the most dainty in light shades is named Jessie, the flowers of which are creamy white, with a faint rose edge; it is really a picotee. The most remarkable feature about these flowers is that they are sent from Scotland so very late in the year, a point that clearly denotes the hardiness of the strain.

SWEET PEAS FROM COLDSTREAM.

Mr. James D. Logan, Castle Law Gardens, Coldstream, sends us under date September 28 a magnificent collection of Sweet Peas. These flowers were almost equal to the best that we see during the summer months, possessing great depth of colour and good substance, with long, stout stems. The varieties included such as Miriam Beaver, Tennant Spencer, Tom Bolton, Clara Curtis, Mrs. Hugh Dickson, Marjorie Willis, Constance Oliver, Mrs. Hardcastle Sykes, Evelyn Hemus and Helen Lewis.

A BEAUTIFUL HELIOTROPE FROM NORFOLK.

Mr. T. Jannoch, Lily Nursery, Dersingham, Norfolk, sends us flower-trusses of a beautiful violet blue Heliotrope, these measuring about 6 inches in diameter and possessing very sturdy stems. Mr. Jannoch writes: "I enclose a few blooms of a Heliotrope for your inspection. Its name is Frau G. von Poschinger. I consider it one of the best Heliotropes I have seen; some of the heads I measured during the summer were 7 inches to 8 inches across. The habit of the plant is sturdy, dwarf and compact, and massed in beds the plants are a grand sight. The continual rains here have spoiled the blooms, but you will be able to form an idea of what they are like when at their best."

INTERESTING FLOWERS FROM SUSSEX.

Mr. J. Comber, Nymans Gardens, Handcross, Sussex, sends a most interesting collection of rare or little-known flowers with the following note: "Among the flowers sent are the only two species of Sollya, viz., S. heterophylla (the Australian Blue Bell Creeper) and S. parviflora. The latter is the most ornamental. Its peculiar thread-like stems and minute leaves are studded with brilliant blue flowers from May to October, and always attract attention. S. heterophylla has irregular-shaped foliage and bears drooping cymes of bell-shaped blue flowers. It has not proved hardy in Sussex when planted against a south wall. Both, however, succeed in a cool house with sufficient fire-heat to exclude frost. Their twining stems ascend to a height of 9 feet to 12 feet, and, as they exclude but little light, they are very suitable for planting against the sides or ends of a greenhouse. Sollyas should be provided with good drainage and a compost of peat, loam and sand. Prune in winter, thinning the numerous stems and selecting the most vigorous to tie in. When the plants have filled the space allotted to them, it is necessary to cut back the shoots at varying heights to ensure new growth all over the plant. During the summer months the plants should be syringed once a day. A spray of Cestrum Smithii is enclosed to show to what a beautiful pure pink colour the blossoms of this plant attain. It flowers continually. Escallonia organensis is not hardy in Mid-Sussex, though it might prove so near the coast. It has glossy leaves, rather soft wood, and the dull rose pink flowers are borne in terminal clusters."

INTERESTING FLOWERS FROM SCOTLAND.

Dr. McWatt of Morelands, Duns, N.B., sends a further collection of flowers, which for the time of the year are of unusual interest. The collection consists of Primulas in great variety. Some of them are quite new to us, and are apparently the result of crossing well-known species and varieties. Blue Polyanthuses and Primroses are particularly good. In addition to the Primulas we have received Delphiniums, Phloxes and Pentstemons in great variety.

SWEET PEAS FROM ABERDEEN.

The Rev. C. Gordon Mackenzie, Manse of Methlick, Aberdeen, sends some very beautiful Sweet Peas with the following note: "I am sending you a sample of my Sweet Peas, as they are now near the end of the season. I grew this year, for comparison, sixty-four varieties, and had a fine show. I read with interest the discussion as to whether the Sweet Pea is now overrated, which appeared in THE GARDEN a few weeks ago. Is not there a greater danger in the overrating of particular varieties of Sweet Peas? No one need trouble to show anything now but the biggest of the big waved varieties. Every other kind is 'cast as rubbish to the void'; at least, all else is so much rubbish in the eyes of judges. A variety like Queen of Spain, for instance, is nowhere, however perfect of its kind the blooms shown may be. Colour and arrangement do not matter; just the size and the curl! Exquisitely delicate they undoubtedly are in their gauzy beauty; but why turn a blind eye to the loveliness of their 'forbears,' which are plainer, no doubt, in form, but richer and deeper in colour and sweeter in perfume? Is it not somewhat like a preference for the modern artificiality seen in 'transformations' as against the beauty unadorned in the more natural arrangement of female locks of old?"

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant*

FLOWER GARDEN.

Hardy perennials from autumn-sown seeds (*C. M.*).—Seeds of the above sown so late as the present time not infrequently lie dormant till the ensuing spring; hence there would be no possibility of their flowering during the summer of 1911. To ensure this the seeds should be sown in the early spring of the preceding year. All large-seeded kinds may be sown thinly in the open in drills and transplanted as soon as possible. The soil should be well prepared and finely broken down, covering the seeds but lightly. Lupines, Lychnis, Eryngiums, Campanulas, Gaillardias, Cornflowers, Achilleas, Heleniums, Coreopsis, Perennial Pea, Michaelmas Daisies, Heliopsis, Alstrœmeria, Primula japonica, P. denticulata and Galega are a few of the many that succeed if sown in the open. The position should be uniformly cool.

Iris reticulata (*J. G. K.*).—The bulbs of this lovely Iris are often attacked by a fungus (Mystrosporium adustum) which completely destroys them in the way you mention, leaving nothing but the husk, and which, with the soil, should be consumed by fire. Soaking the bulbs for two hours in a solution of formalin, one part to three hundred parts of water, is said to destroy the fungus so long as this is external. If it has penetrated the bulb, there is no cure. The fungus at first appears as a black mould on the outer coats of the bulbs.

Treatment of Kochias (*Anxious*).—Kochia scoparia or tricophila is of annual duration, and must therefore be raised every year from seeds. These are readily obtained from dealers, and should be sown in a gentle heat in March or April, pricking out the young plants when large enough to handle, and afterwards potting them singly into small pots or planting them in their permanent quarters. The seed should be sown in a mixture of loam, leaf-mould and sand, and the pots or pans must be effectually drained, as the seeds are sometimes rather slow in germinating and stagnant moisture is decidedly injurious to them.

Hardy flowers in July and August (*L. G. B. C.*) We are not sure whether by the term "hardy flowers" you mean perennials only or these and annuals together. Of perennials in the colours named, Aster Amellus in variety, Anchusa italica Dropmore variety, A. Barrelieri, Erigeron speciosus, Echinops Ritro, Eryngium oliverianum, Dracocephalum ruyschianum, D. japonicum, Delphinium Belladonna, Campanula Hostii, C. pyramidalis, C. carpatica, C. persicifolia, Stokesia cyanea præcox, with many Delphiniums, occur in the blue and allied shades, though many of these could not be regarded among "bright blue" flowers. Delphinium chinensis and Asters, of course, give good blue shades, but are not perennial. In Pentstemons, Antirrhinums, Old Clove Carnations, Gladioli, Phlox Flambeau, P. coccinea and Helenium Riverton Gem you will find approaches to crimson, the annual Scabiosa providing shades of this colour-tone too, which, however, is by no means plentiful.

THE GREENHOUSE.

Climbers for conservatory (*Handsworth*). The following is a good representative selection of climbers for the purposes named by you. For pillars—Plumbago capensis, blue, flowers throughout the summer; Habrothamnus aurantiacus, orange, autumn; H. elegans, red, spring and summer; Hibbertia dentata, yellow, early months of the year. In addition to the flowers this has pretty bronzy foliage. For trellis—Bougainvillea glabra sanderiana, purple, summer and autumn; Clematis indivisa, white, spring; Passiflora Imperatrice Eugenie, purplish, summer; Lasiandra macrantha (syn. Tibouchina semi-decandra), late summer and early autumn, saucer-shaped blooms, 4 inches across, of the richest purple; and Lantana salviæfolia, largely grown in parks and gardens as Lantana delicatissima. This is seldom grown as a climber in the greenhouse, yet it is one of the most beautiful of all and must on no account be omitted. At Kew it forms an annual feature in the greenhouse, flowering as it does in great profusion from early spring to late autumn. Under glass the flowers are somewhat paler than when exposed to sun and air in the open ground.

Chrysanthemum shoots for examination (*E. R. B.*).—There is no insect or fungus pest on the plants sent. They have been injured by some other cause quite apart from these, and the symptoms might have been produced by such causes as an overdose of liquid manure, some liquid thrown over them, or even by a cold draught after a hot day.

Veronicas in large pots (*J. E. C.*).—Your better plan will be to leave the Veronicas as they are till early spring and then prune them into shape. At that season they will quickly push out new growth and soon recover from the cutting back. If done now, the new shoots will be of a weakly nature, and even in spring will not grow so freely as those produced by newly cut back plants.

Begonia shoots for inspection (*A. Houghton*).—We could find no eelworms among the roots sent, though we cannot be quite sure of their absence, as the material was in a bad state for examination. From what you say, however, we should think some other cause is at work, resulting in the death of the roots. Is the water used above suspicion, and is there any question about the drainage supplied, or the openness of the soil, or the nature of the leaf-soil used in making up the compost?

Geraniums (*C. M.*).—These plants, which are, strictly speaking, Zonal Pelargoniums, and not Geraniums at all, cannot be satisfactorily wintered in a room where gas is used for lighting. An unused room excluding frost would be far better. At all times the old plants winter badly in such circumstances unless kept very dry, and a better way would be to root cuttings in August in pots in the open and endeavour to winter these. In the majority of cases both old and young plants of these are killed by excessive supplies of moisture at a time when none practically is wanted. Old-established plants in pots may be wintered quite well if kept moderately dry at the roots.

ROSE GARDEN.

Rose diseased (*H. B.*).—The Rose is attacked by the fungus Actinonema rosæ. As far as possible fallen leaves should be collected and burned, and the spread of the disease may be checked to some extent by spraying with Bordeaux mixture. It is a difficult disease to combat, and it would be well to start spraying early next season, so as to put off the commencement of the trouble.

New Roses for exhibition (*F. G. F.*).—Some of the best of the newer Roses that are good for exhibition, excluding those you possess, would be Commander Jules Gravereaux, Cynthia Forde, Dr. O'Donel Browne, George C. Waud, His Majesty, John Cuff, Margaret, Mrs. Arthur Munt, Mrs. Walter Easlea, Mrs. E. J. Holland, Walter Speed, White Killarney, Lady Ursula, Melanie Soupert, Molly Sharman Crawford, Mrs. Hubert Taylor, W. R. Smith, Nita Weldon, Ethel Malcolm, Mrs. Maynard Sinton, Claudius, Mrs. Foley Hobbs and Mrs. Arthur E. Coxhead. Some of the older sorts which you do not mention, but which are first-rate show varieties, are Hugh Dickson, William Shean, Dean Hole, Mrs. Theodore Roosevelt, Gustav Grunerwald, Queen of Spain and Mrs. H. Brocklebank.

Mildew on Rose foliage (*E. T.*).—The foliage you send is badly affected with mildew, owing perhaps to the variety, some Roses being much addicted to the fungus, but it may be that the roots require water. When Roses are growing against walls they should be watered twice a week during the summer, not given a mere sprinkling, but a good, copious supply. We advise you to do this now, and if the surface is hard just break it up with a fork. You can check the mildew by syringing with a solution of Jeyes's Cyllin Soft Soap at the rate of 1oz. to a gallon of water, and repeat the application every three or four days.

Dark Roses for exhibition (*W. Kitley*).—Avoca is a splendid show Rose for a cool season. It has been grandly exhibited this year. Etoile de France would be of no use. It is a very erratic Rose, now and then very fine, but more often worthless as an exhibition variety. Rev. D. R. Williamson is fair. You should add His Majesty, Commander Jules Gravereaux, Gloire de Chedane Guinoisseau, Commandant Felix Faure, Hugh Dickson, Mrs. Walter Easlea and Victor Hugo. These are all first-rate Roses, some of them quite new, but really good.

FRUIT GARDEN.

Pears cracking (*P. Wilts*).—This may be caused by more than one agency, but one of the most frequent causes of cracking in Pears is due to a fungoid attack (Fusicladium pyrinum). This fungus grows on the leaves and young twigs of the tree, and also on parts of the flowers, preventing the fruit from setting properly, thus crippling their growth, which renders them practically valueless by reason of the cracking of the skin. The best remedy to adopt is to burn all the leaves as they fall and spray the trees immediately afterwards with Bordeaux Mixture, and again in spring just before the flower-buds burst open. This is, no doubt, the best of all fungicides, and may be obtained cheaply, ready mixed, from seed merchants and garden sundriesmen advertising with us, with directions how to use.

Raspberries not swelling (*Berks*).—The Raspberries appear, as you say, to have been imperfectly fertilised; but without examination of the flowers it would be impossible to say what the cause of the infertility is. As you find other varieties of Raspberry doing well, would it not be better to discard this? The weed is one of the Mulleins, Verbascum Thapsus.

Pippin Apples (*J. Beharrel*).—Our correspondent asks, "Are all Pippin Apples dessert Apples?" No, not necessarily. Cellini Pippin, for instance, is a kitchen Apple, but the following Pippins are all dessert: Allington, Blenheim Orange (dessert or kitchen), Cockle, Cox's Orange, Ribston, Baddow, King of the Pippins, Langley, Norman Sturmer, Summer and Venus.

KITCHEN GARDEN.

Diseased Potato (*H. T. B.*).—The Potato tuber sent shows the black scab disease, as it is called, in a very bad form. Its specific name is Chrysophlytis endobiotica, but that does not help to its cure. The wisest course whenever this disease is seen in a Potato crop is to most carefully lift all the tubers, however small, and destroy them by burning. In no case should Potatoes be planted in the same ground for several years. Get fresh seed tubers to plant elsewhere next year from an entirely different source. This disease is scheduled by the Board of Agriculture, and the local inspector or authorities should be made aware of its existence. If in quite a small way, no harm may be done if our advice is at once followed. There seems to be no cure for it, although it is asserted that seed tubers, if flowers of sulphur is rubbed into them, may be saved from the disease. Happily it is not at all common. Soil from which the crop is lifted should in November be dressed with gas lime, a bushel per rod, well spread about for a month, then dug in.

Celery for inspection (*H. F.*).—The Celery is very badly attacked by the fungus Septoria petroselina apii. This fungus is proving a very serious pest of Celery all over the country, and care should be taken to remove all the affected leaves and burn them at once. Also remove and burn all the refuse from the Celery; do not throw it on the rubbish-heap. The affected leaves are easily seen by the little brown spots with black dots upon them. To protect the Celery which at present remains unaffected, spray it with Bordeaux mixture or with potassium sulphide, 1oz. to two gallons of water, but the former is the better.

Cucumber plants diseased (*I. A. P.*).—The Cucumber plants are attacked by eelworms, which are destroying the roots and causing the leaves to flag. It would probably be best to clear out the whole lot, soil and all, and burn everything. New soil in properly cleansed pots, clean crocks, a properly disinfected potting-bench and so on, destroying all the places where the pest is likely to lurk, and sterilisation of the soil are the only things which are likely to destroy the pest entirely. You might persist with a soil fumigant, but that is of little use when the pest has gained an entrance. A good disinfectant for the purpose named is Clubicide.

MISCELLANEOUS.

Planting bed and border (*Novice*). — You might plant the bed with Emperor, Sir Watkin and Poeticus ornatus Daffodils and some May-flowering Cottage Tulips, to be followed by white Madonna Lilies in early summer, and scarlet and white Phloxes a little later. In the border, Pentstemons, Violas, Irises of sorts, Larkspurs (say, a dozen distinct varieties), with Alstrœmerias, Pyrethrums and Potentillas would give a good succession of bloom. If room still remained, a few of the dwarfer Michaelmas Daisies could be planted. Asters and Stocks, among annuals, should not be overlooked. A white-flowering plant for the wall would be Jasmine, and climbing Roses for the house would be Cheshunt Hybrid and Gloire de Dijon.

Carnation diseased (*O. K.*).—The plants are suffering from a disease known as Bacterium Dianth., the only known remedy being that of keeping the plants dry overhead. You should, in addition, collect the diseased portions of the leaves and burn them. We are pleased to know that you find THE GARDEN of so much service.

Treatment of Mimulus plants (*S. T.*).—The plants of Mimulus are not likely to survive the winter out of doors in your district; hence some amount of protection will be necessary. A very good plan will be to lift them carefully and lay them in a box of soil, keeping them throughout the winter in a frame where they will be safe from frost A hand-light, as mentioned by you, will suffice, but it will need to be covered up in the event of sharp frost, as in such a small space the soil freezes nearly as readily as it does outside. The plants may be lifted as soon as the foliage gets shabby.

Keeping a small garden pond clean (*Erin*).—The presence of the gold-fish precludes treating the water with the sulphate of copper solution usually applied to keep pond weeds in check, and which is also fatal to plant-life. Hence skimming or raking out and overflowing the pond, if possible, occasionally to get rid of it are about the only remedies you can adopt. A canvas net or sieve will secure most of the finer particles, while a rake will usually keep the stronger-growing weeds in check. If you could empty the pond and clean it out, a gravel bottom would help in the matter for some time to come.

Flies for inspection (*Mrs. G. C. G.*).—When the caterpillars were alive a little fly, similar to those you send, laid its eggs in their bodies, and the larvæ which hatched from these eggs fed on the materials inside the caterpillar without at first touching a vital part. The larvæ about the time the caterpillars should have become chrysalides finished feeding inside the caterpillars, and then came out and spun little yellow cocoons for themselves in masses in the jar. These cocoons form conspicuous objects near the feeding-places of the Cabbage white butterfly every year. The pupæ of the little flies have now hatched out, and the numerous flies are ready to attack other Cabbage white butterfly larvæ. The flies are known as ichneumon flies, and are nearly related to the bees and wasps, but are all parasitic upon insects and allied animals, the particular species you send being called Microgaster pieridis. These ichneumon flies are to be regarded as friends of the gardener, and to them he has to look as the chief means of keeping in check many of the pests that affect his plants.

Prices for working ground (*C. F. B.*).—Labour of the kind you need varies in different districts; but in your somewhat suburban locality we think an ordinary labourer for digging ground 12 inches deep would expect to earn 4s. per day of ten hours' labour. Probably, for good work, his charge would be 5d. per pole or rod. There are about 280 square feet in a rod, and in digging this a man would have to use his spade in fully 600 turns; thus you can see how great is the bodily labour involved in properly digging a rod of ground. Adding the manure dressing, all taking time, should add 3d. per rod to the cost, and bastard trenching, with the manuring, would cost 1s. 6d. per rod, while double trenching, with manuring, should cost 2s. per rod. If the work were done in the latter way, exclusive of cost of manure, the labour would cost at least £16 for the acre; but, having regard to the immense benefit that would result to land and crops, that sum should be amply repaid the first year. You will be wise to have the ground bastard or half trenched, and also manured, only at first reserving the deeper working for a few years later.

Names of fruit.—*Walter de H. B.*—B, Lemon Pippin; 1, Lord Suffield; 4, Warner's King; 5, Oslin; 10, Worcester Pearmain; 14, Sandringham; 17, Margil; 23, Hereford Beaufin; 38, Cornish Gilliflower; 41, Lord Raglan; 50, not recognised, too poor; 60, Yellow Ingestre; 62, Keswick Codlin; 81, Nelson's Codlin; 84 and 94, Yorksbire Beauty; 85, Duchess of Gloucester; 87, Lemon Pippin; 88, Irish Peach; 100, New Hawthornden; 138, King Harry.——*A Constant Reader.*—1, Newton Wonder; 2, Pineapple Russet; 4, Braddick's Nonpareil; 5, Allington Pippin; 6, Lane's Prince Albert; 7, Cox's Pomona; 8 and 9, Adam's Pearmain; 10 and 12, Beauty of Kent.——*H. Edmund Jenkins.*—The scarlet-fruited form of the Siberian Crab (Pyrus baccata).——*C. Phipps.*—A, Ecklinville Seedling; B, Yorkshire Beauty.——*A. H.*—1, Peasgood's Nonsuch; 2B, Worcester Pearmain.——*W. F. H.*—1, Cox's Pomona; 2, Bismarck; 3, Wellington; 4, Gold Medal; 5, Warner's King; 6, Newton Wonder; 7, King of the Pippins; 8, Boston Russet; 9, Tyler's Kernel.——*M. H. H.*——Belle de Louvain.——*Ejected.*—1, Golden Spire; 2, Cox's Pomona; 4, Sandringham; 5, Lord Derby; 6, Bramley's Seedling; 7, Warner's King; 8, Claygate Pearmain.——*D. J. Stewart.*—1, Lady Sudeley; 2, Oslin.——*C. B. E.*—Lady Henniker.——*J. E. R.*—Pear not recognised.

Names of plants.—*Mrs. R. Ford.*—Aster amelloides (large) and A. diffusus var.——*J. Kent.*—1, Nephrodium Filix-mas; 2, Scolopendrium vulgare; 3, Cupressus (specimen too poor to recognise); 4, Acer Negundo variegata; 5, Lonicera Periclymenum var.; 6, Campanula isophylla alba; 7, Rose, not recognised; 8, Lychnis coronaria; 9, Begonia weltoniensis; 10, Tritoma Uvaria; 11, Rudbeckia speciosa; 12, Corydalis lutea.——*E. L. Newom.*—The grey-leaved plant is Cineraria maritima; the other is Monarda didyma. —— *Constant Reader.*—Solidago canadensis and Hieracium aurantiacum.——*A. H. Warrington.*—A variety of Salvia splendens.——*T. Y.*—The shrub is Leycesteria formosa. Roses: Blush, Irene Watts; red, Ulrich Brunner; salmon and white, Viscountess Folkestone.——*G. B. Ponty.*—Saxifraga aizoides (small); others not recognised, send better specimens.——*L. M. J. M.*—Probably Rhodochiton volubile.——*C. T., Devon.*—Zonal Pelargonium Beauty.——*Cam.*—1, Cupressus macrocarpa; 2, Juniperus virginiana; 3 and 4, J. chinensis; 5, Cupressus leptocladus; 6, Juniperus species (not recognised); 7, Thuya orientalis; 8, probably Cupressus sempervirens.——*J. E. R.*—1, Nephrolepis Piersonii var.; 2, Adiantum gracillimum; 3 and 4, A. cuneatum vars.; 5, A. Capillus-veneris; 6, Pteris serrulata cristata; 7, Manettia bicolor.——*S. X.*—1, Helenium autumnale striatum; 2, common Purple Loosestrife (Lythrum Salicaria); 3, Deciduous Cypress (Taxodium distichum).——*T. H. D. P., Okehampton.*—1, Hypericum hookerianum (?); 2, H. Androsæmum; 3, H. elatum; 4, Cotoneaster microphylla; 5, C. horizontalis; 6, Erigeron multiradiatus. All those sent were so poor and difficult to identify that the above names are as near as one can get with such specimens.——*Fair City.*—Calceolaria mexicana.

SOCIETIES.

REDHILL AND REIGATE GARDENERS' ASSOCIATION

THE first meeting of the winter session of the Redhill, Reigate and District Gardeners' Mutual Improvement Association was held in the Penrhyn Hall on the 27th ult. The chair was taken by Mr. T. W. Herbert, supported by Mr. W. Rose (hon. secretary). A letter was read by the secretary from Mrs. Cooper expressing her thanks to the members for the sympathy shown her during her sad bereavement. Eight new members were enrolled. The first meeting of the season is always made a "hospital night," an exhibition of flowers, fruit and vegetables being held, these afterwards being sent to the hospital. There was a very good attendance, and the exhibits were both numerous and fine in quality. The donors included Lady Henry Somerset, Sir Jeremiah Colman, Bart., D.L., J.P., Mrs. Campion, Canon A. H. Barwell, Messrs. M. Marcus, J. Auerbach, A. Walker, J. Welch, W. Freshfield, J. Charlesworth, J. A. Scrimgeour, W. Wells, W. Phillips, R. Gough, A. L. Lawrence and W. Dodd. Mr. G. Duncan of Merstham House Gardens gave a most instructive address on "Vegetable Culture," and said he hoped that the time would come when the exhibition of vegetables would take the place of Orchids at the large shows. A very keen discussion followed, in which many members took part. The evening closed with a vote of thanks to Mr. Duncan for his lecture.

NATIONAL CHRYSANTHEMUM SOCIETY.

THIS society held its exhibition of early flowering Chrysanthemums at the Crystal Palace on October 5 and 6. The whole of the south nave of the building was filled with stands of Chrysanthemums, including many fine boards of exhibition blooms, which we were hardly prepared to see at such an early date. Decorative varieties formed the leading feature of the exhibition, and some new varieties of great promise were granted awards. The single-flowered varieties were, however, very weak, which is rather surprising when we consider the fine sorts now to be obtained and the ease with which they may be grown.

OPEN CLASSES.

One of the strongest classes was that for twelve blooms of Japanese, distinct, shown on boards. The first prize was gained by E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson). The following blooms were shown on this stand: Lady Talbot, Captain Mitford, Mrs. L. Thorne, Master James, Mary Farnworth, Mrs. F. C. Stoop, Mrs. A. T. Miller, C. H. Totty, Francis Joliffe, Blanch de la Clocque, Mr. H. D. Thornton and Henry Paulton. The second prize went to Miss Langworthy, Gays House, Holyport (gardener, Mr. T. J. Broom); and the third to E. Wormald, Esq., Grass Farm House, Finchley, N. (gardener, Mr. J. Hickwood). In all three stands the grand white form of Mrs. A. T. Miller was very conspicuous.

The class for six blooms of Japanese, distinct, was won by Alfred F. Blades, Esq., Reigate (gardener, Mr. F. Cordell). The blooms of Mrs. L. Thorne and Mrs. George Mileham were particularly good. The second prize went to W. H. Stone, Esq., Sydenham (gardener, Mr. T. W. Stevens).

Early flowering Pompons were well represented, and the class for twelve bunches was won by Mr. J. Smellie, Pansy Gardens, Busby, near Glasgow The second place was secured by Mr. G. Bowness, also of Busby.

For a floral display of Chrysanthemums and foliage plants in pots, Lady Tate, Park Hill, Streatham (gardener, Mr. W. Howe), gained the premier place with a grand lot of exhibition blooms intermingled with Croton and Bamboo foliage. The second place was secured by Mr. Frank Brazier of Caterham.

There were only two entries in the class for three epergnes of Chrysanthemums. W. H. Stone, Esq., Donnington, Sydenham (gardener, Mr. T. W. Stevens), and Mrs. Brewster of Canterbury were first and second respectively.

Mr. G. Bowness of Busby gained the first prize for twelve bunches of Chrysanthemums grown in the open and not disbudded. The pink variety Hector was shown in splendid form.

Class 17, for one vase of three Japanese blooms, brought keen competition. The first prize went to Mr. T. Stevenson for a very fine vase of Master James, closely followed by Mr. A. Smith, gardener to Mme Stuart, The Convent, Roehampton, who put up a grand vase of White Queen.

Mr. J. Emberson, Grove Road Nursery, Walthamstow, gained first place for six bunches of early flowering Japanese or decorative varieties. This class was well contested. The second and third places were secured by Mr. Frank Brazier and Mr. G. Bowness respectively.

Mr. Bowness was also successful in the class for one vase of early flowering singles with suitable foliage, with Mr. Emberson of Walthamstow and Mr. Frank Brazier closely following.

The classes for early flowering singles were not as strong as might have been expected. For one vase of yellow or bronze, Mr. G. Bowness, Busby, secured first place, with Mr. Frank Brazier second. In a similar class for any colour other than yellow or bronze the positions were reversed.

Mrs. A. Robinson, Park Hill, Carshalton, arranged a dinner-table with bronze and white Chrysanthemums and scarlet Rose heps, trailed with Ampelopsis and Asparagus plumosus.

AMATEURS' CLASSES.

There were five entries for one epergne of Chrysanthemums for table decoration, and the first prize was awarded to Mrs. W. Maslin of Addlestone, Surrey, for a pretty combination of bronze and white flowers. Mr. C. Fox of Tunbridge Wells was placed second.

Mr. Fox was successful in the class for one vase of Chrysanthemums suitable for table decoration, and he also secured first place for three vases of early flowering varieties with Horace Martin (yellow), Roi des Blancs (white) and Goacher's Crimson—a splendid trio. J. Chapman, Esq., Melrose, Sydenham (gardener, Mr. Webb), came second.

The class for a hand-basket of autumn foliage and berries brought some very artistic work. The first prize was won by Mrs. Brewster, St. Peter's, Canterbury.

NURSERYMEN.

An exceptionally fine display of Michaelmas Daisies or perennial Asters was staged by Messrs. H. J. Jones, Limited, Lewisham. The foreground was occupied by flowering sprays of early Chrysanthemums. Large gold medal.

A large gold medal was awarded to Mr. Norman Davis of Framfield, Sussex, for a large display of Chrysanthemums of first-rate quality. The group contained a fine stand of David Ingamells, a new exhibition yellow.

Messrs. Wells and Co., Merstham, staged a collection of early Chrysanthemums. The centre of the group was occupied by large exhibition blooms of White Queen. The collection was awarded the society's large gold medal. It included some good single Chrysanthemums and over 60 feet run of herbaceous plants.

Messrs. Hobbies, Limited, gained a large gold medal for a bank of Pæony-flowered Dahlias and for a collection of autumn Roses.

The society's gold medal was awarded to Mr. Frank Brazier of Caterham for a group, 50 feet in length, of perennial Asters, Phloxes, Pentstemons and Chrysanthemums, with autumn tints of Ampelopsis in the background.

An up-to-date collection of Dahlias formed the leading feature of a rectangular display from Messrs. T. S. Ware, Limited, Feltham. Silver-gilt medal.

A similar award was made to Messrs. Cheal and Sons, Crawley, for Dahlias.

The society's silver-gilt medal was awarded to Messrs. Dickson and Robinson, Manchester, for early Chrysanthemums. The flowers were all naturally grown and cut from the open.

Messrs. H. Cannell and Sons, Swanley, gained a silver medal for early flowering Chrysanthemums.

NEW VARIETIES.

First-class Certificates.—To Messrs. Lowe and Shawyer, Uxbridge, for Débutante, a pure white decorative; also for Miss Dorothy Ashley, a deep pink with golden centre. To Mr. Martin Silsbury, Shanklin, Isle of Wight, for Japan, a new Japanese variety, deep yellow; also for Mikado, 1910, rosy crimson, with nankeen reverse. To Messrs. Stredwick and Son, St. Leonards-on-Sea, for a new Japanese, Maud Williamson, deep rose, silver reverse. To Mr. W. Roots, Cranford, Middlesex, for Cranfordia, canary yellow; also for Betty Spark, silvery pink, and for Mrs. F. Collier, white; all three varieties belong to the decorative section.

Commended. — Messrs. Lowe and Shawyer for Miss Elsie Heady, a rich pink decorative variety.

THE GARDEN.

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CONTENTS.

THE BRITISH FRUIT SHOW 521
Silver-leaf disease of fruit trees 521
NOTES OF THE WEEK
Triasl of Dahlias and Chrysanthemums at Wisley 522
CORRESPONDENCE
Selections of Roses 522
Thinning out Raspberry canes.. .. 523
The scent of Roses 523
Flowers in London 523
GARDENING OF THE WEEK
For the South and South Midlands.. 523
For the North and North Midlands.. 523
FRUIT GARDEN
The Apricot and its culture 524
New Melon Golden Beauty 524
ROSE GARDEN
New Rose Mrs. James Ferguson.. 524
New Roses of the year 525
FLOWER GARDEN
A white-flowered Meadow Saffron.. 525
FLOWER GARDEN
Heracleum mantegazzianum 526
Sweet Pea chat .. 526
Notes on Tulips .. 526
COLOURED PLATE
A new Damson .. 527
TREES AND SHRUBS
Clematis indivisa in New Zealand .. 527
Colutea longialata.. 527
GARDENING FOR BEGINNERS
Garden work week by week 528
Potting Hyacinths and Tulips 528
Storing hardy fruits 529
How to use nitrate of soda 529
Schizanthus seedlings 529
THE TOWN GARDEN.. 529
NURSERY NOTES .. 530
New plants 530
ANSWERS TO CORRESPONDENTS.
Flower garden .. 531
Greenhouse 531
Rose garden 531
Fruit garden 532
Miscellaneous .. 532
SOCIETIES 532

ILLUSTRATIONS.

The new Melon Golden Beauty 524
New Hybrid Tea Rose Mrs. James Ferguson 524
Colchicum speciosum album in a lawn bed 525
A noble border plant: Heracleum mantegazzianum.. 526
Damson Merryweather .. .. Coloured plate
Clematis indivisa grown in New Zealand 527
How to pot Hyacinths and Tulips 528, 529
Grapes at the exhibition of British fruit 530
First prize collection of dessert fruit 531

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE BRITISH FRUIT SHOW.

LAST year, to the keen regret of those interested in the cultivation of fruit in this country, the Royal Horticultural Society decided not to hold their usual exhibition of British-grown fruit, but, happily, this decision was not extended to the present year, with the result that a magnificent display of fruit was to be seen at the exhibition held in the society's hall at Vincent Square on Thursday and Friday of last week. It is one of the tricks of Nature that in a season of comparative scarcity like the present quality is generally above the average, to compensate, as it were, growers for the shortage of their crops. Thanks to a sunny and warm September, and brilliant weather early in October, the fruits exhibited this year were of exceptional quality, the colour of the Apples in particular being exceedingly good. Although home growers of fruit have in the past been compared none too favourably with those in our Colonies, they can, in the matter of arrangement for exhibition, teach those responsible for the uninteresting displays of Colonial fruit we are wont to see many valuable lessons.

Grapes were well up to the average, so far as quality was concerned, but we think competition has at this show sometimes been more keen. The two bunches of Gros Guillaume shown by the Duke of Newcastle, and illustrated on page 530, were exceedingly good. Weighing about 10lb. each, these bunches were of excellent shape and remarkably well finished, large size and good quality being a combination that is too rarely seen. Muscat of Alexandria was also well finished in many instances, the two bunches shown by Mr. L. G. Pike in Class 11 showing unmistakable signs of high-class culture.

To many the county classes for Apples and Pears grown entirely in the open were the most interesting feature of the show. Here the Apples from Kent and the southern and western counties of Surrey, Sussex, Hants, Dorset, Somerset, Devon and Cornwall were brilliantly coloured, but, strangely enough, some of the best Pears in the whole exhibition came from the eastern county of Norfolk. In the single dish classes for dessert and culinary Apples competition was, as usual, very good, but those for Pears were not so well filled as usual. This method of showing fruit has much to commend it, as those interested have an opportunity of seeing fruits of the same variety, but from widely different localities, side by side, and are thus enabled to note the, in many cases not inconsiderable, differences that are caused by local conditions.

SILVER-LEAF DISEASE OF FRUIT TREES.

THE twelfth report of the Woburn Experimental Fruit Farm, prepared by the Duke of Bedford, K.G., and Mr. Spencer W. Pickering, is mainly devoted to the silver-leaf disease of fruit trees, a disease that is comparatively new to this country, but which has been known in New Zealand for some considerable time. Unfortunately, it is making headway in England, and during the past summer we noticed in the Twickenham fruit-growing district quite a number of Victoria Plum trees that were badly smitten with it. Although more prevalent in Plum than any other trees, this disease attacks Apples, Pears, all kinds of stone fruits, Portugal Laurels and Laburnums. Affected trees are easily distinguished by the leaves, which turn a pale, silvery glistening colour, although some branches on a tree may be attacked and others appear perfectly healthy. There is no doubt that the disease is capable of killing trees, or portions of them, and a number that we noticed in the Twickenham district had succumbed to its ravages.

The Woburn experiments have proved conclusively that the silvering of the foliage is due to the action of a fungus named Stereum purpureum, which, however, only produces its fruiting or spore-bearing organs on dead wood. This is important, because the experiments have proved fairly conclusively that the main, if not the only, method of the spread of the disease is by spores entering wounds in the bark; consequently there need be little fear that if one tree in a plantation or orchard is attacked, others must necessarily contract the disease, providing that all dying wood on the affected specimen is removed and burned before the fungus has time to produce spores. The fungus itself lives in the tissues of the wood, and, so far, no mycelium has been found in the foliage of affected trees.

According to the report, the view has generally been held that once a tree is attacked its fate is sealed, but this opinion has been proved erroneous, quite a number

of affected trees under observation having recovered, though in most cases these were specimens that had been only slightly attacked. Judging by the experiments conducted at Woburn and by reports from various parts of the country, Victoria Plum seems to be the most susceptible to the disease; but other varieties, notably Gibson, Prince of Wales, Oullin's Golden Gage, Rivers' Early Prolific, Flemish, Czar, Monarch, Orleans and Washington, as well as several varieties of Damson and the common Sloe, have also been attacked. A few varieties have been mentioned by some growers as being attacked, while others have reported them as having escaped the disease in orchards where it was present.

Unfortunately, the Woburn authorities are not able to formulate a remedy for the disease at present. The only suggestion which has been put forward is treatment with iron sulphate, applying this to the surface of the soil in which the roots are present. In New Zealand such treatment has been considered useful, but experiments with it at Woburn gave no beneficial results. As preventive measures it is advised to destroy by burning all badly affected trees before they die, so that there is no chance for the fungus to produce spores, without which it cannot spread. In the case of slightly affected specimens, the removal of the attacked branches may be tried, but these should be cut down to a point considerably below that at which the silvering is seen in the foliage. This, however, is not likely to stop the disease from spreading to other parts of the tree. It is also advised that all tools used for the removal of any dead portions of a tree should be disinfected by dipping them in paraffin or a solution of carbolic acid before using them on healthy specimens. Unfortunately, fruit-growers in this country seem to be indifferent to the seriousness of this disease, which, judging from the report before us, might, with concerted action, be quickly exterminated without very considerable trouble or expense.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 25.—Royal Horticultural Society's Exhibition of Vegetables, Vincent Square, Westminster, 1 p.m. to 6 p.m. Lecture at three o'clock on "Life—a Director of Forces in Development—Evolution," by the Rev. Professor G. Henslow, V.M.H.

October 26.—Herefordshire Fruit and Chrysanthemum Society's Show (two days). Croydon Chrysanthemum Show (two days).

October 29. — Brussels International Show. Special Exhibition of Flowers (five days).

Trials of Dahlias and Chrysanthemums at Wisley.—A sub-committee of the Royal Horticultural Society visited the Wisley Gardens on September 15 and recommended awards of merit, which have been confirmed by the council, for the following Chrysanthemums and Dahlias: Chrysanthemums—To Messrs. W. Wells and Co., Limited, Merstham, for Elaine; Messrs. Dobbie and Co., Edinburgh, for Abercorn Beauty, Flora, Miss Balfour Melville, Mr. Selby, Nina Blick and Leslie. Dahlias — To Messrs. Hobbies, Limited, Dereham, for Grenadier; Mr. Pfitzer, Stuttgart, for Hohenstanfen; and Messrs. Bakers, Codsall, for S. T. Wright. A sub-committee also visited the gardens on September 29 and recommended awards of merit, which were confirmed by the council on October 12, for the following Chrysanthemums: Sent by Messrs. Dobbie and Co., Edinburgh—Diana, Market White, Mrs. A. Thompson, Polly, Tapis de Neige, Fée Japonaise, Perle Chatillonaise and Provence. Sent by Messrs. W. Wells and Co., Limited, Merstham—Diana, Cecil Wells and Gatton.

Royal Horticultural Society's trials at Wisley, 1911-12.—The Royal Horticultural Society have arranged for trials of the following subjects to be made at Wisley in 1911-12. Everything sent for trial must be named and the name and address of the sender attached. Fruit: Strawberries and Raspberries, autumn fruiting.—These trials will be continued. Flowers: Fuchsias for bedding and for the conservatory.—Two plants of each to be sent in early March. Begonias (fibrous), including summer and winter flowering and bedding varieties.—Two plants of each to be sent in March. Delphiniums.—Two plants of each in February. Dahlias (decorative) introduced into commerce since January 1, 1908.—Two plants of each in May. Primulas (hardy) for borders and rockwork.—Three plants of each in February. Vegetables: Carrots.—Half an ounce of each early in February. Cucumbers.—Six seeds of each in February. Peas.—Half a pint of each early in February. Cabbages, Savoy.—One packet of seed of each in March. Potatoes, midseason and late.—Each variety must be labelled as being midseason or late. Twenty tubers of each to be sent by February.—W. WILKS, *Secretary, Royal Horticultural Society.*

Proposed horticultural society for Yorkshire.—The next meeting to consider the formation of this society will be held in the Lord Mayor's Room, Leeds, on the 25th inst., at 3 p.m., and not at the Grand Central Hotel as previously stated.

Edinburgh Association of Science and Arts.—Among the awards made by the prize committee of this association is one to Mr. W. G. Smith, B.Sc., Ph.D., lecturer on biology, Edinburgh and East of Scotland College of Agriculture, for his paper on "The Sense Organs of Plants," illustrated with lantern slides, and read on January 31, 1910.

Dundee Horticultural Association.—This enterprising association has just issued its syllabus for the new session, together with the annual report for the last one. The syllabus is an excellent one, and the meetings are likely to be as well appreciated as those of the past session. They are held in the Technical Institute, Dundee, on the second Tuesday of the month at 7.30 p.m. The annual report is of a favourable character, and the treasurer's statement shows a balance to the credit of the association of £4 18s. 5d., a few shillings more than in the previous year. The first meeting of the new session was held in the Technical Institute, Dundee, on the evening of October 13. There was a good attendance, and the president for the session, Mr. William Christison, Brackenbrae Gardens, West Ferry, gave an admirable presidential address, which was much appreciated.

National Hardy Plant Society.—A meeting of the provisional committee of the National Hardy Plant Society was held at the Royal Horticultural Society's Hall, Vincent Square, on Thursday, October 13, Mr. Macself in the chair. Rules and bye-laws were adopted subject to approval by a general meeting of the society, which will be held on Thursday, November 3, at 3 p.m., at the Hotel Windsor, Victoria Street, Westminster, for this purpose and for the election of officers and council for the ensuing year. Members and anyone interested in hardy plants desirous of joining are cordially invited.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Roses Gardenia and Konigin Carola. I was pleased to see Mr. H. E. Molyneux speak in such favourable terms of Rose Gardenia in THE GARDEN for October 8. I have a plant growing over a 12-feet pole, where it has rambled for the last five years, and when it begins to open its blooms in June it is never without until well into November. I do not know any other Rose of which the same can be said. The deep yellow buds are so pleasing in a cut state, too, and the fully expanded pure white blooms also are simply enchanting upon the tree, contrasted so well as they are with the deep green of its leaves. Annually this plant makes sucker-like growths 8 feet long, which give extremely fine flowers later on. I was also pleased to see Mr. A. L. Squire, on page 498, speak so favourably of Konigin Carola. I find it not at all like Caroline Testout; the colour is quite different, containing as it does so much more rose than Caroline Testout. The form of the petals, too, is so different, and the freedom with which Königin Carola gives its flowers is remarkable. These are produced in clusters with long footstalks, thus rendering the blooms so useful for decoration in a cut state.—E. M.

Late Strawberries.—I was much amused by the criticism on my article on Strawberries of Mr. Strugnell and "M." in the issue of THE GARDEN for October 1. Both condemn my remarks on Countess and Fillbasket, and yet both endorse what I say regarding these varieties. Had they been more careful in the reading of my article they would have noticed that I only claimed these two varieties as new *to me.* I also stated that I had had only one season's experience of them, and so could not form a proper opinion of their merits. I am still of opinion that Fillbasket would be quite a good Strawberry on light, dry land, and have given a number of runners to a friend for trial on such soil, and hope to be able in due time to report as to its conduct under different treatment from my own. As to its colour, I think it is quite equal to the famous President in that respect, while with me the flavour, if not very rich, was quite pleasant. Colour is not everything when the fruit is for private use, but I doubt not the ignorant buyer in the open market would choose the entirely flavourless Noble before Fillbasket. The gardener in one of the largest places in Scotland tells me that Fillbasket is their best Strawberry. Soil light and well drained. How opinions differ! I am pleased to have the opinion of your two correspondents on the poor cropping qualities of Countess. I am glad that I did not plant a large breadth of this sort. I own to one serious mistake in my article, which was doubtless misleading. Instead of heading it "Late Strawberries," it ought to have been "Strawberries for Late Districts."—C. BLAIR.

Selections of Roses.—"Alvaston" will find Chateau de Clos Vougeot very flat when fully open, rather reminding one of a frying-pan. Why

not try G. C. Waud, which is good in every way ?—WEST WORTHING.

Thinning out Raspberry canes. — I entirely agree with "Shamrock" as to the early cutting out of surplus Raspberry canes. Here in the North-West of Scotland, where the fruit crop is over at the latter end of August, I find it is by far the best plan to cut out all old and weak canes in September, thereby allowing full sunlight and air to reach the remaining ones. I have tried this here as against the old method of leaving until the winter, and the fruit crop has been greatly increased, both in quality and quantity and in the size of berry.—R. B., *Inverness-shire.*

The scent of Roses. — I notice with great pleasure that Lady Wemyss has recently offered an annual prize for the sweetest-scented Rose; further, that she considers the scent of a Rose to be three-parts of the flower. As I entirely concur with her ladyship's views, may I be permitted to point out that in omitting fragrance from the several tests by which Roses are to be judged, the authorities who organise our Rose shows undoubtedly overlook the real excellence and charm of the flower. Surely the odour of the Rose is its music, and therefore should be deemed of more importance than either its size or its colour or even its form. By omitting that characteristic when judging the real value of a Rose our present-day rosarians classify it with the common run of flowers. In doing so they ignore the almost unchallenged and universally acknowledged fact that the Rose is the queen of all flowers. Surely royalty in the vegetable kingdom should be as immune from contrast as we acknowledge it to be in the animal?

"O, how much more doth beauty beauteous seem,
By that sweet ornament which truth doth give.
The Rose looks fair, but fairer we it deem
For that sweet odour which doth in it live."

—G. B. W.

Flowers in London. — The St. James Flower and Garden Guild was started this summer in the parish of St. James, Upper Edmonton, with the object of brightening what is at the best a dingy neighbourhood, and, in spite of difficulties, it was a decided success. Prizes were given for the best-kept gardens, window-boxes and pot plants, and the results for a first year were quite satisfactory. The usual difficulty of raising money occurred, but the Metropolitan Public Gardens Association very kindly helped us with prizes for the window-boxes. The committee collected as much as they possibly could in small sums, and the deficits were made up from the Parochial Relief Funds, which subsequently became exhausted. We have an offer from several lecturers to give us lectures on window-boxes and similar subjects during the winter, provided their travelling expenses are paid, but so far we have been unable to raise enough money to meet this expense. The committee are most anxious to continue and extend their work, which seems very badly needed in that part of London; but they feel that to do so it is essential that some outside help should be obtained. I venture to appeal to readers of THE GARDEN in the hope that some of them may be sufficiently in sympathy with our efforts to help us in the work. The guild is undenominational, and most of the judging was undertaken by Mr. Collie of the Metropolitan Public Gardens Association. I might also mention that one of the most energetic members of the committee is the headmistress of the school, who encourages the children to enter for the four classes provided for them. The parish consists of artisans and factory hands, and it is quite impossible to raise much money locally.—MONICA V. EWBANK, *Hon. Secretary, Cobham, Surrey.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY VINES.—To obtain ripe Grapes in May the Vines must be started in November. Pot Vines are usually grown on for this purpose, and when fruited are thrown away. In some gardens young Vines are planted in narrow borders, grown on for one season, fruited the next and destroyed. All the pruning that is necessary is the removal of the lateral growths, leaving the cane about 6 feet long, more or less according to its strength. The canes may have a washing with Gishurst Compound, and be bent round to ensure a regular flow of sap. The house should be thoroughly cleansed and the walls whitewashed, and closed the first or second week in November. If the Vines are growing in borders, some of the old soil should be taken off the top and fresh added, and a sprinkling of bone-meal mixed with it. After top-dressing, the border should be well watered. Pot Vines may be plunged in leaves and treated as above. The night temperature to commence with should be maintained at 50° to 55° Fahr.

FLOWER GARDEN.

Lobelia cardinalis.—In many gardens there is great difficulty in wintering this plant in the open ground. It has a tendency to rot off from excessive moisture; otherwise it is perfectly hardy. The water gets into the centre when the flower-stem dies and sets up a general decay. Lifting, dividing and replanting immediately they finish flowering is a good plan; but where this does not answer, the roots should be taken up, placed in boxes and wintered in frames. Two excellent varieties are Firefly and Lord Ardilaun. As a result of crossing these two a new variety, Gloire de St. Anne's, has been raised.

ROSE GARDEN.

Where new beds are made, preparations should commence at once. The ideal soil for Roses is a good, stiff loam, with a depth of about 3 feet to 4 feet. It is a mistake to dig in a lot of farmyard manure where the soil is rich loam; this is best with only a little bone-meal added. When the soil is of a light, sandy nature, stiff loam and cow-manure should be applied. Whatever the soil is, it should be trenched and got in readiness for planting the trees immediately they are received from the nursery. If the roots are dry when unpacked, they may be placed in a thin mixture of clay and water, which will revive them. The most effective display is obtained from the system of massing one colour in each bed. The list should be made out and despatched as early as possible, as orders are usually executed in rotation. The following are a few excellent kinds for massing: Lady Battersea, Caroline Testout, Margaret Dickson, Baroness Rothschild, Richmond, Ben Cant, Mrs. W. J. Grant, Liberty, Prince C. de Rohan, La France, Captain Christy, White Maman Cochet, Mme. Ravary and Clio. For clothing pergolas and arches we have Lady Gay, Mrs. Flight, Crimson Rambler, American Pillar, Hiawatha, Tausendschön, Leuchtstern, Aglaia, Flower of Fairfield and Euphrosyne. The wichuraiana class are exceedingly useful for covering old roots of trees or for rambling over banks.

E. C. POOLEY.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS PLANTS.—On light, dry soils autumn planting is advisable, while those having stiff, retentive land should defer this work till March. The ground for these hardy plants should be trenched 2 feet deep, and have a fair amount of old manure or old vegetable mould mixed with it. If the bed or border can be left for a week to settle, so much the better; but if planting must be proceeded with at once, then tread down the border evenly before starting—this only, of course, if the soil is fairly dry.

Replanting Old Borders.—The making of a new herbaceous border is quite a pleasant and easy matter compared with replanting an old one. The first thing to do is to lift every plant and lay it aside in a shady place, as near to the border as possible. I have seen an attempt made at re-arranging a border by lifting the plants and re-planting as the digging proceeded. It can never be a satisfactory method of procedure, and should never be attempted. In lifting the plants be sure to attach the proper label to each, and if all tall kinds are kept to themselves, very little difficulty will be experienced when planting in laying the hand on what is wanted.

Planting Bulbs.—The summer occupants of the beds having been killed down, no time should be lost in having the bulbs planted. The ground should be well broken up with a fork, and the planting should be done, if possible, in dry weather. Hyacinths are not nearly so much used as formerly, and few will regret their absence, as they are so stiff. Of course, they lend themselves to effective colour-schemes, and where they are favoured should be planted now. Plant so that the tops of the bulbs will be about 4 inches below the surface. A handful of sharp sand should be placed under each bulb.

Crocus.—The large yellow is perhaps the showiest of them all, and when planted in broad lines near paths, or as an edging to large beds of shrubs, it is very effective. Plant the bulbs 2 inches apart and 2½ inches deep, and a fine display is assured. Mice are very fond of the bulbs of yellow Crocuses.

Scillas and Chionodoxas.—Everybody delights in these early flowers, and as they last in beauty for a considerable time they should be freely planted in the fronts of the hardy borders and in the rock garden. They seem to be most effective in moderate sized clumps, say, of a dozen to eighteen bulbs. The Scilla increases rapidly if left alone, but the Chionodoxa is less likely to multiply in cold districts.

Other Bulbs.—No one ever has too many Snowdrops, and as they thrive under trees better than most other plants, large numbers should be planted whenever possible. Imported bulbs do not always bloom well the first year, but afterwards succeed all right. The Dog's-tooth Violet is another favourite with most people, its finely marbled foliage and large flowers being very effective. It looks best in good-sized clumps in the front of the mixed border or in the rockery. The Sisyrinchium, where it succeeds, is one of our daintiest spring flowers. Good clumps in the rockery or in the open border are very chaste. The white form is rather scarce, and, although pretty, is so shy a bloomer usually that it is less desirable than the ordinary purple sort. The Spring Snowflake (Leucojum vernum) is another early bulb that should not be forgotton. Then there are Anemones, Wood Hyacinths (Scilla nutans), Grape Hyacinths (Muscari) and many others which should find a place in every garden.

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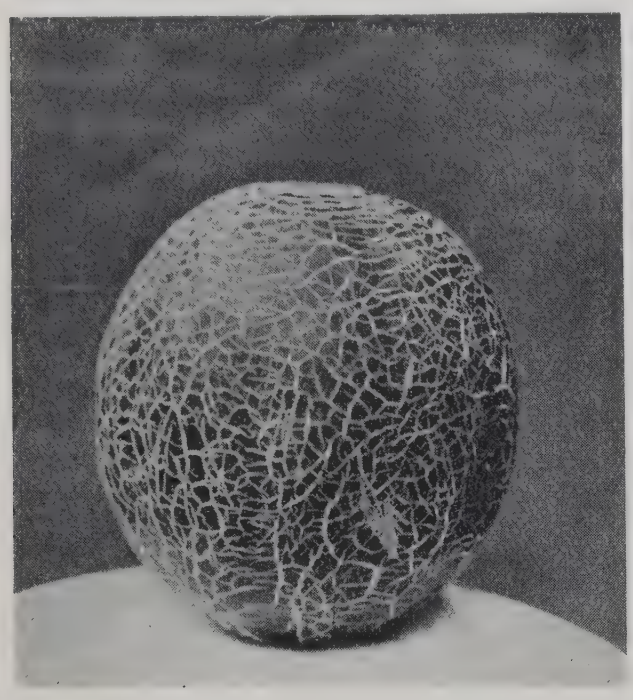
THE FRUIT GARDEN.

THE APRICOT AND ITS CULTURE.

(*Continued from page* 497.)

CANKER AND GUMMING.—This is one of those mysterious diseases which has so far baffled the ingenuity of vegetable pathologists to find out the cause, a disease which is responsible for such frequent havoc and loss among these trees. Various theories have from time to time been advanced as



THE NEW MELON GOLDEN BEAUTY.

to the origin or cause of the disease. I am of opinion, formed after long and practical experience in the growth of this fruit, that the mischief is caused while the trees are young by the too vigorous and sappy shoots they are frequently allowed to produce. It is impossible to properly ripen such shoots during our short autumns, hence they are an easy prey to severe frosts. It is, in my opinion, a severe frost which first injures these soft shoots, causing a wound to appear in the bark the following season, followed by gumming and afterwards by canker. These canker wounds may not prove fatal to the branch for years, or, maybe, not at all; but I believe that the root of the mischief lies in these abnormally large and soft branches. The question may reasonably be asked by would-be growers: What, then, can we do to prevent the growth of such gross shoots? The remedy is very simple. Lift the young trees in the autumn when there is any symptoms of such growth, root-prune and replant again immediately. The tree will suffer no harm from the lifting, and the gross growth will be arrested for at least a couple of years; but should it reappear at the end of that time, serve the tree in the same way, and there is not likely to be further trouble with gross growth, as the lifting and root-pruning will not only arrest this, but it will greatly help to induce the trees to bear heavily, which in itself, as I have previously stated, is the best corrector of such growths. Badly cankered trees live and bear good crops for many years. The best way of treating such trees is to wash the wounds thoroughly in winter with a strong solution of soft soap and warm water, cutting away any dead parts there may be about the wounds.

The Treatment of Weak and Barren Trees.—If the trees are moderately young, say, under fifteen years, and do not cover a wall space of more than 12 feet run with a height of 9 feet or 10 feet, the best way is to cut a trench in half-circle form round the tree 18 inches wide and 2½ feet deep at a distance of 4½ feet from the stem of the tree. Wheel away all the soil from this trench and cut back each root encountered, using a knife and making a clean slanting cut on the upper side of the root. No chopping or hacking of the roots with a spade should be tolerated. Some young or inexperienced readers of THE GARDEN will no doubt wonder why it is recommended that growers should resort to what appears to be so barbarous a practice as cutting the roots of a tree to make it grow better! The roots of a tree are like its branches. Cut a branch back, and you will find that four or five or more young branches will grow out of the branch below the cut. So it is with the roots. To each cut root will be added from four to eight new feeding roots. It is on the number and strength of these new fibrous and feeding roots that our hopes for the recovery of our root-pruned trees depend. Having cleared the trench of soil, proceed with a five-tined fork to break down the wall or side of the trench next the tree to the extent of 10 inches, exposing a still larger number of roots. After doing this, proceed to fork up the surface soil over the roots, drawing it down with a rake into the still open trench until a good body of top roots is found. This completed, wheel away all the old surface soil from the trench and fill it up to the level of the surrounding ground with the following soil compost, replacing the surface soil (removed) to the same level with the same compost. The pruned roots should be laid carefully in the new soil, pressing it firmly as the trench is being filled.

The Compost.—To one barrow-load of good turfy loam of rather heavy texture cut from an old pasture add two pecks of old mortar rubble (crushed into the size of pigeons' eggs), half a gallon of quicklime, the same of soot and the same of bone-meal, mixing the whole well together. The turf should be cut into lumps the size of one's fist, using also the small soil which always accompanies the breaking up of turves. Those who wish to grow Apricot trees, but whose soil is naturally poor and shallow, would be well advised to form a border for them of the above-mentioned compost. The treatment above described refers to trees from fifteen years old downwards.

In Dealing with Older Trees I would omit cutting a trench, and be satisfied with removing the surface soil from over the roots as far as they extend until a good body is found. Any long, straggling roots barren of fibre I should cut several lengthwise niches in with a knife. From these cuts a number of young roots will emit in due time. Place a top-dressing of the soil compost previously described over the roots to the depth of 6 inches, treading it well down. It will be found that during the following summer a legion of new healthy roots will have permeated this new soil, giving vigour and tone to the trees.

Mulching the Trees.—The mulching of the surface of the ground over the roots of the trees, both summer and winter, with rich, decayed farmyard manure to the depth of 4 inches is a source of great benefit to the trees. In winter the virtue of the manure is washed down into the soil and made available for the nourishment of the trees in summer. In summer it is useful in keeping the surface of the soil cool and moist for the roots by preventing too rapid evaporation, and it also encourages the formation of surface-feeding roots, which help the trees so materially in swelling and finishing off a good crop of fruit.

Watering.—Although mulching greatly conserves moisture in the soil, yet in the height of summer the trees and the crops they bear will be very greatly benefited by an occasional heavy watering of manure-water from the stable or cowyard, or, in the absence of this, a good substitute will be found in Peruvian Guano, adding a good handful of it to every two gallons of water.

OWEN THOMAS, V.M.H.

NEW MELON GOLDEN BEAUTY.

IT is a very simple matter to raise a new Melon, but to raise one that will gain an award of merit from the fruit and vegetable committee of the Royal Horticultural Society is quite another thing. The variety shown in the accompanying illustration gained this distinction after being grown on trial in the Royal Horticultural Society's gardens at Wisley. The main point about a good Melon is, of course, its flavour, and in this respect Golden Beauty leaves nothing to be desired. The fruits are of average size, with deep and scarlet flesh. It is well netted, having a very nice appearance, and is reputed to be a very free setter. This variety gives great promise. It is being sent out by Messrs. Barr and Sons, Covent Garden, London, who kindly sent us the fruit now illustrated.

THE ROSE GARDEN.

NEW ROSE MRS. JAMES FERGUSON.

AMONG the new Roses that received recognition from the judges at the National Rose Society's autumn show this year, none was more admired than Mrs. James Ferguson, a Hybrid Tea of rare beauty. As will be seen by the accompanying illustration, the flower is of that conical shape with reflexed petals that finds so much favour at the present time. The colour is a delicate shade of pink, resembling somewhat in this respect the well-known La Tosca. It was shown by Mr. James Ferguson, Dunfermline, and received a silver-gilt medal.

NEW HYBRID TEA ROSE MRS. JAMES FERGUSON.
(*Much reduced.*)

NEW ROSES OF THE YEAR.

(*Continued from page* 515.)

JACQUES VINCENT (H.T., Soupert et Notting, 1908).—A pretty novelty of the Edu Meyer type, colour coral red, shaded with pale yellow and salmon. Will make a good bedder.

James Coey (H.T., A. Dickson and Sons, 1909). This is a splendid addition to the golden yellows, and will be a boon to those who admire this colour, as there are but few really good yellow garden Roses. James Coey blooms profusely upon erect growths.

Jessie (Dwarf Polyantha, Merryweather, 1909). Bright cherry crimson. Very pretty little flowers, which retain their colour well. They are borne in large clusters. One of the most beautiful and brilliant-coloured varieties of the class to which it belongs, and will be invaluable for massing and for pot-work.

Johannisfeuer (Pernetiana, Turke, 1909).—A marvellous coloured Rose, golden yellow, this changing towards the ends of the petals to brilliant fiery red and gold. Hardy, sweet, with coppery green foliage on growths having large and small thorns.

Jonkheer J. L. Mock (H.T., Leenders, 1909).—Perhaps one of the most distinct novelties of its year. It has La France growth and build of flower, but the colour is so marvellous—the outside of petals vivid red, upper side silvery pink, a remarkable contrast, more intense than Farbenkönigin, the result of a compound cross (Caroline Testout × Mme. Abel Chatenay × Farbenkönigin), a form of crossing I would commend to hybridists as likely to give us some distinct novelties.

Kaiser Wilhelm II. (H.T., Welter, 1909).—Fiery red and crimson, shaded velvety black, buds elongated, always opening well. Should be a valuable addition to high-coloured sorts. A cross between Kaiserin Augusta Victoria and Louis van Houtte.

Lady Alice Stanley (H.T., S. McGredy and Son, 1909).—A Rose to obtain a gold medal of the National Rose Society in 1908 and a certificate at the Bagatelle trials this year should be a good addition to our collection. I thought well of this from the first, the style of bloom and lovely colouring being of that fascinating type we get in Mrs. E. G. Hill and Grand Duc de Luxembourg. It will be splendid for the garden and a good addition to show Roses.

Lady de Bathe (H.T., B. R. Cant and Sons).—A flower of the Antoine Rivoire type, with a rich creamy colouring. Will be a useful sort, especially for garden decoration.

Lady Coventry (Smith).—If we are to believe the daily Press, this is the long-looked-for blue Rose, but it is something like the sea serpent. One must see it with one's own eyes before taking in the glowing account given of this marvel.

Lady Greenall (H.T., A. Dickson and Sons).—A pretty Rose with apricot shading. May prove a useful sort, but at present it has not been specially well shown.

Lady Pirrie (H.T., Hugh Dickson, 1909). — A flower of this beauty stands out in my memory as being one of the loveliest blooms I ever beheld. The delightful high centre and regular form, with a colouring that can only be described as a mixture of Lyon Rose and Mme. Abel Chatenay, must render this variety extremely popular. Whether it is a good lasting sort I cannot say, but certainly as shown at Regent's Park this year it was superb, and in my opinion one of the best new Roses of its year.

Leuchtfeur (China, Kiese and Co., 1909).—A more brilliant colour than even Charlotte Klemm, which is saying a good deal. For bedding no better Rose exists of its colour, brilliant blood red, and, moreover, it is sweetly scented. A cross between Grüss an Teplitz and Cramoisie Supérieure.

Lieutenant Chaure (H.T., Pernet-Ducher, 1910). This is a most beautiful addition to the crimson Hybrid Teas, and will probably be grown as extensively as any Rose of its colour when better known. A grower near Paris writes: "Lieutenant Chauré is an ideal beauty." The growth is strong, and the buds are extra long and pointed, opening into a large flower of rich crimson-red. From a letter before me its renowned raiser has a high opinion of this Rose, and I have pleasure in passing the information on, which may be useful to commercial growers of forced Roses and also to those in private establishments who are still looking out for an ideal crimson. Have we the long-desired Crimson Mermet in Lieutenant Chauré? I suppose we must "wait and see," but personally I have every confidence in its raiser's judgment. Lieutenant Chauré was raised from Liberty crossed with Etoile de France.

Louis Barbier (Pernetiana, Barbier and Co., 1909).—Here we have an excellent climber of a most unique colour, obtained by crossing Mme. Berard with the Austrian Copper. The colour is bright copper red, sometimes striated yellow, turning to copper rose and bright purple when fully open. Exterior of petals copper yellow, darker at the base. The flowers are semi-double, produced in bunches of two to six. It possesses the vigour of Mme. Berard, with much of the gorgeous colour of the Austrian Copper, and, strangely, this latter has affected its season of flowering, which is early in May. The branches are covered with flowers as in that lovely old Rose.

May Kenyon Slaney (H.T., A. Dickson and Sons, 1910).—Colour blush pink on rich cream. The sea green foliage and bronzy-coloured thorns are most attractive. The flowers are large, full, and of exquisite form.

May Miller (H.T., E. G. Hill and Co).—We have learned to value the introductions of this firm; for is not their Mrs. Theodore Roosevelt one of the best show Roses and General Macarthur one of the best bedders? The above-named novelty has a colouring reminiscent of Lyon Rose, the bud long and pointed, and the open flowers of unusual beauty.

P.

(*To be continued.*)

THE FLOWER GARDEN.

A WHITE-FLOWERED MEADOW SAFFRON.

(COLCHICUM SPECIOSUM ALBUM.)

BY far the finest of all the white-flowered Colchicums, this plant secured the admiration of all when introduced a few years ago by Messrs. Backhouse of York. Single corms fetched a high price, but the stock has been rapidly increased, so that they can be obtained now for about 10s. a dozen. Like the purple-flowered type, it is the possessor of a strong constitution, and appears to be quite at home in any good garden soil. Meadow Saffrons are such valuable autumn-flowering plants that they should be planted much more freely than they are, seeing that so many are suitable for the shrubbery, border and grassy slopes near water. In the latter position the corms get thoroughly ripened in summer, while at the same time moisture is within reach of the roots. They may also be used with advantage to brighten up the rock garden in the autumn, as many corners may be found for them where their ample foliage will not interfere with other smaller plants.

COLCHICUM SPECIOSUM ALBUM IN A LAWN BED.

Where a bed has to be made up for the reception of these plants, the most suitable medium to use would be rather stiff loam, and with this should be mixed a good proportion of leaf-mould and sharp grit. If manure is used, it should be well-rotted cow-manure that has been thoroughly matured, and it must be dug well in so that none of it is in contact with the corms when planted. As Colchicums are bare of leaves at flowering-time, they are seen under the best conditions when planted in turf, where the flowers do not get splashed or damaged as in a bare border. When the plants must be grown in a bed splashing may be prevented by planting some low-growing Sedums or Saxifragas between them to form a carpet, but it ought not to be allowed to become too dense.

Though the individual flowers do not last very long, they are produced in great abundance when established, extending the flowering season over a

good period of time. The foliage, which is developed in early spring, bearing with it the seed-vessels, varies considerably in the different species, the leaves in some being over 1 foot long and 4 inches broad, while in others they are short and narrow. The stronger-growing species should be lifted every third year, so that the crowded corms may be separated and the plantation extended. Although they do not suffer in thus transplanting, it is not wise to keep them too long out of the ground. Deep planting is necessary, especially in lighter soils, where the corms may be 6 inches beneath the surface.

The best species for the wild garden, shrubbery border and similar positions are C. autumnale, C. Bornmülleri, C. byzantinum, C. giganteum, C. speciosum and C. variegatum, all being strong growers and well able to take care of themselves. For the border there are the different coloured forms of C. autumnale, viz., single white, double white and double purple of various shades, C. speciosum album and C. Sibthorpii among others. The latter species, which comes from Greece, is rather tender and needs a well-sheltered position. Among the winter and spring flowering Colchicums we get several from Syria—C. Decaisnei, with flesh-coloured flowers, and C. libanoticum, with white flowers; while C. crociflorum is a dainty little plant from Central Asia with white flowers, striped on the outside segments with various shades of purple.

A NOBLE BORDER PLANT: HERACLEUM MANTEGAZZIANUM.

HERACLEUM MANTEGAZZIANUM.

THE Cow Parsnip family contains some of the handsomest members of the Umbellifer Order, which comprises such plants as the giant Fennels. H. giganteum is a well-known plant that is used so effectively in the wild garden and shrubberies, where it seeds itself freely, and perhaps becomes somewhat of a nuisance in many places. H. mantegazzianum, which comes from the Caucasus, is certainly the finest of all the species of Heracleum in cultivation. The illustration shows a plant about 9 feet high with umbels of flowers 2 feet to 3 feet in diameter. The flowers are larger and of a purer white than in H. giganteum, and the plant makes a very effective subject when seen from a distance. Seeds are freely produced, and may either be sown outside as soon as ripe or kept till the spring and sown in a little heat to bring them up quickly. The seedlings may either be pricked out into boxes or singly into pots, the latter for preference when wanted for planting out in the wild garden. Although they will grow in almost any soil, they will pay for good treatment and attain greater proportions in good, deeply cultivated loamy ground. W. I.

SWEET PEA CHAT.

OUTDOOR AUTUMN SOWING.—Autumn sowing in these days of fierce competitions from one end of the country to the other is invariably mentally connected with the winning of prizes, and it is almost always associated with pots in frames; but there are still those who do not aspire to shine as giants in the show arena, and who still would have excellent flowers in good time in their gardens. It is further possible that did they wish to do so, they could not adopt under-glass sowing, for the simple reason that they have not at command the conveniences which the system demands. It is such as these that sow seeds out of doors in the autumn and undoubtedly achieve some most gratifying results. Although the plants do not make any observable progress above ground through the winter months, they are incessantly making roots and building up the constitution which enables them to yield flowers slightly in advance of those from spring-sown seeds, and immensely superior in length of stem and substance and colour of the blooms. It is a method of procedure that can be staunchly advocated, notwithstanding the fact that the losses in seeds and young plants are generally considerable owing to contingencies over which the ordinary grower has no real control; allowance is naturally made for these things, and success is the reward.

PREPARATION OF THE SOIL.—Precisely as it is imperative to thoroughly prepare the ground for the reception of seeds or plants in the spring, so also is it for the seeds which are to be sown directly *in situ* now. It is impossible to cultivate it too deeply, and, within reason, it is not easy to manure it too generously; but it is always preferable to incorporate the manure with the second spit of soil, and not to put it in solid masses in narrow, hard-walled trenches. Any manure that goes into the top spit should be in the form of refuse, since soil in good heart will contain plenty of nutrient matters to maintain the plants in active growth for several weeks. The minimum depth of worked soil should be 18 inches, and those who can increase this to 36 inches are bound to derive benefit from their additional labours.

SOWING THE SEEDS.—In connection with this important operation I do not think that there is a more common error than sowing too deeply and too thickly; but, in a sense, the latter is excusable at this season, because it is taken as a certainty that the losses will be serious. For the former mistake there can, of course, be no excuse. To bury seeds 3 inches, or even more, beneath the surface, as has been done on scores of occasions, is to make it practically sure that rotting will follow. The utmost depth in the lightest soils and with the hardiest of seeds should be 2 inches, and it is seldom wise to go beyond 1 inch. Again, for light and ugly, spotted seeds the covering should be very light, say, a quarter of an inch, and sand should be used below, and above also, if it can be made convenient. In all instances the base upon which the seeds are set should be firm and level, as germination will be quicker and subsequent progress superior in all respects in comparison with those from seeds sown in triangular drills, as is sometimes seen.

TIME OF SOWING.—The actual time of putting the seeds in the ground necessarily varies considerably, since it is governed by the soil and climate of the garden and, in some smaller degree, by the time at which it is particularly desired that the plants shall be at perfection. In extremely cold, heavy soils, September sowing is followed by admirable results in the following July. When these conditions prevail, germination and growth are both slow, and it is most important to secure the warmth of the summer sun to encourage a strong start. In an ordinary loam any time up to the end of October answers excellently, the seeds vegetating well and the young plants making splendid progress. Then it is well within the bounds of possibility that many readers will be cultivating a warm, light sandy medium. In this case sowing may advantageously be carried out at any date up to the third week of November. In all circumstances it is desirable that the seeds shall be thickly coated with red lead prior to sowing in order to reduce, as far as possible, losses from the ravages of mice. It will be imperative, too, to make provision against the depredations of slugs, and the fact that birds will eat the young tops must never be overlooked. SPENCER.

NOTES ON TULIPS.

I WAS driving with a friend the other day in a "taxi" to the Japanese Exhibition, and in the course of our conversation on matters pertaining to gardening and gardening newspapers he said, "There's no use your writing about plants that are not in commerce; the public cannot buy them and the stockholders will not sell them, and would-be purchasers give a lot of unnecessary trouble writing and wanting to get hold of them. Wait till a thing is out, and then crack it up and write about it as much as you like." I see this point of view perfectly, but I can see others just as well.

However, I will give a few straight tips about Tulips and take my "taxi" friend's advice, and only praise those that anyone can easily get hold of, for the simple reason that I have only Hobson's choice before me. There are so few novelties in the making that I should have considerable difficulty in writing about them. Some of the greatest novelties in the Tulip world in recent years have

THE NEW DAMSON "MERRYWEATHER"

been the names, or, rather, the bad system of renaming which has been practised, I am sorry to say, rather widely, to the confusion of many and in direct contradiction to the spirit of the elders, who were most particular and punctilious in this respect.

Now for the tips. For early flowering (grown in pots).—Prince of Austria, orange red; Duchess of Parma, deep orange, with a yellow edge; Vermilion Brilliant, all scarlet; Jenny, cherry; La Remarquable, deep claret, citron edge; Rose Luisante; deep rose; Brunhilde, white, with yellow flames; Hector, orange red and yellow; Pink Beauty, rose pink and white; White Joost van Vondel, all white; and Prince de Ligny, all yellow.

Early flowering singles for beds.—Prince of Austria, orange red, and Coleur Cardinal, crimson and plum, are undoubtedly my favourites; but Dusart, rich crimson, is a wonderful stayer, while an eye should be kept on the old Artis, scarlet; Stanley, rose; White Hawk, crinkled white; and the somewhat gaudy Keizerskroon, red and yellow.

Early flowering doubles for pots.—Schoonord, pure white—this did well at Haarlem in the spring, and will always be in the front rank, closely followed by Safrano, Rose Maréchal Niel colour; Rose d'Amour, pale rose; Couronne d'Or, orange; Cochineal, brilliant scarlet; and Lac van Haarlem, violet.

Darwins for pots.—This is, comparatively speaking, a new class, and it is difficult to place all those suitable in their proper order. The following, however, may always be relied upon to give a good account of themselves: William Pitt, rich red; Ant. Roozen, rose and blush; La Candeur, white; Bleu Celeste, mauve; Donders, deep crimson; Mississippi, pinky rose; Pride of Haarlem, old rose; Rev. H. Ewbank, heliotrope grey; Professor Rauwenhoff, cherry rose; and Leonardo di Vinci, deep glossy maroon.

Darwins for out of doors.—New arrivals have swelled the possible field to very large proportions. I would, however, select the following as comprising those of my own particular fancy, for I am well aware surprises must always be expected when the choice is so great: Velvet King, rich royal purple; Zulu, almost black; Zanzibar, deep red maroon; Prince of the Netherlands, dark rose; Mr. Farncombe Sanders, brightest rose red; Edmée, rose and blush; Yolande, salmon rose; Flamingo, pink; Isis, rich red; Millet, rich crimson; Scarlet Beauty, brilliant scarlet; Remembrance, lavender and mauve; Cupido, pink and flesh; Erguste, heliotrope; Suzon, blush, flamed pale rose; Tara, rich ruby red; Ariadne, crimson scarlet; and Viola, rich violet.

I hope to continue these notes next week and to give a few cultural details which will probably be of assistance to at least some readers. I fear the culture of Tulips is not nearly so well understood as it ought to be, judging by the poor examples so frequently met with. JOSEPH JACOB.

COLOURED PLATE.

PLATE 1411.

A NEW DAMSON.

IT is so very seldom that a new Damson is put before the public, and even more rare is it that a new variety is of sufficient merit to gain an award from the Royal Horticultural Society. The Damson shown in our coloured plate was raised by Messrs. H. Merryweather and Sons of Southwell, Notts; and when shown by them before the Royal Horticultural Society three years ago received an award of merit. In growth this Damson, which is named Merryweather, is as vigorous as a Victoria Plum, and even in a young state the trees crop heavily. In size the fruits are much larger than the largest Damson hitherto known, but the true flavour of the Damson is present. The fruits are very fleshy and juicy, and undoubtedly this variety has a great future before it. The Damsons will often thrive and crop well where Plums are almost a failure, and, now that the disadvantage of small fruits has been successfully overcome, we may expect to see them grown in all gardens. There is something about the flavour of a Damson that appeals to most tastes, and for preserving, of course, the fruit is excellent. The fruiting spray from which the coloured plate was prepared was kindly supplied by Messrs. Merryweather.

BRANCHES OF CLEMATIS INDIVISA GROWN IN NEW ZEALAND.

TREES AND SHRUBS.

CLEMATIS INDIVISA IN NEW ZEALAND.

AS I noticed in THE GARDEN for June 4 an article on Clematis indivisa, I thought you might like the photograph I took last spring, and which may interest other readers. The plants are growing in our garden. The following extract is copied from "Plants of New Zealand," by Lang and Blackwell (Whitcombe and Tombs, Limited, Christchurch, New Zealand): "Plants of C. indivisa, with their festoons of starry white flowers, looped from tree to tree, light up with delicate beauty the edges of the dark bush in the early spring. It is not to be wondered that the Northern Maoris gave to this species the name of Pua-wananga, *i.e.*, the Sacred or Sanctified Flower. Its feathery wreaths of seed are almost as beautiful as the flowers, each seed in the cluster bearing a long, silky, silvery plume, which enables the wind to carry it to a distance. Pairs of rudimentary leaves are found beneath each flower-stalk, and these are believed to remain undeveloped, so that the flower may not be shaded or hidden from the sight of the insects upon which it depends for pollination.

"The leaf-stems coil themselves spirally round the branches of other trees, and so drag the plant up to the sunshine which is needed for the expansion of their flowers.

"When young, these leaf-stems are remarkably sensitive, and, if gently rubbed, will turn in the direction from which the friction comes. They will seize, therefore, and coil themselves around any twig or branch against which they are blown by the wind."

(Miss) M. E. BECKETT.

Christchurch, New Zealand.

COLUTEA LONGIALATA.

COLUTEA ARBORESCENS, the Bladder Senna, is a well-known garden shrub, for it is as conspicuous during autumn, by reason of its inflated bladder-like fruits, as it is earlier in the year by its golden blossoms. C. longialata is not, however, so well known, possibly on account of the two plants possessing so much in common that cultivators have not thought it necessary to grow the two species. It is, however, a good species, and has one great distinguishing point in the flowers, for, while in the case of the common Bladder Senna the wing petals are very small and extend but halfway along the keel, those of C. longialata exceed the keel in length. The flowers are golden in colour, and the fruits have the same dry parchment-like covering which is so familiar in the better-known plant. The Coluteas as a whole are a useful group of shrubs, for they thrive under all sorts of conditions and in both good and poor soils, while they rarely fail to give a good account of themselves. C. arborescens has attained a fair amount of popularity for planting on spoil heaps or heaps of colliery refuse. Such conditions are, of course, about as bad as one could select for shrub-life. D.

GARDENING FOR BEGINNERS.

HOW TO POT HYACINTHS AND TULIPS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Michaelmas Daisies, though rather tall, have been very pretty in the borders this year, and, associated with Chrysanthemums, have made, and are still making, a splendid display of blossom. There are few kinds of plants, though, that give to the borders a more untidy appearance if staking and

1.—POTS BEFORE AND AFTER POTTING HAS BEEN DONE.

tying are neglected. The present is a good time for the cultivator to thoroughly examine the plants, so as to be able to decide which ought to be renewed, increased, or removed to other positions so as to secure a better effect still next year. Some of the old roots of Chrysanthemums may be worn out. In such cases cuttings must be put in; other roots will be improved if they are lifted, divided and replanted. The roots of the Michaelmas Daisies are always strengthened if so treated, especially when they have attained to a large size. Seedling grass on new lawns must now be cut with a well-sharpened scythe. Only the tips of the grass should be cut off. Do not attempt to cut too low. Lawns where grass seeds was sown in August have been much improved by the recent rains, but the resultant plants must not be cut with a mowing-machine the same year, a sharp scythe being used instead. The new lawn must be rolled, however, and this need not be done during rainy weather. The best time is while the ground is fairly dry. Carnation plants in borders must now be well examined and put in order for the winter months. All weeds and leaves should be carefully cleared away from the base of each plant, also shrivelled "grass" on the stems of the plants themselves. Their immediate surroundings being thus made sweet and clean, less loss from decay of stems will be experienced during the winter.

Vegetable Garden.—Forced Rhubarb and Seakale are always much appreciated, and in order to obtain the best produce the roots must be duly prepared. It is quite useless to attempt to force weak crowns. If they are forced, only very small sticks and heads will grow, and the plants be quite spoiled for any future use; whereas, if such specimens are left in the ground or not in any way forced, they will greatly improve the following year. Having selected the best clumps of Rhubarb, clear away all faded leaves and weeds, and continue to do so until all the leaves have faded. Several weeks may pass before the crowns are naturally free of all leaves, but it is important that the work should be commenced now. The same attention must be given to Seakale, though the leaves will adhere for a longer period than those of Rhubarb. Where proper forcing-houses are provided, there will be no trouble entailed in getting material ready; but where all the forcing is done outside, it will now be time to commence collecting tree leaves to be mixed with littery manure later on, and also to see that tubs, boxes or pots are ready for placing over the crowns when the time comes for actual forcing.

Fruit Garden.—In many small gardens bush fruits can be grown with great success, and they are very remunerative. The following is a short list of reliable varieties: Currants, Black—Black Naples, Boskoop Giant and Black Champion; White—White Dutch; Red—Raby Castle, Comet Red and Red Dutch. Gooseberries, dessert—Berry's Early Kent, Langley Green, Pitmaston Green Gage, Crown Bob, Industry, May Duke, Red Champagne, Warrington, Whitesmith, Early Sulphur and Yellow Champagne; show varieties—Keepsake, Telegraph, Rifleman, Slaughterman, Careless, Leveller and Trumpeter. Raspberries—Superlative, Baumforth's Seedling and Yellow Antwerp. In the meantime, before procuring the bushes, thoroughly prepare the ground.

Greenhouse and Frames.—Table plants are now being more generally used, and as the short days are coming and less light, all plants must be kept reasonably near to the roof glass, especially fine-foliaged ones, so as to retain the rich colours in the leaves. Temporary shelves may be erected for the purpose, and in the warmest and lightest part of the structure. Chrysanthemums will now occupy much space in greenhouses, and as it is necessary to place the pots rather close together, the lower leaves of the plants will soon turn yellow and perish. These must be picked off, as if left on they would not further benefit the plants, but act as a hiding-place for insects. Violets in frames must have as much air as possible both day and night during fine weather. The earliest bulbs should now be placed in the cool frames and lightly shaded for three or four days; then gradually expose them to the full light. A. A.

POTTING HYACINTHS AND TULIPS.

JUST when the display in the outdoor garden in autumn is at its best, all careful gardeners begin to realise that it is time for them to look ahead and make provision for a floral display under glass in the succeeding spring. All too frequently the work of potting the bulbs is too long deferred, and then it is most unreasonable to expect good results to accrue. There is an advantage in potting up Hyacinths and Tulips in good time, as this allows a sufficient interval for the flower-spikes to develop under quite satisfactory conditions.

Bulb catalogues have been issued for some time past, and their receipt by the grower is a reminder that his order should be despatched forthwith. There is little doubt that those who procure their bulbs in good time obtain better specimens than those who defer making their purchases until somewhat later in the season. It does not follow that the largest bulbs are necessarily the best; varieties differ considerably in weight and character generally. A heavy bulb, in proportion to its size, is always to be preferred. In every instance the bulbs should be well ripened and as free from blemishes as possible.

Soil is, of course, the first consideration, and this, naturally, needs some preparation. Hyacinth may be grown in almost any soil, but the best results are invariably obtained from a compost that has been carefully mixed. Good fibrous loam and well-decayed cow-manure should be used in equal parts, and sand or clean road grit added at about the rate of a peck to a bushel of the soil. The heap must be given a proper mixing. The loam and cow-manure should be passed through a coarse sieve before mixing the soils together. This compost will do equally well for Tulips, but those who do not wish to incur much expense may utilise old Chrysanthemum soil for the same purpose.

Five-inch pots, as well as those 6 inches in diameter, are generally used for Hyacinths and Tulips, and before placing the soil in them they should be carefully crocked with potsherds. Cover the crocks with a piece of turfy loam to prevent the finer particles of soil working down into the drainage and clogging it. Proceed to fill the pots with the prepared compost, but do not press in the soil or make it firm in any way. Neither press the bulb into the loose soil to the requisite depth; this is the wrong method. The proper way to pot the Hyacinth is to make a hole by taking out a sufficient quantity of soil so that the bulb may be accommodated satisfactorily and at a suitable depth. That the beginner may understand how to proceed I have portrayed in Fig. 1 the method in which the potting of the Hyacinth is done. When the potting-up is completed, the bulbs of the Hyacinth should appear just above the surface soil, as shown in Fig. 2. After potting, water in the bulbs with clear water from a fine-rosed can and leave them to drain for a time.

In the case of Tulips the compost and pots should be prepared in precisely the same manner as suggested for Hyacinths. Three bulbs should be placed in a 5-inch pot and five bulbs in a pot 6 inches in diameter. The bulbs should be almost buried. Fig. 3 represents Tulips treated in the manner herein described. Each variety should

2.—A SMALL POT IS PLACED OVER EACH BULB. THIS PROTECTS THE GROWTH AS IT DEVELOPS.

be labelled as soon as it is potted up, and this will avoid confusion later on.

During the rooting process the pots of bulbs should be arranged on beds of sifted ashes outdoors and then covered with spent Hops, Cocoanut fibre, or any material of a similar nature to protect them from frost, and also to keep them in the dark. Successful exhibitors frequently stand the pots on boards arranged in a cold frame, covering the

pots with spent Hops or Cocoanut fibre, as in the case of those arranged outdoors (see Fig. 4). Only in the case of long-continued rain is it necessary to place on the frame-light. In about six weeks growth will have commenced, and in some cases be sufficiently advanced to justify their removal

3.—FIVE OR SIX TULIP BULBS MAY BE GROWN IN A 6-INCH POT AS SHOWN.

indoors. Gradually inure them to light and air by first removing them from the plunging material, and then by removing the small pots. D. B. CRANE.

STORING HARDY FRUITS.

A WELL-FILLED fruit-room is a very pleasing sight, and the contents deserve as much careful attention now as they did while growing on the trees. Apples, Pears, Medlars, Quinces and Grapes require ventilation while they are in the store almost as much as while growing on the branches of the trees or Vines. Cool, dry conditions with a rather buoyant atmosphere must obtain. When once hardy fruits are stored, the less handling they have the better they will keep; but it is necessary to handle them occasionally in order that decaying specimens may be removed and the sound ones rearranged. All choice fruits of Apples and Pears must be placed on shelves, the floor, or in shallow boxes one layer in thickness, not more. When the fruit is first gathered the store-room must be very freely ventilated. Then, as colder, damper and more frosty weather comes, the amount of ventilation should be considerably reduced. The Pears and Quinces must be stored in the warmest part of the structure and the Apples in the coolest. Some cultivators put down straw on which to lay the fruit. This need not be done; in fact, it is better not to use straw, but to place the fruit on clean, dry boards. If the shelves are open ones, so much the better, as air should circulate among the fruits as freely as possible. After being in the room for a short time the fruit commences to sweat; Apples do so very much. Inexperienced persons, thinking that the sweating is harmful, get a cloth and vigorously wipe them. This is a wrong thing to do. The sticky substance on the skins preserves the fruits, and it must not be wiped off. If fire-heat is necessary, either from hot-water pipes or stoves, great care must be taken not to overheat the structure. SHAMROCK.

HOW TO USE NITRATE OF SODA.

THIS manure is a strong stimulant for plants, and, rightly used, will do much good; but if improperly used it will do a great deal of harm. I know instances where it has been applied this year with disastrous results; hence this note of warning to beginners. In one case a very promising batch of Chrysanthemum plants was sadly crippled; in another, a young, inexperienced gardener applied the nitrate in strong and frequent doses to Dahlias, with the result that he had fine specimens but no flowers. He wondered why his plants failed to bloom. I will explain. Nitrate of soda acts very quickly; it induces rapid and luxuriant growth, especially in cases where the plants are well rooted and in good health. But if flower-buds are forming just at the time that the nitrate is given, their formation will be arrested and the branch bearing them will grow on very quickly, so that the flowers will be retarded, and when they do open it is more than likely that they will be coarse and inferior. When the weather is very bright and dry and plants are not making free growth, one, or at most two, doses of nitrate of soda will be beneficial and quite enough for the purpose, namely, the stimulation of growth. For pot plants a suitable dose would be 1oz. to 5 gallons of water, and for border plants 1oz. dissolved in 3 gallons of water. When the soil is dry, clear water should be given first. During dull seasons such as we have experienced this year, nitrate of soda ought to be used most carefully, and not at all in the autumn in cases where the plants are to be grown on throughout the winter. B.

SCHIZANTHUS SEEDLINGS.

NICE specimens of these plants are very acceptable in the spring-time for the furnishing of greenhouses and conservatories. To obtain such plants young seedlings must be kept through the winter. Now, the question arises as to which is the best way to treat the seedlings during that time. A shelf about 3 feet from the roof glass, where the plants will be fully exposed to the maximum amount of sunshine, is the ideal position. A rather poor compost is best at this season. That used in the new year must be richer, but the plants do better in a poor soil during the winter months. B.

THE TOWN GARDEN.

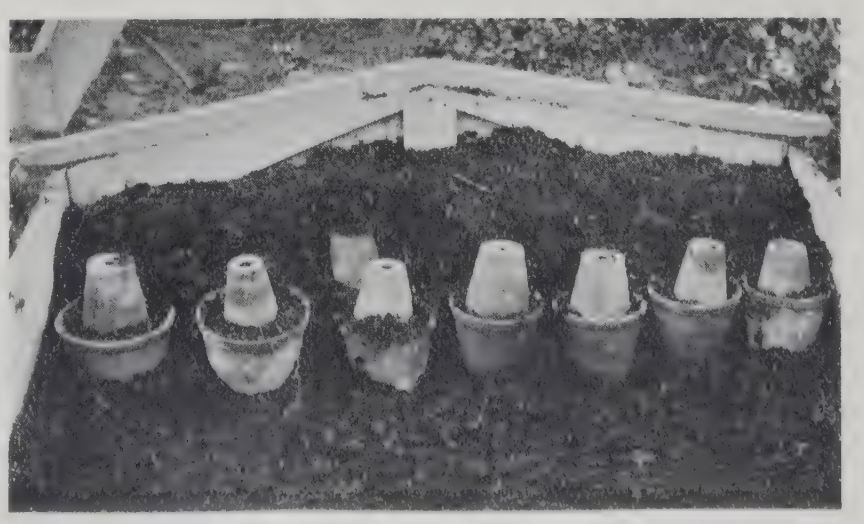
CURRENT WORK.—At any moment now severe frosts may be experienced that will put an end to the flowering of all tender subjects in the open, such, for example, as the Dahlia, Gladiolus and other plants, after which preparations should be made for lifting them. Indeed, the wind-storms recently experienced have already sadly marred such plants, sounding a sort of warning note that the time is at hand for taking them indoors. Dahlias, because of their bulk and weight of leafage, must of necessity be cut down to within a few inches of the soil prior to lifting them from their positions. Where named varieties are grown, it will be found a good plan to secure the label with fine wire to the stem, so that in any subsequent removal there will be no fear of mixing them. A rather lax way—and which is, unfortunately, too prevalent—is that of thrusting the label into the hollow stem or between the tubers, where it is easily dislodged. Dahlia roots when lifted should at once be taken to a shed or other place where shelter is provided from wind and frost, surrounding them with light soil or litter so that the roots do not dry too quickly.

GLADIOLI.—These need not be cut down at lifting-time; indeed, they will be best if lifted intact, placed in boxes and carried away to some place of shelter. There is no need for drying these at once, and the corms or roots will be safer in a little soil in cool quarters. Later on, when cleaning is being done, it will be seen that there are numerous small fry known as spawn, or bulblets, about the base of the bulb, and these of any good variety are worth saving for growing on again. These bulblets take two or three years to give good flowering roots, and they are certainly worth looking after.

MONTBRETIAS.—We are so accustomed to rule-of-thumb methods in the cultivation of a plant or group that radical breaks therefrom come sometimes as a surprise, and I confess to a mild attack of the same a year or two ago when visiting Mr. Davison, the noted raiser of the modern race of these flowers, and finding that annual lifting in October and April planting were regarded as essential to the best results. The isolated plant, the well-developed growth, fine stature and handsome spikes of flowers left no room for doubt, while the freedom from disease also bore testimony that the treatment was right. As a rule, however, they are left in beds and borders to produce thick, huddled-up masses and flowerless shoots, small spikes and flowers, and diseases galore result. Mr. Davison hangs up his Montbretias by the stems in the potting-shed, and these rested bulbs at flowering-time repay him for the shelter they receive from winter, wet and slugs. As Mr. Davison has no monopoly of the idea, every reader of THE GARDEN may imitate his methods as closely as he likes, to the benefit of his stock.

SOME GOOD CLEMATISES.—Upon more than one recent occasion some excellent and well-flowered examples of these have appeared at the Royal Horticultural Hall, and, among those shown, Lady Northcliffe (a splendid deep blue), Beauty of Worcester (also blue and very fine) and Mrs. George Jackman attracted my attention. The latter is a pure white flower, the most shapely of its class that I know. The Nellie Moser class (washed or suffused red) does not appeal to me, and I see greater beauty in the above or the very old Lady Caroline Neville of French grey tone, or the very distinct deep violet-flowered integrifolia Durandii, whose petals are of a remarkably firm texture. Viticella rubra, of claret hue, is valuable for the warmth of its colouring. It is a late-flowering sort, too, and mingles well with the autumn tints around. Such as these may be planted now.

HYBRID PENTSTEMONS.—Where cuttings of these were rooted in pots a short time ago, they should now be planted singly in pots of 3 inches diameter rather than permit them to starve in the cutting-pots throughout the winter. If potting them is inconvenient, they should be transplanted into boxes—anything, indeed, that will keep them moving for some time to come. The parent plants will only survive the winter outdoors in sheltered gardens, consequently it is necessary to take cuttings at this season. E. H. JENKINS.



4.—HYACINTHS PLACED IN A COLD FRAME AFTER POTTING.

NURSERY NOTES.

MESSRS. R. VEITCH AND SONS.

THE name of Veitch is so closely associated with all that is best and most interesting in the world of horticulture and its allied sciences, that no apology will be needed to the readers of THE GARDEN for bringing to their notice some of the most interesting features of the Exeter nurseries, of which Mr. P. C. M. Veitch is the chief.

As might be expected, especial attention is given to all plants that have proved hardy in the Western and South-Western Counties, and as the nurseries, both at Exwick and Exminster, face the east—the latter, indeed, is open to the River Exe—the plants are subject to the fullest test. Further, Mr. Veitch is a lover of trees and shrubs, and from his experience in Australia and New Zealand it is but natural that plants from those climates, which can be induced to flourish in the Mother Country, should receive his attention. Thus, for instance, on entering the Royal Nursery one is struck by the numerous fine shrubs and trees that border the walk on either side. Notospartium Carmichaeliæ is one of these, one of Mr. Veitch's own introductions from New Zealand, where it is known as the Pink Broom, from the rosy pink Pea-shaped flowers with which it is covered in the summer. At the Exwick nursery I saw a large stock of these young plants of all ages, from the earliest babyhood onwards. Here also is a fine specimen of Desfontainea spinosa, an evergreen shrub bearing bright scarlet, tubular flowers tipped with orange. Though it is said not to be hardy in all localities, it flourishes in the climate and soil of Exeter so satisfactorily that a large stock of plants are always in hand. This species flowered for the first time in this country at Exeter in 1853. Well-grown plants of good size are also to be found here of that singular genus Colletia, both C. cruciata and C. horrida. Magnolias, Rhododendrons and Bamboos receive special attention, stocks of which in every stage of growth are to be seen in all three of the nurseries. Among Magnolias I noticed a very fine lot of the Exmouth variety of M. grandiflora, propagated from the original plant grown in the Exeter nursery. It does equally well as a standard or against a wall, and long stretches of it are shown under both conditions, plants of three to four years old or from 3 feet to 4 feet high producing fully developed flowers. Of other species of Magnolia in greater or less abundance I noticed M. acuminata, M. Campbellii, M. conspicua, M. Fraseri, M. hypoleuca, M. Kobus, M. glauca and other species and varieties. Rhododendrons are also made a special feature, both the hardy and greenhouse varieties. Of the former, which are grown in very large quantities at Exminster, I noticed sturdy plants of R. Falconeri, R. Aucklandii, R. Fortunei, R. Hodgsonii and, of course, the new variety Dr. Stocker. The plants of this variety grown at this nursery, both large and small, are entirely out of doors, and have withstood some severe frosts, setting their buds freely and flowering regularly. It flowers out of doors in May.

A very interesting plant is Guevina avellana, of which a few plants only have at present been raised. It belongs to the interesting Order Proteaceæ, the members of which have their homes in Australia, New Zealand and the Cape of Good Hope, with a few outliers in India and South America, to which continent Guevina belongs. Its leaves are of a pretty light glaucous green, and the plant bears bluish fruits about the size of a large marble, the kernels of which are edible. Many years ago a large number of species of Proteaceæ were cultivated as ornamental greenhouse plants, such as the Proteas, Banksias and Dryandras, some of which might well be restored.

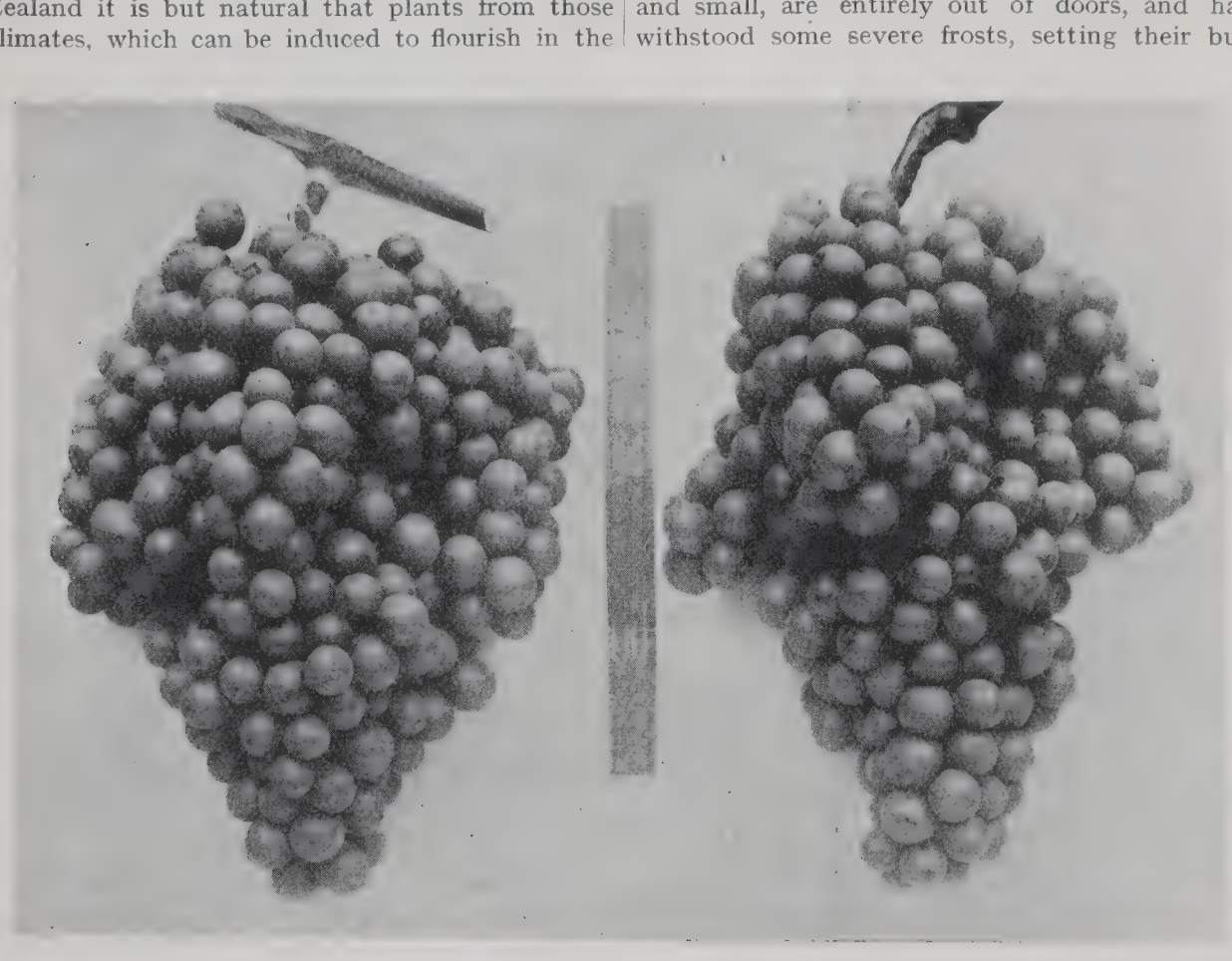
Hypericum patulum var. Henryii is a plant much valued for its hardy habit and late autumn flowering. It has carried off an award of merit from the Royal Horticultural Society, as also has the new Calceolaria Golden Glory. As seen in masses in the Veitchian nurseries the latter is a brilliant sight. Not only as a greenhouse plant, but in the open, as a hardy herbaceous plant, it promises to take a high position, both for the brilliancy of its colouring and for the length of time it continues in bloom. The fact of its having stood 20° of frost is one of its strong recommendations, to which must be added its freedom in seeding. With a plant of such a sturdy habit to work upon, some further developments in colour may be expected, and indeed, are in progress at the Exeter nursery.

Limitation of space will allow me to speak only of a very few of the interesting plants at Exwick and Exminster, notwithstanding their extensive area and the large stocks of many individual species. On entering the Exwick nursery one is at once attracted by some fine lots of young, healthy and well-grown plants of Eucalyptus viminalis, E. coccifera and several other species. Close by was a large bed of the magnificent Californian Tree Poppy (Romneya Coulteri) in full blossom, a perfect proof of its free growth and florescence and how well it becomes established in the West. The noble New Zealand Forget-me-not (Myosotidium nobile) is here represented by a very large stock of strong young plants, as well as Fremontia californica, Mutisia decurrens and the red-flowered M. Clematis, both of which are hardy in the West.

Hardy Fuchsias are here in great variety. Among others I noticed the following: F. pumila (a very minute form, suitable for rock gardens), F. macrostemma, F. macrophylla, F. corallina, F. gracilis and F. exoniensis. Here also are finely grown plants of Astilbe Davidii (purple) and A. grandis (the white-flowered variety). Rhododendrons are also to be seen in great quantities and variety, in addition to those before referred to. Azaleas also are numerous and varied. Iris Kæmpferi grows in abundance and flowers freely, while Gladioli of all kinds, including Groff's hybrids, some of the purples and crimsons of which were remarkable for their brilliancy, make a fine show.

It remains for me only to say that fruits and vegetables also are freely represented in the nurseries, and that at Exwick a very large area is covered with Peaches, Plums, Apples and Pears, all in perfect condition. This is what might be expected when it is remembered that Mr. P. C. M. Veitch is a member of the fruit committee of the Royal Horticultural Society, and as such is a fruit specialist. With regard to vegetables, the following are some of the introductions of the firm which have gained first-class certificates or awards of merit from the Royal Horticultural Society: Peas—Veitch's Perfection, Exonian, Glory of Devon, Western Express and Goldfinder; Beans—Veitch's Climbing French Bean; Cabbage—Earliest of All; Lettuces—Duke of Cornwall and Continuity. Almost from the commencement the firm has held a high reputation in landscape gardening and the formation of rock gardens, especially in the West of England, the most notable, perhaps, being at Rystock, near Exmouth, and Lilford Hall, Northamptonshire.

JOHN R. JACKSON.



GRAPES SHOWN BY THE DUKE OF NEWCASTLE AT THE EXHIBITION OF BRITISH FRUIT LAST WEEK. THE VARIETY IS GROS GUILLAUME. (*See page* 532.)

NEW PLANTS.

CYPRIPEDIUM KING GEORGE V.—This was the only Orchid to gain a first-class certificate. It carries a very bold flower with a broad and well-marked upper sepal. Its parentage is not recorded. Shown by Mr. E. V. Low, Vale Bridge, Hayward's Heath.

An award of merit was granted to each of the following Orchids:

Lælio-Cattleya Golden Oriole superba, shown by Colonel Sir G. Holford, K.C.V.O., Westonbirt, Tetbury, Gloucestershire. It has bright golden flowers with crimson veins showing in the lips.

Lælio-Cattleya Ortrude magnifica.—This variety has mauve-tinted flowers with deep crimson lips. Also shown by Colonel Sir G. Holford.

Cattleya Basil. — A bright mauve-flowering variety with deeper-coloured lip. The petals are rather short, and, being very broad, overlap one another, giving the flowers a remarkably good form. Shown by Messrs. Charlesworth and Co., Hayward's Heath, Sussex.

Catasetum fimbriatum aureum.—Shown by J. G. Fowler, Esq., Glebelands, South Woodford. An interesting Catasetum with orange lip, the flowers being greenish in colour, covered with small dark spots. Like other Catasetums, it is of great botanical interest, but to the horticulturist it appears more curious than beautiful.

Carnation Scarlet Glow.—A glorified Britannia and a superb flower in every way. The form is excellent and the petal substance superb.

Carnation Shasta.—The deeply fringed character of the petals add a novel feature to a pure white flower. It is certainly most artistic. The above were shown by Mr. G. Lange, Hampton, the first-named coming also from Messrs. Stuart Low and Co., Enfield.

Carnation White House.—A flower of large size, fragrance and purity; need we say more? From Messrs. William Wells and Co., Limited, Merstham.

Chrysanthemum Cranfordia.—A very handsome yellow-flowering variety, the stems stiff and long.

Chrysanthemum Miss F. Collier.—A flower approximating in its whiteness to Elaine, and there is more than a suspicion to the weak peduncle of the latter when not well grown. These were exhibited by Mr. Roots, Cranford.

Gesnera Orange King.—An invaluable plant for the warm greenhouse at this season. The brilliant fiery orange flowers are produced in pyramidal panicles above velvety leafage of a bronzy hue. From Her Grace the Duchess of Bedford, Chenies.

Chrysanthemum Mary Poulton.—The colour is pink, the flower-head being of large size. Exhibited by Mr. Poulton, Tunbridge Wells.

Aster ericoides Perfection.—That this is a well-nigh perfected form of the ericoides class should be recommendation enough. It is, however, most profuse and of elegant bearing. Exhibited by the Hon. Vicary Gibbs, Elstree (gardener, Mr. E. Beckett).

Ligustrum Henryii.—A new and very distinct species of Privet from China. It is a neat-looking and attractive evergreen shrub with small, glossy, dark green, oppositely placed ovate leaves, which remind one of a small-growing Myrtle. From Messrs. James Veitch and Sons, Limited, Chelsea.

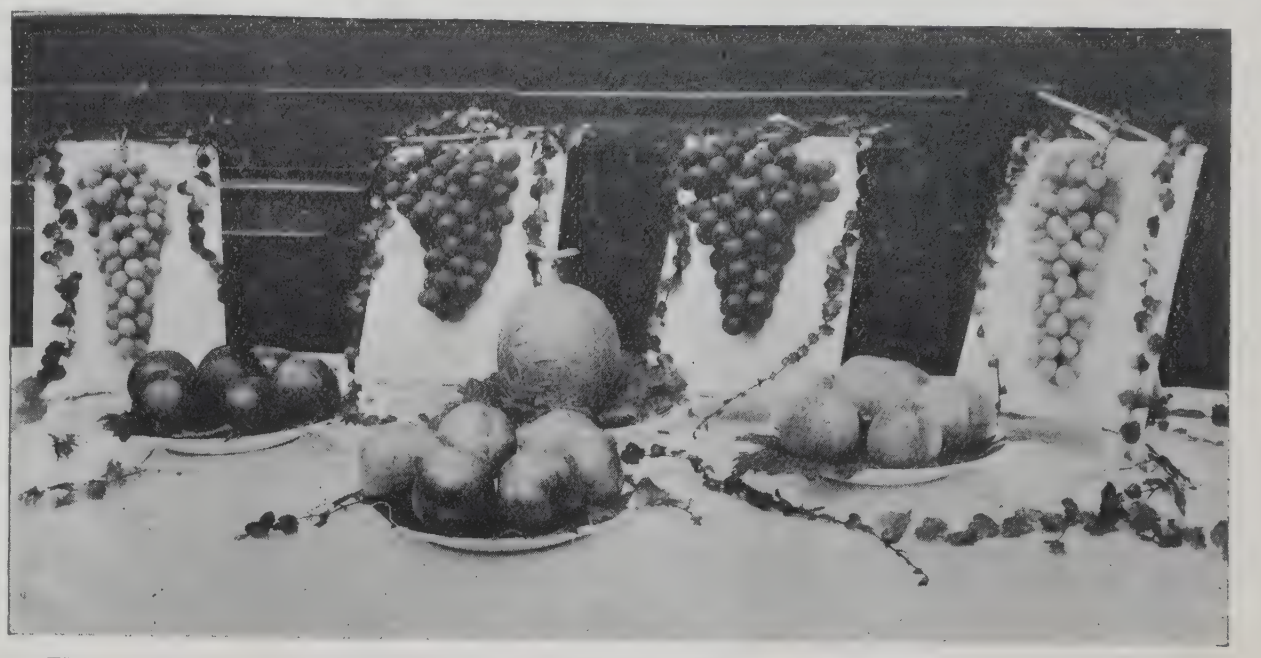
Symphoricarpus mollis.—The most free-fruited member of the Snowberry Tree we have seen. The fruit-clusters are terminal for the most part and racemose, and because of the great size of the fruits individually and the freedom with which they are produced, the newcomer is a great attraction. An invaluable plant for effective grouping. From Messrs. James Veitch and Sons, Limited, Chelsea.

Each of the foregoing received an award of merit on October 11, when exhibited before the Royal Horticultural Society.

THE EDITOR'S TABLE.

DIMORPHOTHECA ECKLONIS FROM SUSSEX.

Mr. J. Comber, Nynams Gardens, Handcross, Sussex, sends us flowers of this beautiful plant with the following note: "This handsome Cape Marigold has been grown here since it was sent out by Messrs. Barr and Sons in 1906. The plant is vigorous, covered with dark green foliage, and about 2 feet to 2½ feet in height. Its white, Marguerite-like flowers, with dark blue disc in the centre and mauve reverse to the petals, are produced throughout the season. Cuttings root freely when treated similarly to Pentstemons. Plants obtained in this way flower more freely than those from seed. Choose a sunny place in which to plant, and stake as the plants attain size. D. aurantiaca and D. pluvialis should be treated as annuals, and both are beautiful free-flowering plants for the summer flower border. The former has starry flowers of golden orange hue, with a black central ring. The latter, better known perhaps as Calendula pluvialis, has white flowers very similar to those of D. Ecklonis, except that the centre is of a bright golden colour."



THE FIRST PRIZE COLLECTION OF DESSERT FRUIT IN CLASS II. AT THE BRITISH FRUIT SHOW. (*See page* 532.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Plants for a blue border (*W. Young*).—We presume you do not desire to confine yourself to the four plants you name, one of which, the Veronica, could hardly be described as blue. A border of the extent you name would require a great variety of plants if it were expected to get a season's flowering from it. Here are some of the best things for such a border: Delphinium King of Delphiniums, D. formosum, D. Belladonna, D. chinense (annual), Anchusa italica Dropmore variety, D. i. Opal, blue Cornflowers, Eryngium olivierianum, Echinops Ritro, Veronica subsessilis, Irises of sorts, Campanula grandis, C. persicifolia (blue shades), C. lactiflora cærulea, C. carpatica, C. c. Isabel, C. c. Riverslea, Aster Amellus, A. acris, A. Novi-Belgii Ariadne, A. N.-B. densus, Verbena Lovely Blue, Salvia patens, S. azurea, Viola Blue Bell, V. cornuta purpurea and the like. These or similar plants should be arranged in groups of a dozen or more, setting the taller kinds in the background and working therefrom with plants of shorter growth. Aster sinensis in variety would make a fine display of colour. If you can give us fuller particulars of what you want, we might be able to help you further.

Plants for small garden (*Mrs. Ford*). — The whole of the plants named in your list would be worthy of inclusion in your garden save Lactuca villosa and Saponaria officinalis flore plena. Statice superba by this name we do not know. The Ceanothus would require the protection of a 6-feet-high wall, and a much light e soil should be provided for planting. Of the Spiræ a named, Anthony Waterer is the best. If you could send us a spray of the crimson Spiræa to which you refer, we may be able to name it. If it belongs to the herbaceous section it is probably S. palmata, whose flowering, however, at this time of year would be unusual.

Hollyhocks diseased (*C. A. G.*).—We recommend you to remove and burn all the leaves that are withered, and to spray the plants and the soil about them at frequent intervals with a rose red solution of potassium permanganate.

THE GREENHOUSE.

Treatment for Rehmannias and Ixias (*N. G. H.*).—As there are so many dwarf plants available for greenhouse decoration, the tall, stately habit of Rehmannia angulata is by many considered to be a most desirable quality. We are afraid that you will not meet with any measure of success in an attempt to render them more dwarf, for if the shoots are pinched back the flowering portion will be naturally weakened. Of course, the more they are exposed to light and air the more sturdy the plants will be. We may point out that there is a dwarf-growing Rehmannia known as R. Henryii, with much lighter-coloured flowers than those of R. angulata. It is a decorative subject of quite a dwarf habit. There is a hybrid between the two (R. Briscoeii) raised by Messrs. Veitch. We cannot understand the leaves of your Ixias breaking off in the manner described, for we have never met with a parallel case. The only thing we can suggest is that possibly the frame was kept too close, causing the tissues of the leaves to weaken, and then if they happened to get a little too dry at the root the leaves would topple over and break.

Creeper for conservatory wall facing south (*Mrs. B. G.*). — Rhyncospermum jasminoides should be just the thing for the back wall of your greenhouse, the flowers being freely produced, and the foliage retains its deep, rich colour throughout the year. Other subjects that might please are Clematis indivisa, white flowers in spring; Cestrum (Habrothamnus) aurantiacum, orange flowers, end of summer; and Hibbertia dentata, yellow flowers, winter and early spring.

ROSE GARDEN.

Pink and yellow Roses losing their colour (*C. E. J.*).—You can materially aid the Roses to produce heightened colour by giving the plants waterings with soot-water during the growing period, and a small quantity of sulphate of iron scattered on the soil will also be beneficial. Some dried blood used as a fertiliser in addition to the manure given in autumn is also good. Although cow-manure is good, there is no great amount of stamina in it, so that we advise you to water your Roses with a good stimulant such as suggested above, varying the food each week throughout May and June. Wakeley's Hop Manure is an excellent article for heightening colour in Roses. Some of the yellow sorts keep their colour better if shaded, notably Marquise de Sinety and Perle des Jardins.

Transplanting Roses (*F. A. S.*).—It is quite possible that your Roses will suffer from being transplanted during the dry weather. You would have done better to have left the work until the young shoots were well ripened. It is not likely that they will suffer permanently, especially if you give them a good mulch of well-rotted manure. Water them occasionally, and syringe the branches two or three times a day while the dry weather lasts. Had the weather been moist, you would probably have gained by early transplanting; as it is, you will most likely lose a portion of the current year's shoots.

FRUIT GARDEN.

Black Hamburgh Grapes shrivelling (*Blackie*).—We suggest that the cause of the Black Hamburgh Grapes shrivelling is due to their not being properly ripened or coloured. The reason for their not colouring properly may be due to overcropping, defective root-action, red spider injuring the foliage, or to other causes inimical to the health of the Vine. We can find no fault with the soil or the condition in which it is in.

Fruit trees which are making a too free growth (*Outlook*).—Our correspondent's case is clearly a question of root-pruning. This is the only satisfactory way to deal with such trees. By the agency of root-pruning this over-vigorous growth of wood will be arrested and the growth of fruiting wood (wood-spurs) encouraged instead. Once a tree is brought to a full condition of fertility there is then no danger of a too free growth of branches. Undoubtedly fruit trees may be propagated by cuttings, as witness Vines, Gooseberries and Currants. But in the case of Apples, Pears, Plums and Cherries, the process would be slow compared to budding or grafting on strong stocks already well rooted. The end of this month is a good time to put the cuttings in.

Grape Alnwick seedling stoneless (*Constant Reader*).—It is not at all uncommon to find this Grape acting in this way. The only way to obviate the difficulty is to do as our correspondent has done, namely, to fertilise the blossoms with pollen from another variety, If pollen of other varieties is not obtainable while the Vine is in bloom, then its own pollen must be disbursed by a camel-hair pencil.

Apple foliage diseased (*A. R.*).—Your trees are suffering from an attack of fungus commonly termed "rust." It is the same as that from which the Raspberry and the Bramble so frequently suffer—Phragmidium Rubi-Idaci. As a rule, it does not do much harm to the trees, but it is likely to reappear year after year if not destroyed, and the best way to do this is by burning the leaves as they fall in the autumn and to spray the trees in winter with Bordeaux mixture.

Vine foliage diseased (*W. W.*).—Your Vines are very badly infested with red spider. It is quite hopeless to expect to be able to grow good Grapes while the Vines are permitted to become so infested with this tiresome pest as yours are. If most of the leaves on your Vines are in the same condition as those you sent us, we would not give much for the prospect of success for such Vines for two or three years to come, even under the best system of culture. The best thing for you to do now will be to make the hot-water pipes boiling hot by hard firing on the evening of a damp, calm day, and then paint the pipes over with flowers of sulphur made into the consistency of thick paint by adding water, adding also half an ounce of Tobacco dust to each gallon of the mixture. Close every aperture, hole and cranny of the vinery by which the sulphur fumes could escape while the firing is going on. Keep up a strong heat for three hours. Keep the vinery close the whole of the next day, shading the Vines if the sun shines. Repeat the heating of the pipes and painting with sulphur the two following nights, still keeping the house close and shaded, and we think and hope you will find the spider destroyed. You should burn every leaf that falls. Syringe the Vines every morning and late in the afternoon in order to try and encourage a little fresh late growth. Give plenty of air day and night, and be careful the roots are not dry.

Golden Drop Plum tree dying (*F. W. D.*).—It is difficult to say what has been the cause of the injury, if not the death, of your tree. The silver-leaf disease is responsible for the death of thousands of Plum trees annually. It is specially prevalent in the Thames Valley, and this may have been the cause of injury to your tree. It is impossible to tell from the shoots and leaves sent, as they are both quite dead, and the fruit also. If the tree is injured all over as severely as the branches to hand, the prospect of its doing any more good is very remote. Of course, it may be that lightning is responsible, or that through some cause or other its roots have been injured. It is an interesting case, and we advise you to call in, if possible, an expert fruit-grower, who would be able to throw more light on the matter.

KITCHEN GARDEN.

Making a Horse-radish bed (*Amateur*).—First deeply trench the ground fully 2 feet in depth and work in plenty of well-decayed manure, so that the soil is rich at the bottom and rather poor at the top. Then plant the pieces of Horse-radish root, each about 6 inches long, from 6 inches to 9 inches apart in rows, which should be about 1 foot apart. Some make a deep hole for each with a crowbar and fill up with fine soil. Another way is to make up beds in the same way as those made for Asparagus, and plant the roots, each about 9 inches long, laying them in a horizontal position just below the surface. These pieces send out roots into the richer soil below and soon become of a good size. When ready, which takes about two years, the horizontal pieces are cut off for use, and the smaller ones which have grown from them are used for making fresh beds. To keep up a good supply fresh beds should be made every year.

MISCELLANEOUS.

Road manure and garden plants (*Subscriber*).—We fully realise the harm done to plants in gardens by using manure collected from tarred roads. It has frequently been found to be injurious to vegetation. Even on the high roadsides we have seen the tar dust when falling on the common Bracken quite burn it up. Many roadside dwellers complain of the harm done to plants in their gardens from the dust chiefly, although when the sun shines hotly no doubt a gaseous atmosphere is created that is very harmful also.

Lawn weed (*Sutton*).—The weed, of which a sample is sent, is apparently one of the creeping Herniarias, and once it gets a hold in a lawn is difficult to eradicate. Practically there is no better way to keep it in check than by the constant use on it of a sharp-toothed rake. It is not so aggressive as the creeping Clover, but it grows so rapidly that it displaces the grass. Having such small leafage it is not affected or burnt by lawn sand, as are larger-leaved weeds. Weed seeds often lie dormant in pastures or lawns for many years.

Plants for ditch (*Constant Reader*).—Spiræa Aruncus, S. venusta, S. palmata, S. gigantea, Caltha or King-cup, Saxifraga peltata, Astilbes, Trollius, Osmundas, Struthiopteris and other Ferns, Primula japonica, Lilium pardalinum, L. superbum, Rogersias (not in the wettest parts), Narcissus Emperor, Lythrum, Lysimachia, Iris sibirica, I. Pseud-acorus and I. lævigata, or I. Kæmpferi if given a place where its root-fibres just reach moisture, are a few of the bolder subjects delighting in moist places. There are, of course, a large number of dwarf-growing things suitable as carpeters to the above, while such plants as Primula Sieboldii in variety, P. rosea, Anemone robinsoniana and many others which delight in moisture give beautiful pictures of colour. The coarse-growing grass in the lawn you had better weed out, sowing some fine grass seed (which would doubtless improve the lawn as a whole) to take its place.

Cement tank (*J. W. B. Whetham*).—In a tank of the description named it would be more convenient perhaps to arrange soil compartments or plant the Lilies in crates of soil. Temporary soil compartments might be arranged at intervals with heavy stones around that, while keeping the soil together, would permit of the water draining away when the tank was emptied for cleaning. In this way a fair depth of soil would be assured to the plants without covering the whole of the tank to the depth named. The Lilies that have not grown are not likely to start this season, and a little later should be examined to see if they are alive. If dead, those in the tubs could be transferred at any time when the foliage has died down. In your district the Romneya should require but little pruning beyond the removal of old flowerless branches. If the plants are in good health, strong shoots should appear from the base each year, and these, if allowed to remain, should give an early display of flowers the following summer. When removing small and flowerless shoots cut them away practically to the ground-level.

Names of fruit.—*Cleric.*—Beurré Giffard.——*Robert Strickland.*—1, Wellington; 2, Dutch Mignonne.——*S. Marston.*—The Grape is Black Hamburgh. This variety varies considerably, and if the Vines are growing at a cooler end of the house this would account for the fruits ripening later.

Names of plants.—*Combe Hill.*—The Rose is neither Mrs. Aaron Ward nor Mme. Constant Soupert, but Marquise de Sinety.——*F. B. M., Guernsey.*—Campanula isophylla.——*C. S. Gordon.*—Ipomœa versicolor.——*E. Thomason.*—The Rose had dropped to pieces when it reached us.——*Mrs. Mills, Steventon Manor.*—Alstrœmeria species. Plant on a south border.——*T. H., Wellingborough.*—In the case of a sapling so young it is difficult to say with certainty what it is, but we believe it to be the common Birch (Betula alba).

SOCIETIES

ROYAL HORTICULTURAL SOCIETY'S FRUIT SHOW.

On October 13 and 14 the Royal Horticultural Society held its sixteenth autumn fruit show in the Horticultural Hall, Vincent Square, Westminster. In spite of the unfavourable reports that have been circulated this year in regard to the fruit crop, this show proved an unqualified success. Apples in particular, from all parts of the British Isles, were remarkable for their high quality.

OPEN TO GARDENERS AND AMATEURS.

Fruits Grown Under Glass or Otherwise.

Collection of nine dishes of ripe dessert fruit, six kinds at least, only one Pine, one Melon, one black and one white Grape allowed, not more than two varieties of any other kind and no two dishes of the same variety.—The first prize and silver cup in this class were awarded to C. A. Cain, Esq., The Node, Welwyn, Herts (gardener, Mr. T. Pateman), whose fine collection included a well-netted Melon Hero of Lockinge, Black Alicante and Muscat of Alexandria Grapes, Plum Coe's Golden Drop, Peach Lady Palmerston, Apples Cox's Orange and Duchess's Favourite and Pears Pitmaston Duchess and Beurré d'Amanlis. The collection was noteworthy rather for its general utility and uniform size than for anything else. Second, J. A. Nix, Esq., Tilgate, Crawley, Sussex (gardener, Mr. E. Neal), who staged Grapes Appley Towers (black) and Muscat of Alexandria, also Cantaloupe Melon, Nectarine and Prince of Wales Peaches, Ben's Red and James Grieve Apples and Doyenné du Comice and Pitmaston Duchess Pears.

Collection of six dishes of ripe dessert fruit, four kinds at least, only one Melon, one black and one white Grape allowed, not more than two varieties of any other kind and no two dishes of the same variety, Pines excluded.—The first prize and silver cup collection in this class from Lord Belper, Kingston Hall, Derby (gardener, Mr. W. H. Cooke) was a really superb lot and splendidly staged. The two bunches of Gros Colmar Grapes were grand, both in size of berry and finish; the bunches of Muscat of Alexandria were equally good; while the dishes of Cox's Orange Apples and Gladstone Peach were among the finest we have seen. Pear Doyenné du Comice and Eminence Melon completed a very fine lot. This exhibit is illustrated on page 531. Second, His Grace the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), who showed Madresfield Court and Muscat of Alexandria Grapes, Pitmaston Duchess Pears, Sutton's Scarlet Melon, and King of Tompkin's County Apples. Third (equal), Sir C. E. Hamilton, Bart., Hatley Park, Sandy, Beds (gardener, Mr. T. W. Birkenshaw), and H. St. Maur, Esq., Newton Abbot (gardener, Mr. G. Richardson).

Grapes, four varieties, selected from the following: Madresfield Court, Mrs. Pince, Muscat Hamburgh, Muscat of Alexandria or Cannon Hall (not both), Mrs. Pearson and Dr. Hogg, two bunches of each.—There was only one exhibitor in this class, the first prize not being awarded. Second, A. Benson, Esq., Upper Gatton Park, Merstham, Surrey (gardener, Mr. H. Cornish), whose set included Muscat of Alexandria, Madresfield Court and Mrs. Pince.

Grapes Black Hamburgh, two bunches: First, Lord Hillingdon, Sevenoaks (gardener, Mr. J. Shelton); second, J. A. Nix, Esq., Tilgate, Crawley, Sussex. In each case the bunches were small and of an inferior standard generally.

Grapes Mrs. Pince, two bunches: First, Lord Hillingdon, Sevenoaks (gardener, Mr. J. Shelton), whose bunches of this not easily grown variety were well finished; second, H. St. Maur, Esq., Newton Abbot (gardener, Mr. G. Richardson).

For two bunches of Grapes Black Alicante, the first prize went to the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), with superbly berried, well finished bunches; second, W. G. Raphael, Esq., Castle Hill, Englefield Green (gardener, Mr. H. H. Brown); third, Sir Walpole Greenwell, Bart., Marden Park, Surrey (gardener, Mr. W. Lintott). There were six entries in this class.

THE GARDEN.

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CONTENTS.

Autumn Colour in the Garden 533
Notes of the Week
Forthcoming events 534
Spring show at Huntingdon .. 534
"Hints on Planting Roses" 534
A Colonial fruit exhibition 534
Correspondence
Suggestion for a spring bed to be planted now .. 534
Winter Roses for market and home use 535
Fungus-proof Hollyhocks 535
Gardening of the Week
For the South and South Midlands.. 535
For the North and North Midlands.. 535
Nursery Notes
Messrs. Stuart Low and Co. 536
Kitchen Garden
Notes on vegetables 536
Rose Garden
Rose hedges 537
New Roses of the year 537
Flower Garden
Michaelmas Daisies and their culture 538
Gardening for Beginners
Garden work week by week 540
Planting bush and climbing Roses .. 540
Winter treatment of Lobelia cardinalis 541
The Town Garden.. 541
Chrysanthemums
Seasonable notes .. 542
New Chrysanthemums 542
Notes on Tulips.. .. 542
Answers to Correspondents
Flower garden .. 543
Trees and shrubs .. 543
Rose garden 543
Greenhouse 543
Fruit garden 544
Miscellaneous .. 544
Societies 544

ILLUSTRATIONS.

Malmaison Carnation house at Bush Hill Park.. .. 536
Aster D. B. Crane in Mercury Gardens, Romford .. 537
Aster Perfection in the gardens at Aldenham House 538
Aster Mesa grandiflora 539
Aster Delight in Aldenham House Gardens 539
How to plant bush and climbing Roses 540, 541

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

AUTUMN COLOUR IN THE GARDEN.

THE brilliant tints assumed by the leaves of a large number of trees previous to falling, aided by the no less bright-coloured fruits of many trees and shrubs, are responsible for gorgeous effects. Some trees are very disappointing in autumn, as their leaves fall, a few at a time, over a considerable period without assuming a rich colour, while at no time is such an effect produced as by a tree which retains its leaves until the majority are coloured. The common Lime is perhaps one of the worst offenders in this way, as it frequently commences to lose its leaves in August. The Beech, on the other hand, keeps its leaves much later. The leaves of the Elm, again, usually die off a rich golden colour, and are frequently retained until the middle of November. The Ash is erratic in its behaviour, for although we occasionally see the foliage a rich shade of yellow, it more frequently succumbs to a cold night and falls in a few hours while still green.

The Walnut cannot be considered very beautiful in its colouring, but the members of an allied family, Carya—or the Hickories, as the trees are familiarly spoken of in America—are among the most beautiful of all exotic trees. All the species are showy, but none can compare with C. tomentosa for effective colouring. The leaves of this are of a brilliant golden hue. Another exotic tree whose leaves turn to a pretty golden colour is the Honey Locust (Gleditschia triacanthos). The foliage in this instance is divided into numerous tiny leaflets, which have a light and dainty appearance. As a contrast to this the curiously truncate leaves of the Tulip Tree are conspicuous; the colour in this instance is golden also. A disappointing tree is met with in the Plane, for the leaves do not assume a very bright colour. For a rich brown nothing surpasses the Deciduous Cypress, which from early spring has been conspicuous by its columnar habit and bright green leaves.

The somewhat rare Parrotia persica, which is prominent in spring by reason of its multitude of small, bright red blossoms, is gorgeous in autumn owing to its many-hued foliage, for the colour embraces orange, bright red, deep red, bronze and green. Anyone who has seen Waterer's Scarlet Oak, which goes by the name of Knap Hill Scarlet, cannot fail to have been impressed by its glorious colouring, for the leaves change to a rich shade of red and remain several weeks in this condition. The Sumach or Rhus family provides several showy-foliaged subjects, and one only needs to instance the orange and scarlet foliage of R. cotinoides, the yellow and red of R. typhina, and the rich scarlet and orange colouring of the poisonous R. Toxicodendron. Several of the Thorns provide rich colouring, but all have to give place to Cratægus prunifolia for general effect, the foliage being rich with bronze, red and gold. The leaves of Amelanchier canadensis sometimes assume a scarlet and orange colour, but the tree cannot be depended on; some specimens colour well, others do not. For pure gold the choice Pseudolarix Kæmpferi, or Chinese Golden Larch, has probably no equal.

Some of the Barberries likewise assume a rich colour in autumn, Berberis Thunbergii being one of the most beautiful. Though Hamamelis virginica is the poorest of the Witch Hazels so far as flowering is concerned, it is the most showy species in autumn, for the leaves turn to a pretty golden shade. Clerodendron trichotomum differs from other shrubs by its leaves taking on a purplish hue.

The Vines open up a wide field of beauty, for many of the species colour very finely. Ampelopsis Veitchii, or Vitis inconstans as it ought to be called, is gorgeous on many walls, while V. Coignetiæ and the garden V. Thunbergii both colour well. The best colour is obtained, however, when the plants can make unrestricted growth, as when they are allowed to run wild over an old tree or pergola. Cotoneaster horizontalis frequently gives a feast of scarlet and gold. These are but a few of the many showy-leaved trees and shrubs we have at our disposal; but we must leave them and turn to the bright-coloured fruits which so ably assist in the general landscape effect.

The various Crabs are always showy, and it is only necessary to instance such subjects as Pyrus baccata, P. prunifolia, P. Ringo, John Downie Crab and others of the same class to direct attention to their value. P. Aria and its many varieties also provide a feast of colour, the variety majestica perhaps having most in its favour. The Mountain Ash (Pyrus Aucuparia) is well known to most people, and both this and its numerous varieties are particularly showy. Among the Thorns a large number of showy kinds are to be found, a few which occur to me as being

particularly beautiful being Cratægus mollis, C. coccinea, C. punctata and its yellow-fruited variety xanthocarpa, and C. Crus-galli. The Cotoneasters also provide a number of very showy-fruited species. Some of the brightest are C. frigida, C. buxifolia, C. microphylla and C. horizontalis.

Roses are a host in themselves, for the majority are showy, from the wild Rose of our hedges to the Japanese Rosa rugosa with its large, round, Apple-like fruits. Berberis vulgaris is a charming shrub, for its scarlet berries are in such profusion as to form a festoon of every branch. A distinct contrast is noticeable in B. aristata, for in this instance the fruits are very deep purple, covered with a glaucous bloom. Pernettya mucronata is a showy-fruited evergreen, its red, white, pink or purple berries being very conspicuous among the tiny dark green leaves. The scarlet and golden fruits of the Strawberry Tree (Arbutus Unedo) are conspicuous in some years, though in certain districts they are not to be relied on. Curious rather than beautiful are the inflated fruits of the Staphyleas and Coluteas, while the same thing may be said about the long, flat, twisted pods of Gleditschia triacanthos. Hippophae rhamnoides is conspicuous with golden fruits, which will hang well into the winter, and the various Spindle Trees are responsible for a gay display. W. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 1.—Brighton Chrysanthemum Show (two days). Bournemouth Horticultural Society's Show (two days). Hayward's Heath Chrysanthemum Show (two days).

November 2.—National Chrysanthemum Society's Exhibition at the Crystal Palace (three days). Kent County Chrysanthemum Show at Blackheath (two days).

November 3.—Forest Gate and Stratford Chrysanthemum Show (three days). Spalding Chrysanthemum Show.

November 4.—Sidcup Horticultural Society's Show (two days). Battersea, Clapham and Wandsworth Show (two days).

Spring show at Huntingdon.—The Huntingdonshire Daffodil and Spring Flower Society is now making preparations for the exhibition next spring. This will take place at the Corn Exchange, Huntingdon, on Wednesday, April 19. Particulars of this show, which is open to all England, may be had from the hon. secretary, Miss L. L. Linton, Stirtloe House, Buckden, Huntingdon.

"Hints on Planting Roses."—From the hon. secretary of the National Rose Society we have just received a copy of the 1910 edition of "Hints on Planting Roses." This little book arrives at an opportune time. It has been compiled by the committee of the society, and from the preface we learn that it is in no way intended for experienced rosarians, but has been written solely for the instruction of that numerous class who wish to grow Roses, but do not know how to set about doing so or what varieties it would be best for them in the first instance to cultivate. Like other publications that are sent out by this society, "Hints on Planting Roses" has been carefully compiled and brought well up to date. Each member will receive a copy, and it may be obtained by non-members for seven stamps of the hon. secretary, Mr. Edward Mawley, Rosebank, Berkhamsted, Herts.

High price for an Apple.—The high price of 14 guineas was paid in Covent Garden Market last week for an Apple. This was a large fruit of Gloria Mundi, which had been grown at The King's Acre Nurseries, Hereford. The weight of the fruit was 27oz., and in circumference it measured 16½ inches. It was sold by auction by Messrs. Garcia, Jacobs and Co., and was bought by Messrs. G. Adams and Co. of New Bond Street. We understand that the proceeds of the sale were given to the Charing Cross Hospital.

Edinburgh public parks.—At a meeting of the Edinburgh Public Parks Committee on October 20 several interesting matters were laid before the meeting by Mr. J. W. M'Hattie, the city gardener. Among these was a report on the work done in the public parks during the year. This showed that much had been taken in hand and carried through for the extension and improvement of the parks and open spaces, and details of the operations and the progress of others not yet completed were submitted. A statement of the attendance, receipts and expenditure in connection with the public bowling-greens was also submitted by Mr. M'Hattie. It showed a total revenue of £789 0s. 9d., compared with £924 11s. 10½d. in the previous year, a footnote to the report stating that two of the greens had been closed after being relaid, that the Prince's Street one had been closed for six weeks, and that the whole of the greens had been closed on account of rain for seven days more than in 1909. Under these circumstances the statement was considered satisfactory. The expenditure was £232 0s. 4d. in excess of the income.

"Kew Bulletin."—A recent issue of the *Kew Bulletin* contains a very interesting account of a visit to the Arnold Arboretum, U.S.A., by Mr. W. J. Bean. The article is illustrated, and it will be read with great interest by those who appreciate the valuable work in introducing new plants from China and other countries due to the enterprise of Professor Sargent, the Director of the Arnold Arboretum. Mr. Bean's wide experience of trees and shrubs in this country enables him to make the following comparisons with the woody vegetation of America: "Perhaps the most noticeable difference between the general aspect of the vegetation of the Arnold Arboretum and that of English gardens is the absence of our common evergreens. Neither the Holly, the Yew, the Ivy, the Aucuba, nor the Box appears to be genuinely hardy, and only a small proportion of our garden varieties of Rhododendron succeed well. The Chilian Berberis Darwinii, the New Zealand Veronicas, the Bay Laurel, Magnolia grandiflora, the Arbutuses, are all too tender to be grown in the open. In the matter of evergreens as a whole English gardens have much the advantage." The following observations on the European Dyer's Greenweed are also of interest: "Very abundant in places—for it has thoroughly naturalised itself—is the European Dyer's Greenweed (Genista tinctoria), making a gay display in early July. Springing up freely every year among this low growth is a crop of seedling Oaks and Hickories so numerous that, in view of the needs of the exotic trees, they have to be mainly treated as weeds. Professor Sargent finds that this low ground cover is not only more beautiful and interesting than meadow, but it is also much more favourable to tree growth. It keeps the earth shaded and cooler than a covering of turf, and does not rob the ground of moisture so much. With the crowds that visit Kew a general treatment of the ground in this way would be impossible, but we have found that for trees rare and difficult to grow a ground cover of Heath is very advantageous, providing shade and shelter for the roots and stem without unduly robbing the soil." The same issue of the *Kew Bulletin* contains two contributions from Sir Joseph Hooker on Impatiens and other features mainly of botanical interest.

A Colonial fruit exhibition.—The exhibitions of fruits from British Colonies held annually by the Royal Horticultural Society have become renowned in London and the provinces, as well as abroad. The event is considered to be one of the most attractive fixtures in the calendar of the society. Preparations are in full swing for the show to be held on December 1 to 3 next, and the kind consent of the Right Hon. Sir Edward Grey, Secretary of State for Foreign Affairs, to open the exhibition has been received. The show is to be on a larger scale than any preceding, and a display of fruits amply sufficient to justify the pride of English people in the Empire's Colonies will be presented.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Suggestion for a spring bed to be planted now.—Plant all over with Forget-me-nots, and between these put in, fairly closely, white Scillas or Bluebells. They make a perfect combination, last long in bloom and are very moderate in cost.—E. T. L.

The culture of Nepeta Mussinii.—A few weeks ago a correspondent in THE GARDEN wrote asking for information about growing Nepeta Mussinii (Catmint). No one, I think, has answered him. I see Mr. Robinson says "it flourishes in ordinary garden soil." This sounds simple, but does not appear to be the experience of your correspondent. In my own garden it flourishes in soil which is by no means ordinary, but very hot sand and stone. I have always seen it growing well in very hot situations in full sun and very poor soil. It seems to be indifferent about the presence or absence of lime.—C. G. O. B., *Churt, near Farnham.*

Stenanthium robustum.—The excellent illustration and the accompanying note by "W. I." in THE GARDEN for October 15 will doubtless draw the notice of many hardy plant-growers to this fine plant, and probably a little interchange of experience regarding its requirements or preferences may be of advantage to those who are thinking of adding it to their collections. It deserves all that is said of it by your contributor, and even a single plant, such as that in the illustration, affords much pleasure to those who see it with its fleecy plumes of bloom. But when seen in a group it is much more ornamental, and a dozen plants together make a little picture not readily forgotten. I have never seen Stenanthium robustum finer than in the garden of Mr. Richard Beamish at Ashbourne, Glenthaune, County Cork, where a fine group near a little streamlet and in perfect surroundings was an object-lesson of how such a plant should be grown. It was in a spot where it received a good deal of moisture without being in absolutely wet soil, and there it had a vigour seldom evident in British gardens. This Mountain Feather Fleece is undoubtedly one of the best of all hardy plants which have been introduced within recent years.—S. ARNOTT.

Winter Roses for market and home use.—Your correspondent "E. J. H.," in his excellent article upon this subject in The Garden for October 8, ignored altogether those delightful little subjects the dwarf-growing Polyantha Roses. Surely they are among our most precious Roses for pot culture, to decorate the conservatory or the room during the dull days of winter and early spring, and they are so easy of culture that any amateur could grow them who possessed a heated greenhouse. One of the prettiest is Jessie, producing quantities of its cheerful, bright crimson blooms upon quite diminutive plants in 4½-inch pots. Other lovely little Roses are Aschenbrodel, Mme. N. Levavasseur, Orleans Rose, Mrs. Cutbush, &c., and there are some pretty novelties coming along that will make this a very important group for the grower of winter Roses. For table decoration they are unequalled, and large quantities are annually produced by our commercial florists. Then there are the beautiful Rambler Roses, which are not exactly winter varieties, but they begin to appear in April and throughout May, and their value is immense. I know of one firm that grows some thousands of these annually, and they can be obtained in all shapes and forms. "E. J. H." also suggested that we wanted an improved Niphetos. Has he tried Molly Sharman Crawford? I have an idea this will be an excellent forcing white Rose. Then there is White Killarney, which may not surpass Niphetos in freedom or even blooming qualities, yet it is a valuable Rose, and is being largely handled by commercial florists; and maybe Mrs. Herbert Stevens will be a good novelty. As a red I would commend Lieutenant Chauré, one of M. Pernet-Ducher's latest novelties. It has wonderful long buds, not too double, and cannot fail to be a great acquisition. Edward Mawley, too, is going to be a winner for this purpose. In strong heat it will come a lovely bright crimson-scarlet. Although I deprecate discarding old varieties before they are found to be superseded, the up-to-date Rose-grower cannot afford to ignore novelties, and he will do well to try a plant or two of the kinds named as an experiment, and then, if proved to be superior, go in for them largely.—P.

Fungus-proof Hollyhocks.—I had the pleasure of seeing the Hollyhocks exhibited by Messrs. Webb and Brand at the Edinburgh Show, and these, like those mentioned by Mr. E. Robinson as seen at Shrewsbury, appeared to be quite free from disease. I took the opportunity of discussing the subject of the disease with the firm's representative, and he assured me that this pest could be mastered by treating the plants in the manner referred to in the catalogue of Messrs. Webb and Brand. The Hollyhocks shown certainly supported this contention, and it was a pleasure indeed to an old lover of the Hollyhock to observe such good spikes, so clean and so healthy, and carrying such fine flowers as those at Edinburgh. But these were very unlike those which are to be seen in the gardens of the bulk of growers of the Hollyhock, now sadly reduced in numbers. A few years ago we were told that the virulence of the disease appeared to be abating, but there is no evidence of this in the gardens of the present time, and it is painful to a lover of this noble old flower to observe the miserable condition into which most of the plants now cultivated have fallen. Messrs. Webb and Brand in their catalogue detail the way to prevent the disease from attacking the Hollyhock, and they may perhaps favour readers by stating what should be done. Without their permission it would be improper for me to quote it. Many, I am sure, would be glad to see this glorious flower once more taking its place in the garden.—S. Arnott.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Plants Under Glass.

CHRYSANTHEMUMS.—Now that most of the flowers are opening, care must be taken that no drip reaches them, or they will soon decay. The blooms can be prevented from rubbing each other by tying a piece of stick across the stems about 12 inches below the blooms. Should the weather be very damp and foggy, a little warmth may be circulated in the pipes to dry up superfluous moisture.

Bulbs.—Early potted Roman Hyacinths, Paper-White Narcissi and Duc Van Thol Tulips should be examined, and if well rooted may be taken out of the ashes and placed in cold frames. Here they may remain till required for forcing.

Cinerarias and Calceolarias.—These should be now moved from the frames to a cool greenhouse, keeping them close to the glass. A sharp look-out must be maintained for the appearance of green fly. Prevention is better than cure, and a very good plan is to fumigate before any fly is seen.

Primulas.—The earliest batch of plants are well in bloom, and a little fire-heat is necessary, maintaining a night temperature of 50° Fahr. Abundance of air must be admitted into the house on bright days, and also a little at night when occasion permits. A slight top-dressing of Thomson's Manure will keep the plants going.

Hardy Fruits.

Apple Trees.—The planting season is at hand, and no time should be lost in getting the trees in the ground. Care must be exercised in the selection of varieties, according to the locality in which they are to be grown. Undoubtedly the bush form of tree is the most useful for all purposes, simply because it can be worked without the use of a ladder. If a plantation is to be made, the ground should be thoroughly broken and worked beforehand; but if only a few are to be planted, holes about 4 feet across and 2 feet deep may be prepared. When the soil has been taken out the necessary depth, the bottom should be broken about 6 inches or 9 inches lower; this assists in the drainage. Place some of the soil back into the hole as it came out, allowing the top soil to be returned to the top when planting. Many failures occur from planting the trees too deep, and as a general guide the top roots should not be more than 4 inches from the surface when the hole is filled and the tree planted. The necessary stake to support the tree should be placed in position before the tree is put in, or the roots will be damaged by driving if left till after planting.

Kitchen Garden.

Peas and Broad Beans.—A warm border should be prepared for the first sowing. The soil may have a liberal dressing of manure, and a small quantity of Apterite should be dug in to clean the soil of all pests.

Salads.—To ensure a good supply now, frames will have to be called into use, and forcing resorted to if Dandelion or Chicory is needed. Little Marvel Lettuce should have frames placed over it, when, with careful management, it will keep in good condition for some time. Endive may be blanched by placing pots over it, covering the holes in the pot with a piece of slate. Mustard and Cress should be sown in boxes and grown in a warm house.

E. C. Pooley.
(Head-gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

Fruit Garden.

Planting.—The season for making new plantations of the various fruits or making up blanks in the quarters already devoted to these has again arrived, and no time must be lost in preparing the ground. Where it is desired to plant new trees on the site occupied by old, worn-out ones, the ground must be generously treated, or there is little chance of success. After taking out the old trees it is necessary to remove a quantity of the old soil, and make up with fresh loam from another quarter of the garden.

Planting Apple Trees.—It is a mistake to plant Apple trees in very rich soil, as they only run to soft, sappy growths that will never produce fruit. Plant firmly, and if the plants are of any size stake each one securely. A little sandy compost shaken among the roots is beneficial, giving the rootlets a nice start.

Planting Plum Trees.—In most parts of Scotland it is hardly worth while planting standard or bush Plums, as the bulk of the varieties that succeed ripen too late to be depended on. Planted against west or east walls they give good returns, and if a south wall can be given up to the finer sorts so much the better. While not over-fastidious as to soil, a good, sound loam suits them best, and this must have a fair amount of lime incorporated with it. A good way of applying lime is to procure some plaster rubbish from an old building, pass through a half-inch sieve, and give a fairly generous dressing to the soil where Plums, Cherries, Peaches and Apricots are to be planted.

Gooseberries.—Any ordinary garden soil will grow good Gooseberries. It should not be too rich, or the bushes will make far too strong growth and give few fruits. While an open, sunny position gives the finest flavoured berries, the Gooseberry is by no means fastidious, and will give fine crops even on a north border.

Black Currants.—This useful fruit delights in a cool, moist position, and the soil should be quite rich. It grows and fruits well on a north border, and in this position the berries are of large size as a rule.

Red and White Currants.—These give entire satisfaction when planted on the north side of a wall and trained as upright cordons. The site for Currants should be trenched 2 feet deep some time previous to planting.

Raspberries.—This is one of the most valuable of all small fruits, and is often very poorly grown. It usually succeeds best on ground of a rather damp nature, but well-enriched ordinary garden soil will give favourable results. The ground, in any case, should be deeply worked and heavily manured before planting takes place.

Rock Garden.

Any alterations contemplated in this department should be seen to as soon as convenient. If plants have to be lifted, they should be heeled in properly in the reserve garden, as it is now too late for permanent planting in our northern districts. All the finer sorts might even be potted with advantage and wintered in a cold frame. New rockeries should also be built now, as there is always abundance of work in spring without having to tackle this. Except the very commonest hardy stuff, none of the planting should be done until spring. Should new plants be procured now, it is best to pot them up and plunge them in ashes in a cold frame, or even out of doors in some sheltered corner where a little protection can be given in hard weather.

C. Blair.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

NURSERY NOTES.

MESSRS. STUART LOW AND CO.

AT the end of June last we had the pleasure of spending a day in the extensive nurseries of Messrs. Stuart Low and Co. at Bush Hill Park, Enfield, a firm that has a world-wide reputation for Carnations, fruit trees, Roses, Orchids and other choice occupants of the garden. These nurseries are unique in several respects; they are easily reached from London, the area devoted to glass is very large, and practically all phases of nursery work receive careful attention, a competent manager being in charge of each department under the personal supervision of Mr. Stuart Low.

With a nursery of so large dimensions and of so comprehensive a character it is, of course, impossible to give particulars of all the interesting plants seen there. Our visit was chiefly for the purpose of inspecting the Carnations and Roses, and the house of Malmaisons that were in full bloom at the time provided a picture that will linger long and pleasantly in our memory. This house measured, roughly, 72 feet by 20 feet, and was entirely filled with the different varieties of the Queen of Carnations. Strong, healthy plants were throwing up their large and fragrant blossoms in luxuriant profusion, and the variation in the colour and size of the flowers was quite a revelation. The accompanying illustration of a small portion of the house and a few of the plants will give at least a faint idea of the scene. The following varieties specially appealed to us, and all may be taken as reliable sorts for general purposes: Ambassador, a good orange scarlet that was most effective; Lois Sturt, a salmon buff flower that was very pretty, its only drawback being its rather small size; Princess Juliana, a wonderful variety, with bright orange flame self flowers—it is really a perpetual-flowering Malmaison, each shoot producing a flower, a feature that should commend it strongly to growers; Mercia, a cherry red flower of exquisite shape; Nautilus, a pretty shade of shell pink, but just a little too small; Amber, primrose and buff, very sturdy habit; The Colonel, a good scarlet Malmaison that seldom splits its calyx, the well-shaped flowers being borne on long, sturdy stems; Ritt Meister, salmon buff, very pretty, not one of the largest, but of very sturdy habit; and Irene, a splendid shaped large flower of rich glowing pink, very slightly spotted with tiny dots of crimson—one of the easiest to grow, and very free-flowering. In addition we noticed a very large stock of the old, but still excellent, variety Princess of Wales.

Among the vast array of perpetual-flowering varieties we noticed the following, which may be regarded as among the best of the newer ones that Messrs. Low have in stock: Royal Purple, a really good purple flower that is exceedingly beautiful when seen at a short distance—the plant has a splendid branching habit, and is very profuse in its flowering; Lady Alington, a charming, glowing salmon pink flower of exquisite form, the calyx being long and sound, and the plant extra well branched—we were told that this is a particularly brilliant and beautiful colour under artificial light; Lady Dainty, a very sweetly perfumed flower, white, lightly flaked purple; Roseate Dawn, large flowers of glowing shell pink colour; and Rival, an exceptionally profuse-flowering plant, the well-formed, full flowers being rich coral red in colour. We noticed splendid batches of young plants of the perpetual section, and by now these must be in grand condition for flowering.

A PORTION OF THE MALMAISON CARNATION HOUSE AT BUSH HILL PARK.

Naturally, at the end of June the Roses were just at their best, and a glorious sight they made. Fragrance and beauty were lavished abroad with no unstinting hand, and new and old varieties alike seemed serenely happy under the good cultural conditions that existed. A variety that the firm thinks a lot of is Mme. Segond Weber, and certainly it is a grand Rose. The colour has been aptly described as shrimp pink, and the long buds are beautifully pointed and veined salmon yellow. It is, we know, very free-flowering, and one of the best for all purposes. In the rush for Lyon Rose this variety has been rather overlooked, but its sterling merits are certain to command attention soon.

Another beautiful Rose that we saw doing well was Duchess of Wellington, somewhat after the style of Marquise de Sinety, but with long, pointed buds that find so much favour for button-holes. Then there was Excelsa, the new wichuraiana variety that created such a sensation at the Temple Show this year. In the opinion of some Rose experts this variety is destined to oust Crimson Rambler from its high pedestal, but we prefer to "wait and see." In any case it is a grand addition to the Japanese hybrids, its bright red flowers being most effective. Mrs. David Jardine is a Rose that should be in every garden. We were particularly pleased with it at Bush Hill Park, every shoot bearing blooms of large size and perfect form, the colour being bright rosy pink, shading in the outer petals to salmon pink. So we might go on enumerating choice varieties did space permit, but we must content ourselves with mentioning that practically every variety that is worth growing is to be found in these nurseries. The large stock of all kinds of fruit trees and bushes, including the famous Lowberry, was in flourishing condition, and the trees should now be just right for successful transplanting.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

RHUBARB PLANTATIONS. — There are large numbers of amateurs and cottagers who are apparently convinced, if one may judge by the state of affairs in their gardens, that when once Rhubarb has been planted it does not demand any further cultural attention. This is a serious error which results in small crops of produce that is inferior in quality. Not only should the site be perfectly prepared as far as working and manuring are concerned, but annually the beds ought to be cleaned of weeds, loosened with a fork and heavily dressed with some natural manure. These are details which should be put in hand immediately a favourable opportunity occurs, and growers may rest assured that the time, labour and money spent will be most generously repaid next season.

VACANT GROUND.—There will necessarily be areas of vacant ground in the vegetable garden at this season of the year, and it is imperative that it shall have any attention that may be required to keep it or bring it into a satisfactory condition. Positions that have carried a crop of fungus-infested plants should be heavily limed or gas-limed, the latter for preference if it is possible to procure the stuff fresh. Quarters which have contained cankered Parsnips, mildewed Onions or diseased Potatoes should be dressed with anything from 1lb. to 2lb. to the square yard, leaving it on the surface for about ten days and then forking it in. Fresh gas-lime applied thus will destroy every spore with which it comes in contact, and at the same time it will substantially improve the mechanical condition of heavy soil. Ordinary lime is also peculiarly advantageous in the same directions; a thorough whitening of the entire surface, with pricking over at the end of a week, will do immense good. In autumn digging and manuring the previous and succeeding crops must have close consideration, and in all instances the surface spit should be left very rough, so that the full benefit of weathering shall be secured. The free admission of water and fresh air, followed by the disintegrating influences of frost, improves physical conditions as well as increases fertility.

ASPARAGUS BEDS.—The "grass" will soon be all brown, and the earlier after that stage is reached it can all be cut away, the better for the plants and the crop in the following year. Immediately it is possible to do so, all weeds should be pulled out and the bed finished off for the winter. It is common with many people to use a considerable amount of salt on the surface, both in the autumn and the spring; but the wisdom of the system is often open to serious doubt, especially in autumn applications. Salt makes the ground closer and wetter, and therefore colder, and with soils that are on the strong side this is by no means desirable

for a warmth-loving plant such as this. Remove the weeds by hand, and then spread on a generous dressing of manure, or a mixture of manure and leaves, or, as a third resource, leaves alone, and it is certain that nothing but good can accrue. The weeds pulled out can beneficially be dug into the soil in the alleys between the beds.

Seed Potatoes.—It is the common practice in many gardens to purchase Scottish seed Potatoes in one year and save seed at home for the next season, and there can be no doubt that with the majority of varieties the system is a thoroughly good one. In many instances new seed from Scotland or Ireland throws rather more vigorous plants than one desires in the garden, and coarse tubers are more numerous than one wishes; but some of this excessive vigour will have toned down in our soil and climate, and the following season the probabilities are that the crop will be as nearly perfect as we can expect it to be. It is, however, necessary that the seed tubers shall be most carefully selected and that they shall be chosen early. To many people the method of securing the seed sets at lifting-time does not commend itself owing to different circumstances, but it is a task that may be done when the weather is unfavourable for outdoor operations. Always take tubers which are perfect in shape, according to the variety, shallow in the eye, showing no signs of scab or disease, and store them in some convenient position where they can have the full benefit of light and air without any risk of injury from frost. H. J.

ROSE GARDEN.

ROSE HEDGES.

(*Continued from page* 515.)

HAVING dealt with the Rose hedge from the point of view of a screen of continuous-flowering plants from 5 feet to 8 feet high, there remains the dwarfer hedge or dividing-line, which is sometimes wanted, to be considered—say, from 3 feet to 4 feet high—still keeping in view the continuity of flower as essential, but waiving a point as to extreme hardiness; in other words, presuming a favourable site that is not likely to be exposed to extreme temperatures. I have used with great success the China Roses to form a low hedge, say, 3 feet high. The three best varieties for this purpose in order of merit are Mme. Eugene Resal, Laurette Messimy and the common China or Monthly Rose. An excellent hedge was formed of the first two by planting the Roses alternately 18 inches apart each way in two rows. An additional row, making three altogether, was afterwards added to give it more solidity, if one may use the expression. The Chinas require no support and very little pruning—simply cutting out the dead wood whenever it appears is sufficient; they appreciate a light soil with plenty of leaf-mould and sand, and I do not recommend heavy manuring. A mulch of that excellent Rose manure known as Wakeley's Hop Manure in the early part of the season keeps them going so far as flower is concerned for the whole season through. They are excellent for table decoration if cut in the three stages of bud, half-open flower and fully expanded, are just light enough for the purpose, and both varieties named are excellent under artificial light, Mme. Eugene Resal being splendid.

Another family of the Rose world may also be utilised for this purpose of a dwarf hedge. A small Rose garden I know is completely surrounded in this way by the stronger-growing of the Dwarf Polyanthas or Pompons. I say "stronger-growing" advisedly, as some of the best of the Pompons are not tall enough for the purpose of a hedge, such varieties as Kleiner Alfred, those of similar habit rarely growing more than 18 inches high. These are best suited to edge other beds with, but varieties like Eugene Lamesch (I think the best of all), Leonie Lamesch, Perle d'Or, Cecile Brunner, Phillipine Lambert, Aennchen Müller and Petite Constant could all be employed satisfactorily. For Pompons they are strong growers, especially the first three named. They have all the characteristics of the family, always in flower, perfect Roses in miniature, and if left alone, unpruned (except the cutting out of the flowering raceme or head), grow into sturdy, thick bushes 3 feet or more high. Planted close, say, 18 inches apart, a compact hedge is soon formed, two or three rows being ample to produce the effect aimed at. They retain their foliage well into the winter, and I have found them quite hardy; they came through the zero frost of last season in my garden without the loss of a plant. Of course, there was rather more dead wood than usual, but that was the extent of the damage done.

There are, of course, a few of the more compact-growing Hybrid Teas that would make hedges—Viscountess Folkestone, for instance, Caroline Testout and, with me, Mme. Ravary could all be used. Frau Karl Druschki also makes a somewhat taller hedge, but mildews rather badly which is against it.

I have seen Grüss an Teplitz recommended, but it does not retain its foliage down to the base, and the plant is apt to look leggy in consequence. Then one frequently sees the Penzance Briars recommended for a hedge, but they are best grown in bush form; they are too scraggy for an ideal hedge, drop their foliage very early, and only flower once, although I would not condemn a Rose on that score alone.

ASTER D. B. CRANE, A PALE BLUE-FLOWERED VARIETY, GROWING IN MERCURY GARDENS, ROMFORD.

The most beautiful hedge in my garden, and the one that has always given me the greatest pleasure, is not the wichuraiana hedge, nor the Zephyrine Drouhin, nor the rugosa, nor the China and not the Dwarf Polyantha, beautiful and desirable though they all are, but a hedge that is composed of a Rose that practically only flowers once, though one can always gather a flower or two in the autumn. But "what a once!" The picture lasts though the Roses fall. I look forward, or have looked forward for many springs now, to the flowering of my hedge of Rosa altaica. It generally is at its best towards the middle and end of May, when its shoots are wreathed in blooms, each beautiful beyond compare, the contrast with the delicate foliage perfect, and the whole a picture that, once seen, is never forgotten. It lasts as a remembrance of the most beautiful picture that the garden can give. Dorothy Perkins, Crimson Rambler, Bessie Brown and Mildred Grant (the finest show Rose that was ever staged)—you may have them all. They do not appeal to me like the hedge of Rosa altaica in "its highest phase of possible beauty." *Its* highest phase has not, to my way of thinking, yet been beaten in the Rose world.

I was pleased to see a note by Mr. S. Arnott in The Garden for October 8 commending this Rose. It may be fine on a wall, but it seems cruel to put it there and to nail up its slender shoots. Give it its freedom, and let it grow as it listeth; it will not encroach too much, and it will amply repay you. Its foliage at this time of the year takes on a beautiful brown tint that contrasts admirably with autumn flowers. Altogether it is a most desirable Rose. *Bien aime.* It shall be my last word on Rose hedges. Rosa altaica! Herbert E. Molyneux.

NEW ROSES OF THE YEAR.

(*Continued from page* 525.)

Mayflower (Tea-scented, E. G. Hill and Co.).—An improved Devoniensis, a vigorous grower, and is apparently a real good thing, the result of many

years' effort for an improved Devoniensis, so that all who can remember this old Rose in its prime will want the newcomer, especially as the petals are edged with lavender pink.

Margaret (H.T., William Paul and Son, 1909).—A fine deep flower of soft pink colouring. One of the best exhibition Roses of recent years, and is also a splendid garden variety.

Margaret Molyneux (H.T., A. Dickson and Sons, 1909).—A lovely semi-double Rose, with saffron yellow buds, shaded peach, and opening to canary yellow.

Mary Countess of Ilchester (H.T., A. Dickson and Sons).—I admired this Rose at Holland House this season ever so much more than I did last year, which is a proof, if any were needed, that we must not be too hasty in our judgment of a Rose when first put up, and it is also another reason why the judges of new Roses should see them growing, if possible, or a good, unbiassed judge be sent round to report. The colour is clear carmine pink, a beautiful shade, and the blooms are of grand form, produced with a profusion truly remarkable.

Mama Looymans (H.T., Leenders, 1909).—Bright reddish salmon, of medium size, semi-double, habit dwarf, and marvellously free and continuous in bloom. A seedling of Grüss an Teplitz.

Marie Delesalle (H.T., Soupert et Notting, 1909). Bright cherry red, large and fairly full. A very free bloomer. From Etoile de France, crossed with Richmond.

Marchioness of Waterford (H.T., Hugh Dickson, 1910).—Colour brilliant salmon pink on outside of petals, inside silvery blush. The flowers are generally produced singly on stout, erect stems, and the form is very perfect. Will be a good all-round Rose.

Marquise de Gany (H.T., Guillot, 1909).—A cross between Liberty and La France. Its blooms are of silvery rose colour, of sweet fragrance, and as free as La France, but the growth is erect, like Liberty.

Miss Alice de Rothschild (T., A. Dickson and Sons, 1910).—A Rose with a future. The raisers say up to the present this is their best production. What a commendation to give a Rose when we remember the superb novelties from Newtownards! It is the bedding Maréchal Niel, surely. The colour is deep citron yellow, which becomes deeper as the bloom expands. The flowers are very large, full and of perfect form, with high-pointed centre. For pot culture it is superb, and for garden or for exhibition truly splendid.

Miss Cynthia Forde (H.T., Hugh Dickson, 1909). Another pink Rose, but a beauty nevertheless, and one that is sure to make its way. The raisers predict it will be one of the most popular of bedding Roses. This is difficult to say, for novelties come nowadays in shoals, but certainly it promises well, and is distinct although a pink.

Miss G. Mesman (Polyantha, Mesman, 1910).—A climbing sport of Mme. Norbert Levavasseur, making growths 10 feet in height in a season and flowering like the original from June till October. Although one cannot admire the colour, it is most useful by reason of its perpetual-flowering habit, and will be welcomed by those who are in search of such Roses for pillars and pergolas, blending well with Trier, Alister Stella Gray, Aimée Vibert and Grüss an Teplitz.

Miss Muriel Jamison (T., Hugh Dickson, 1910). An exquisite single Rose of a deep orange cadmium colour. Will be a formidable rival to Irish Elegance, the open flowers being even more beautiful.

Molly Sharman Crawford (H.T., A. Dickson and Sons, 1908).—A superb Rose of such a pure eau de Nil white as to be perfectly dazzling. The flowers are large and full, and are borne erect upon good stiff growths, which render them far more useful in the garden than such old sorts as Niphetos or Innocente Pirola. One is not surprised this Rose received high honours at the Bagatelle trials this year.

Mlle. de la Valette (China, Schwartz, 1909).—The buds of this pretty novelty are red, opening to red, shaded yellow gold, reverse of petals ruby red. Very refined and sweet. A cross between Mme. E. Resal and Aurore.

Mlle. M. Mascurand (H.T., Bernaix, 1909).—This fine Rose was one of those honoured this year at the Bagatelle trials. The buds are long, produced on rigid stalks, flowers very large and full, cup form, colour white, lined and shaded salmon yellow.

Mme. Albert Marone (H.T., Ketten, 1909).—This is an excellent sort having long buds, colour light orange yellow, shaded with saffron at edges, outside sometimes suffused pink. A cross between Kaiserin Augusta Victoria and Lady Roberts.

Mme. A. Tupinier (H.T., Perdriolle, 1909).—A cross between Antoine Rivoire and Joseph Hill. Flowers large and double, colour rosy salmon, shaded yellow, outside tender rose, shaded copper. A very free and perpetual bloomer.

Mme. Andre Porcher (H.T., Guillot, 1909).—Brilliant deep carmine, very large, full and globular, of vigorous growth. Seedling from Mrs. W. J. Grant.

Mme. C. David (H.P., Boutigny, 1909).—We expect a good Rose from the raiser of Commandant Felix Faure and Louis Ricard, and I imagine we have one in this variety. It is of the growth of Ulrich Brunner, with rich velvety crimson flowers, illumined with vermilion. I am glad to find there are one or two raisers who do not ignore the Hybrid Perpetuals, and in this variety and the novelty of Mr. Charles Turner's (Mrs. G. Henslow) we have evidently two good things, which goes to show the Hybrid Perpetuals are not played out. P.

(To be continued.)

ASTER PERFECTION, A NEW VARIETY, IN THE GARDENS AT ALDENHAM HOUSE.

THE FLOWER GARDEN.

MICHAELMAS DAISIES AND THEIR CULTURE.

THE perennial Asters, or Starworts as these are generally called, must rank among the most popular and accommodating plants of the present time. Generally speaking, these are at their best when the majority of the summer and autumn flowering plants are finished. The present season is almost an exception, for at the time of writing (October 16) the most tender of the summer bedding plants are giving us a wealth of blossom, and are certainly better than they have been at any time during the past summer. Fortunately, Michaelmas Daisies may be grown on almost any soil and under any conditions, even in the smallest garden of a thickly populated town or in a cottage garden in any locality, and well repay the attention which one might bestow on them to bring out their best qualities.

A few years ago this plant was looked upon as little less than a weed, but during the last quarter of a century, and especially during the past few years, enormous strides have been made in improving not only the colours, but the elegance of growth; and I am convinced that, good as they are at the present moment, there is room for much greater accomplishments than have yet been achieved. Patience and care are alone required to ensure this. For many years it was assumed that it was quite impossible to hybridise and cross-fertilise the various species; but, fortunately, the difficulty has been overcome and some very fine results have been obtained. Where a well-prepared border of a considerable width and length is judiciously arranged and properly cultivated, nothing that I am acquainted with gives more pleasure, and the visitors who call in increasing numbers each year to inspect the Aldenham collection alone testifies to this. The pleasure and interest in watching the development of a batch of seedlings, the flowers opening at various intervals from the beginning of September to the end of October, more than repays any trouble incurred.

With the wealth of varieties now in commerce one need only cultivate the very best, and in making a selection one should endeavour to procure those only which have been acknowledged to be an improvement on the older varieties. Not only are these of much value for brightening our gardens during the closing days of summer and autumn, but they are alike equally invaluable for the embellishment of the rooms as well as making

ASTER MESA GRANDIFLORA, A DWARF VARIETY WITH LARGE PURPLE FLOWERS.

delightful table decorations when associated and arranged with suitable autumnal or coloured foliage. Unquestionably the best way to see them is to devote a border entirely to the plants, and the greater the width within reason that can be allowed the more pleasing and effective will be the display. The position and aspect is almost immaterial, but whenever possible it should be sheltered from the west and south-west winds. The position we have assigned for them here is almost due east, and we have cultivated them on the same spot for the past twenty years, taking the plants up, dividing and rearranging them each spring. Early in March the ground should be thoroughly trenched, heavily manured, and a good surface-dressing of chalk lime applied. The ground should be made thoroughly firm and a plan made of the colours and the heights before planting. Quite small pieces ought to be selected for planting, allowing a distance of 4½ feet between the plants and 4 feet between the rows. Frequently slugs are very troublesome, and will, unless preventive measures are taken, do a considerable amount of damage to the young growths. To check these pests finely sifted cinder ashes should be liberally placed round each plant. Each should be correctly labelled and the surface raked down finely.

Staking is another important item to be considered in their culture, and much depends upon this as to the display at flowering-time. The system so often seen of placing a single stick to each plant and then looping up the growths together, making the whole plant represent a besom, is not to be commended. As soon after planting as possible, when the growths begin to lengthen, we place four or five stout sticks to each plant, inserting them as near to the crown as possible without unduly injuring the roots and slant them outwards. If the growths are too numerous, thin these out, but leave one or two to each stick. At varying intervals as growth proceeds loop up with a piece of raffia. Under these conditions each shoot is able to grow away unchecked, and instead of a mass of bloom bunched together at the top, as with the first-mentioned method, the subshoots are allowed to develop, and the result is a perfectly flowered specimen from top to bottom.

Stopping the growth is sometimes practised with the idea of forming denser and more bushy plants. This, if done, should be carried out fairly early, and then only the strongest growths ought to be so treated. During the growing season the ground should be frequently aerated with the Dutch hoe. This not only exterminates weeds, but does much to stimulate growth and conserve the moisture in the ground. This is of great importance, especially during a dry season, the loose soil acting as a mulch. Frequent applications of water in dry weather will be found beneficial, and in showery weather a dressing of artificial manure sprinkled round the base of the plant will stimulate the growth, as will syringings with clean water in the early morning or evening when the weather is very hot.

Mildew is one of the worst pests these plants are subject to, and means must be taken to cope with this should its presence be detected, or the appearance of the plants will soon be spoilt. Syringings with a good fungicide, recommended and used as advised, is the best method of treating it. The foregoing remarks apply to those of the larger-growing sections, whether in a border devoted to their culture, or in the mixed herbaceous border, shrubbery or elsewhere.

The Amellus section is composed of a delightful race of free-flowering dwarf plants, producing an abundance of showy blooms varying in colour from palest rose pink to deepest purple. During recent years the strains of these have been considerably improved, both in colour and also the size of flower. These are invaluable for cutting, and make a pleasing mass of colour when given a position to themselves. They are also extremely useful for the front of the herbaceous border.

Species and varieties, especially the latter, are now numerous, and of the former a few worthy of cultivation in all gardens are: Aster acris, an early flowering plant producing a quantity of deep blue flowers. There is a dwarf form known as A. acris nanus. A. Thomsonii is also an early flowering species from the Himalayas, flowering even earlier than the last-named; it is a beautiful plant and worthy of extended culture. A. turbinellus and its white form are worth a place in every collection, as is also the late-flowering A. Tradescantii. A. diffusus horizontalis, A. Fendlerii, A. grandiflorus, A. ptarmicoides and A. salicifolia Tresserve are others of much use and interest.

Of the bold-flowering varieties of the Novi-Belgi and Novæ-Angliæ sections there are many, and these are especially useful for planting as a background to others of the cordifolius and ericoides section, as well as being invaluable for cut-flower purposes. Climax, a splendid variety of recent introduction raised in these gardens secured an award of merit from the Royal Horticultural Society, and few Asters have become more popular. From this variety we have many prominent seedlings. Lustre, another new variety which similarly secured an award of merit, is a splendid semi-double with rose pink coloured flowers. Others of this section which might be included are Jessie Crum, Top Sawyer, Perry's Pink, W. Marshall and Theodora. Of the Novæ-Angliæ section Mrs. F. W. Raynor is a splendid variety, and for colour difficult to surpass; it ought to be included in every collection. Wm. Bowman, rubra and Ryecroft Pink are other desirable varieties of this section. The cordifolius section embrace a host of named varieties, and, generally speaking, are great favourites—Edwin Beckitt, dark blue, a seedling from cordifolius elegans; Diana and White Diana, each beautiful; Ideal, blue; cordifolius and profusus; Paragon, of newer introduction; and Sweet Lavender. In the ericoides section we have such as the Hon. Edith Gibbs, a seedling almost too well known to need description, flowers pale blue, graceful habit, height 5 feet; Bianca, an award of merit variety with pure white flowers and similar in habit to the preceding; Ophir, pink, with a distinct golden disc; Enchantress, Sensation, Thora, Finchley White; Perfection, illustrated on page 538, flowers pure white, of perfect growth and habit, the blossoms being freely produced to the ground-level—it received an award of merit from the Royal Horticultural Society on October 11 this year; Delight, Ring Dove, Simplicity, Maidenhood, Gaiety, Chastity, Star Shower, Coquette, Symphony (early flowering) and Daydream. The foregoing list is of a few taken at random, and is by no means exhaustive.

E. Beckett.

Aldenham House Gardens, Elstree.

ASTER DELIGHT IN ALDENHAM HOUSE GARDENS.

GARDENING FOR BEGINNERS.

HOW TO PLANT BUSH AND CLIMBING ROSES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Evergreen shrubs must be carefully examined at this season, and if any appear to be ragged or straggling in growth, then pruning should be done forthwith. Even the smallest evergreen shrubs can be trimmed and kept within bounds, as it were, without any resort to the close, formal clipping that one often sees. If all the ends of the shoots are cut off evenly with a pair of shears, many large leaves will also be severed, and specimens so treated always look unsightly. Instead of using shears, do the pruning with the aid of a strong, sharp knife, and cut away any branches that protrude beyond the majority. If one side of a shrub is much thinner and weaker than the other, severe pruning on the weak side will result in its soon becoming stronger in every way. Evergreen hedges must be trimmed in a similar way. No further pruning will be necessary until next summer. There are few kinds of plants that make more roots than the double and single flowered Pyrethrums, and the plants quickly exhaust the nourishment in the soil. This being so, it will be advisable to lift and divide all large specimens, and then replant them in new ground which has been trenched and well manured.

1.—BUSH ROSE BEFORE PLANTING. THE LINE INDICATES THE POINT WHERE BUDDING TOOK PLACE.

Vegetable Garden.—Manuring and digging vacant plots of ground must now be undertaken when time can be spared for the work. How often one sees heaps of good manure tipped in gardens and there allowed to remain for many days, running into weeks in some instances! Rains come and wash away the best of the manure. Keep all stable manure under cover, and if it is necessary to cart any to the vegetable garden some time before it can be dug in, see that the heaps are duly covered in the meantime. Now, the manuring of very light, sandy soils should not be carried out before the early part of spring, for the following reason: Being so porous, the rains would, during the winter months, wash down all the goodness the manure contained through the soil; the plants put in next year would then receive no assistance from the manure. Being retentive, stiff soils may be manured in the autumn, as clayey soils do retain the manurial properties.

Fruit Garden.—Medlars and Quinces still on the trees must be gathered without any further delay, as they will soon begin to rot if left longer; they fall to the ground and get badly bruised where there is not a nice carpet of leaves. The Medlars should be stored in a cool and well-ventilated store-room; if the atmosphere remains close and moist the fruits will decay. If placed—as they should be—in single layers on a very shallow bed of wood-wool on open-work shelves in the store, they will remain quite fresh. The work of removing suckers from fruit trees should now be taken in hand seriously. Do the work thoroughly—that is, remove every piece of sucker growth right down to the roots, and not merely cut them off at the soil level.

Greenhouse and Frames.—The back walls of some greenhouses are tastefully covered with Ferns, Begonias and other suitable plants. The light, peaty soil in which the plants are usually grown must not be kept as moist from this date onward through the winter, because the growth of the plants is not very active. All faded leaves and moss must also be carefully removed, and the wall plants made clean and their surroundings sweet for the winter. Cut out all weak, unripe shoots growing in Rose trees trained on walls, pillars or trellises, as such weaklings will not bear blooms, and they obstruct light, air and sunshine from the better ones during the winter-time. The heated frame will be found very useful at the present time. Winter-flowering Begonias and forward Primulas should be kept in such frames, as excessive moisture is readily removed.

A. A.

PLANTING BUSH AND CLIMBING ROSES.

THOSE who propose planting Roses this autumn should lose no time in getting the quarters ready for them, so that they may be planted before hard, frosty weather is experienced. From the closing days of October until the end of November may be considered the best period in which to plant Roses; but where it is desired to leave the planting until the early days of spring, February and March m be selected for this purpose. Much has been s about the best soil for Roses, and the opini generally prevails among the inexperienced th clay is best. There is no doubt whatever th fairly heavy loam, or what some growers descri as a clayey loam, is distinctly the best for m Roses. A clayey subsoil no doubt suits the R very well, but this should be well broken Drainage, too, is a matter of considerable impo ance. Where the situation is low-lying, it may necessary to drain this part of the garden. Th may be gardens where the water is disposed collect owing to clayey subsoil. In these ca broken bricks should be placed in the bottom of t trench for drainage purposes. Light soils may improved by the liberal addition of cow-manure, by a quantity of good loam that may be acquired a fairly reasonable rate from most local contracto As most of the Rambler Roses are vigorous-rooti plants, and in consequence make enormous grow in the course of a season or two, special provisi should be made for them. The roots of the ra blers need an abundant supply of plant food draw upon. For this reason specially prepare t soil for them, and allow about 3 feet root-run each specimen.

2.—THE SAME BUSH AFTER PLANTING.

A beginner in Rose culture will probab derive greater pleasure from the Hybrid Tea Ros than from those of any other section. Most these Roses are plants of easy culture. As a ru established plants come into flower in June, a they flower more or less continuously until the fr

3.—RAMBLER ROSE ON ITS OWN ROOTS.

nars their display and their leaves fall. A good, ›pen position suits these Roses admirably, and those eaders whose gardens are of a circumscribed area hould endeavour to plant where the Roses are ble to obtain the great advantage of sunshine as ong as possible each day.

Mistakes in planting are common enough to eginners. Sometimes they plant too deep and n others not deep enough. Frequently, too, a ufficient distance is not allowed between the lants. Bush Roses should be planted from 8 inches to 2 feet apart, and a far better effect is btained in the garden when a few bush Roses of sort are planted together. Climbing Roses hould be planted 4 feet to 6 feet apart. Where pace permits, I would allow fully 10 feet etween the more vigorous and fast-growing kinds; is astonishing what an amount of space these oses will ramble over in the course of a season. hey should be planted to cover arches, pergolas, illars, stumps of old trees, arbours, fences and alls, and they make very beautiful hedges besides overing up unsightly corners of the garden.

Fig. 1 shows an ordinary young bush Rose such s the beginner may acquire at this season. When lanting a Rose of this description the jagged ends f the wounded roots should be trimmed off with sharp knife, cutting them from underneath, and hole should be dug out sufficiently wide for the ots to be spread out in proper order. As a rule, hole 18 inches square answers admirably. The oung bush Rose should be planted sufficiently deep for the junction of stock and scion to be buried about 1 inch below the surface. That the beginner may understand at what depth to plant these bush Roses, a line is shown in the illustration. In the process of planting, the roots, after being spread out as suggested, should be covered with fine soil free from manure. With one hand hold the plant, and with the other fill in the prepared soil, gently shaking the plant to settle the compost round about the roots. Tread in firmly, and finish off as represented in Fig. 2.

In Fig. 3 is seen a young specimen of Blush Rambler that has developed into an excellent plant from a rooted cutting of the previous year. Ramblers on their own roots, when once they begin to make growth, go ahead at a marvellous rate. Roses of this description should be cut back one-third of their length previous to planting, and they should have the support of a stout stake. Roses on their own roots are usually planted about 6 inches deep. Each plant should appear similar to that seen in Fig 4. In order to get the illustrations prepared in time, the plants shown were lifted before the leaves had fallen. Generally speaking it is not wise to do this.

A small selection of Hybrid Tea Roses for a beginner might well include Mme. Abel Chatenay, Caroline Testout, Mrs. W. J. Grant, Prince de Bulgarie, Antoine Rivoire, Joseph Hill, La France, Liberty, Mme. Ravary, Kaiserin Augusta Victoria, Lady Ashtown and Dean Hole. Good climbers should include Dorothy Perkins, Hiawatha, Crimson Rambler, Blush Rambler, Climbing Caroline Testout and Alister Stella Gray. D. B. C.

WINTER TREATMENT OF LOBELIA CARDINALIS.

The brilliant display made by the flowers of this plant is seen during the latter part of summer. It forms a very effective object as a dot plant over smaller-growing subjects, and also in ribbon borders and as clumps in herbaceous borders. Inexperienced gardeners may think that it is necessary to store the plants in warm houses in the same way that the ordinary blue Lobelia is stored during the winter months. Such is not the case. They are nearly hardy; in fact, they may be kept safely enough in the Southern Counties if packed close together on a dry, sheltered border, with some light, sandy compost placed between and around the clumps. In times of severe frost mats should be laid on them. In colder counties the clumps should be lifted and kept in a cool frame, where additional protection can be afforded if there is occasion for it. B.

THE TOWN GARDEN.

Town Gardens are obviously what their owners elect to make of them. They may be models of neatness and order, an attraction and an object-lesson of some worth to the passer-by, or they may descend to the other extreme of neglect and become an eyesore to all. Happily, in my experience the town gardens that are wholly neglected are few indeed; rather do I find not only the gardens, but window-boxes, well filled with plants of a varying character, that go a long way to prove what the tastes and the desires of their owners really are. That there is much enthusiasm displayed in the laying out of these little plots I have not the smallest doubt. Now and again, however, the amateur's enthusiasm carries him beyond the limits of necessity or even good taste. As the present time is one for change and re-adjustment, some of the more frequent errors into which beginners fall may be pointed out.

What to Avoid.—Not a few front gardens in suburban districts are made up of a plot of grass and a flower-bed; but does it not savour of wasteful and ridiculous excess when, instead of the flower-bed joining the lawn, as it were, it is parted from it by an edging of Box, boards, tiles or even shells? Moreover, such things as these, while being in the truest possible sense incongruous, are an impediment to good work. A flower-bed, indeed, should, in such circumstances, spring out of the grass plot, as it were, unhindered and unencumbered. Hence I suggest to any who may have erred in this direction to remove the obstacles referred to, and to endeavour to cultivate the natural rather than the artificial idea, even within the limits of a front garden plot.

Why the Obstacle Existed.—The impediments to which I have referred only came into being "because the soil used to wash down on to the grass," and, of course, the obvious reason of

4.—RAMBLER ROSE AFTER PLANTING.

it all was that the soil, usually of a fine character, had been piled up far too high at the centre of the bed. In cases coming under my personal observation, I unhesitatingly advise the lowering of the soil of the bed, pointing out the advantages of a flower-bed whose surface is flat or approximating thereto. Watering in such a case is then much more easily and effectively done, the moisture remaining about the roots of the plants, to their great benefit.

Privet.—I could wish that this meaningless shrub and soil-robber was far less frequent in small

gardens than is the case at the present time, and I certainly know of no shrub of a more voracious character, or one that will send its root-fibres to such distances in so short a time. Where the occupier of a garden has not the right to remove it altogether, I may at least suggest that it be reduced as much as possible, and that its rooting area be also greatly restricted.

BEDDING PLANTS.—Cuttings of bedding Calceolarias may still be inserted in boxes of sandy soil, or in a similar mixture, of about 3 inches deep, placed in a cold frame. So nearly hardy are these that they greatly prefer cold-frame treatment to those drier, warmer conditions of the greenhouse, where, in addition to weak growth, the plants soon become infested with insect-life. Plants of Echeveria should now be in their winter quarters, and they ask for nothing more than dryness and comparative freedom from frost. Some gardeners, indeed, just arrange the plants vertically in a sheltered, sunny position in the open, preferably against a greenhouse wall, keeping them in position by strips of wood at the sides, and throwing off the wet from above in a similar way. They are safer thus than in a heap or in boxes beneath the greenhouse stage, where drip and the exclusion of light play havoc with them before the winter is half gone. E. H. JENKINS.

CHRYSANTHEMUMS.

SEASONABLE NOTES.

NOTWITHSTANDING the abnormal weather of the past summer, the early flowering Chrysanthemums have done exceedingly well. True, there has been some irregularity in their order of flowering that has puzzled many growers, who, possibly, have not been very observant. Quite a number of good and proved sorts were flowering freely in August. Much to the surprise of many people, the Mme. Marie Massé type of early flowering border Chrysanthemums have this year proved their undoubted value in the garden when other sorts have not been so dependable. Growers should remember that with the advent of Mme. Marie Massé in the early nineties the whole aspect of the early flowering Chrysanthemums changed. Within a few years this much-valued border variety gave us a large number of sports, representing quite an interesting series of colours, and the plants in each instance were ideal for displays in the outdoor garden or or providing an abundant display of cut flowers or indoor decorations. These same varieties were used for making crosses with older and, in numerous instances, less interesting and later-flowering kinds, and the progeny of these crosses are largely responsible for the better varieties to be seen in our gardens to-day. It is not in the least difficult to trace the parentage of many of the popular kinds of to-day to the variety to which reference has been made, and which, by the way, is of French origin, as the name suggests. It has been a Mme. Marie Massé year, as those who have grown so many of the original and its sports know only too well.

Exhibitions have been held in different parts of the country, and almost without exception the results have been very satisfactory. Competition at the Crystal Palace was good in some classes and poor in others, but the exhibition as a whole was a most attractive one. In the Midlands and the North capital exhibitions have taken place, and proof is not wanting that the cultivation of the outdoor Chrysanthemums is increasing in no mean degree.

From careful observation it may be safely stated that by far the best results are obtained in gardens where deep culture has been practised, and where the soil has not been unduly enriched with heavy dressings of animal manures. In most cases where manure has been freely incorporated in the soil, the growth of the plants has been of a too vigorous character, and this has sometimes promoted growth to such a degree as to represent the plants quite out of character, and the flowering has also been less satisfactory.

NEW CHRYSANTHEMUMS.

THE following novelties were recently granted awards by the floral committee of the National Chrysanthemum Society :

Maude Williamson.—A large Japanese exhibition variety, having very long, drooping florets that build a most desirable flower of high quality. Colour, deep rose, with silvery reverse to the florets. First-class certificate awarded to Messrs. James Stredwick and Son, Silverhill Park, St. Leonards-on-Sea.

Mikado (1910).—A large and attractive Japanese variety, having fairly long, broad florets of substance that make an excellent bloom for exhibition. Colour, rosy crimson, with nankeen reverse. First-class certificate to Mr. Martin Silsbury, Shanklin, Isle of Wight.

Japan.—In this instance the bloom is one of undoubted promise, having long, very broad florets of good substance that curl and incurve in a pleasing way and build an exhibition bloom of splendid quality. Colour, deep crimson, with slight suffusion of crimson on the inside of the florets. First-class certificate also to Mr. Silsbury.

Miss F. Collier.—Pure white market Chrysanthemums are usually welcome. In this case the bloom is of even, Japanese reflexed form, and is very chaste in appearance. First-class certificate as a market or decorative variety to Mr. W. Roots, Holly Cottage, Cranford, Middlesex.

Debutante.—This is another excellent pure white market variety, and as such is a capital representative of the type. It has a Japanese incurved bloom of good substance, and the florets are fairly broad. First-class certificate as a market variety to Messrs. Lowe and Shawyer, Uxbridge, Middlesex.

Miss Dorothy Ashley.—As a representative of the free-flowering border varieties this should become popular. It is charming when grown in free-blooming sprays, and the colour is deep mauve pink, with golden-tinted centre. First-class certificate also to Messrs. Lowe and Shawyer.

Cranfordia.—This is a very attractive canary yellow Japanese flower of good quality, having florets of medium width and good length, slightly curling and incurving at the ends. This variety is specially adapted for market culture, and each plant should yield a fair number of beautiful blooms when disbudding is practised. First-class certificate to Mr. W. Roots.

Betty Spark.—Because of its particularly pleasing tone of silvery pink colour, and also because the plant does well in either disbudded or undisbudded form, this variety is sure to become popular. First-class certificate to Mr. Roots.

Miss Elsie Heady.—Another market variety of most attractive appearance. The blooms are of medium size, having fairly long florets that build a specimen of pleasing form. Colour, a distinct tone of rich pink. Commended. From Messrs. Lowe and Shawyer.

A few good novelties, some of which the committee wished to see again, were the following : Elegans, a large Japanese of drooping form, colour deep yellow, tinted bronze ; Hollicot Primrose, a pretty golden yellow market variety, having broad, pointed florets ; Captain Mitford, a huge exhibition Japanese variety, having florets of extraordinary length, bright rose, with silvery reverse ; and Thomas Figg, a pale terra-cotta Japan bloom, with buff reverse and twisting and curl florets, suitable for exhibition. D. B. C.

NOTES ON TULIPS.

(*Continued from page 527.*)

MAY-FLOWERING OR COTTA TULIPS.—The following have l stems and graceful flowers, and suitable for cutting : Retrofle pale yellow, is, as yet, unbeat Its slender stems and its beauti reflexed flowers always stand it in good ste Among those which generally press it the hard are Didieri alba, small-pointed and pure wh flowers ; Mrs. W. O. Wolseley, rich crimso Inglescombe Scarlet, bright scarlet with bla base ; elegans, cerise crimson, with yellow centr Picotee, white, with rose edge ; Marjolletti, p primrose, with crimson blotches at base of ou petals ; La Merveille, an indescribable blend salmon and coral red ; Doris, rosy lilac ; a The President, silvery pink.

May-flowering or Cottage in red shades for t garden.—It is difficult to make a selection and single out any particular one, or even two, " top dogs." Probably Scarlet Emperor, mag ficent large scarlet, has occupied the place honour as often as any other, and there are nc so likely to catch the judge's eye ; but La Merveil gesneriana spatulata, large crimson red, with ri blue base ; and mauriana, rich scarlet, with pu yellow base, are always dangerous competitors ; a Flame, glowing red ; Couranti fulgens, rose ; a Goldfinder, orange scarlet, often wrongly cal Cyclops, sometimes assert themselves.

May-flowering or Cottage reds for beds or massi —Nothing can rival in brilliance and magnificer Scarlet Mammoth. It is a sort of early bird th always gets my eye, and all through the seas the remembrance of its glorious colouring haun me. A serious rival is to be found in Pompado from Ireland. There is a richness and distincti in the shade of its crimson that I cannot recall any other variety, and on this account it is oft placed first. Glare of the Garden, a brigh shade ; and Caledonia, fiery red, are always wor remembering.

May-flowering or Cottage, yellow shades, point flowers.—The pale yellow Solfatare, a newcom with fulgens blood, should be placed first ; the I think, Ellen Willmott, lovely pale lemon ; a Golden Spire, large deep rich yellow. M Moon is often much admired.

May-flowering or Cottage, yellow, globul flowers.—Gesneriana lutea, rich yellow, an o well-tried and reliable variety ; and Inglescom Yellow, pale yellow, cannot well be beaten.

May-flowering, orange shades.—It is general a walk-over for Orange King, glowing orange.

May-flowering, olive and bronzy browns a yellows.—Clio, lovely biscuit brown ; Toison d'C rich browny yellow ; and Goudvinck, rosy apric and yellow, will take a great deal of beating, a are the three to which I pin my faith.

May-flowering, art shades.—Fairy Queen, ro heliotrope and amber ; John Ruskin, rosy, wi apricot and yellow shading ; and Mrs. Kerrill, ro and amber shaded, are three very excellent Tuli that always merit a high place on account of th effective and unique colouring.

This section of May-flowering Tulips might still further sub-divided, but for the present t above must suffice. They comprise, for the mo part, oldish but, at the same time, reliab varieties, and taken altogether are a fine lot.

A FEW CULTURAL DETAILS.

Tulips are not at all particular about soil. Perhaps they do best in one which is not too stiff and which is not too rich. The old florists always considered Lord Mayor's Day an ideal time at which to plant. If we extend the period to, say, a week on either side of it, we get a fixed space of time in which we should try to get our bulbs underground. I have, however, planted as late as mid-December, and have had excellent results.

Darwin Tulips are rapidly growing in favour for pots. They should be started soon now and grown as "cool" as possible. I should not advise anyone to try to get them before the middle or end of March, unless they have had very considerable experience. Blue Celeste, White Queen, William Pitt, Erguste, Professor Rauwenhoff and Psyche are some that I have found to do well. As a contrast I would advise a few pots of Jaune d'Œuf and Clio or Bronze Queen.

I strongly advise everyone to take up all their Tulips every year, unless they have a very light soil. The time to do this is when the leaves have turned yellow and before they have quite withered up; they then retain their outer skins when they are dried off. If this short period is missed, the bulbs never look so bright and nice, and soon lose their skins.

Always try to put Tulips in positions where they will not get much wind in the cold spring months. Nothing seems more fatal to them than this, and "fire" is almost always very prevalent in such situations. JOSEPH JACOB.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Lifting bulbs (*C. M.*). — We cannot lay down hard-and-fast rules for the lifting of Daffodils or other bulbs; everything depends on circumstances, and the continued good health and free-flowering of the plants in particular. Daffodils that require attention should not be lifted in spring, but in early July, and should then be divided and replanted again within a short period. Snowdrops, Winter Aconites, Chionodoxas, Cyclamen Coum, Snowflakes, Crocuses, Anemone blanda, A. robinsoniana and many bulbous Irises and Fritillarias all flower in advance of the main body of Daffodils; those earliest mentioned usually take the lead in this respect.

Plants for shady border (*C. M.*).—The following are good for the position, but as you give no idea of the size of the border we are unable to more definitely assist you. Mossy Saxifrages, any of the Campanulas, Megaseas, alpine and setacea Phloxes, Inula glandulosa, Saxifraga granulata plena, Hepaticas, Christmas and Lenten Roses, Iris pumila, Primulas in great variety—more particularly Sieboldii, japonica, rosea, Munroi, denticulata, &c.—Anemone sylvestris, A. japonica in variety, and many more. Just what plants will succeed depends upon the amount and the density of the shade.

Canterbury Bells (*Q. R. S.*).—These may be transplanted now, but you will gain nothing by any attempt to divide the plants. Carefully transplanted they would hardly feel the moving. The plants frequently behave as you describe, and it may result from a too late sowing of the seeds, the season, or the precociousness of some seedlings over others. Exhibition blooms of Sweet Peas of the highest quality are usually the product of isolated plants or very thinly planted groups of such. The wire support would not affect the matter in the least, provided the plants were liberally treated and so thinly planted that abundance of light and air were admitted on all sides.

TREES AND SHRUBS.

Treatment for Wellingtonia (*A. F. N.*)—The Wellingtonia, or, giving it its correct name, Sequoia gigantea, succeeds best in a sheltered position in rich, moist, but moderately well-drained ground. It dislikes dry, sandy ground, and also heavy clay, which in wet weather is liable to become water-logged, and in dry weather cracks. Soil rich in humus, and also that of a peaty character, suit it admirably, and it is often seen at its best in a moist valley where the atmosphere is moisture-laden. The South-West of England and the West of Scotland offer ideal conditions; but very good specimens may be noted in many parts of the country, except in exposed positions or in very poor ground.

Sprays of Romneya for inspection (*Thorpe*). The pest attacking the Romneya could not be found, but if it is a caterpillar—and the appearance of the damage points to that—it would be well to dust it next season as soon as any damage is evident with Hellebore powder.

Treatment for Clematis (*F. A. S.*). — The white Clematis is a form of C. lanuginosa, but the exact variety cannot be given as the flower is a very small one and not typical. The plant should be pruned in February. Cut back this year's wood to within about six buds of the base. The purple Clematis is C. Jackmanii. Cut back this year's wood next February to within two or three buds of the base.

Alder trees in water (*N. Stratford-Collins*).—It is more than probable that your Alder trees will suffer badly, if they do not die, if, as you say, they will have to stand perpetually in water, for though Alders thrive in damp places, they do not like to stand right in water. A great deal depends, however, on the depth of the water and on the character of the soil in which the trees are growing.

Leaves of Pinus Pinaster turning brown (*Persona*).—It is impossible to say without examining the trees what is the reason of the branches of your trees of Pinus Pinaster going brown. They ought, at fifty years of age, to be in the best of health and keep on growing for many years to come. It may be that the browning is but temporary, and that you will see an improvement when new growth appears next year. We advise you to get some local expert to examine the trees and give his advice.

Akebia growing over Rhododendrons (*E. E. J.*). Your plant of Akebia quinata which is growing over your Rhododendrons is certainly likely to injure them if allowed to grow unchecked. A north aspect is not a good one for this climber, and we advise you to transfer it to the sunniest position possible. When you remove it, a good plan would be to cut away some of the branches in order that root disturbance may be to some extent counterbalanced. It would also be a good plan to try and root a potful of cuttings, in case the specimen does not transplant well. The work ought to be done as soon as damp weather sets in or be left until next spring. A bad time is between the middle of November and the end of January.

ROSE GARDEN.

Roses for garden decoration (*A. W. F.*). Of your list we should name the following twelve as being the best for garden decoration: General Macarthur, Prince de Bulgarie, Mrs. T. Roosevelt, Betty, Lady Ashtown, Ecarlate, Mrs. E. G. Hill, Harry Kirk, Lyon Rose, Earl of Warwick Mrs. Joseph Hill and Mme. C. de Luze. A dozen others of our selection would be Gustav Grunerwald, Laurent Carle, Mme. Leon Pain, Mme. Antoine Mari, Pharisaer, Mme. Abel Chatenay, Frau Karl Druschki, Edu Meyer, Lady Roberts, Richmond, Mme. Ravary and Kronprinzessin Cecilie.

Preparing new garden for Roses (*A. C. A.*).—You must be careful you do not give the Roses too much manure. The manures you mention are very powerful fertilisers, and, seeing that the soil is part of an old meadow, we should advise you to be cautious. If you added some basic slag to the lower spit and some crushed bones to the upper soil as you trench, you could dispense with other manure this year. Next summer, when the plants show bloom-buds, give them some Wakeley's Hop Manure, an excellent substitute for farmyard manure. It will be best to plant this autumn.

Roses planted last autumn (*J. H. W.*).—We should not advise you to do much pruning before the spring, but such growths that sway about in the wind would be just as well shortened back a little, unless they are climbing and pillar Roses, in which case do not shorten them at all.

Perpetual-flowering climbing Roses (*E. B., Hawkworth*).—Most of the climbing Tea, Noisette and Hybrid Tea Roses are perpetual-flowering, two fine sorts being Climbing Caroline Testout and Mme. Alfred Carriere. Trier is a very beautiful sort, much better than Perpetual Thalia, and Alister Stella Gray is also excellent. These two would not grow quite so strong as the first two.

Roses for wall of lean-to greenhouse (*K. E. J.*).—In a length of 19 feet you could plant about six Roses to train on the wall, and you could in a bed 3 feet wide plant a row in front of sorts not so strong in growth. For this front row you could plant about nine plants. For the wall Niphetos, Pharisaer and Anna Olivier would do well, and three other good kinds would be Richmond, Lyon Rose and Molly Sharman Crawford. For the front row Le Progres, Mrs. Aaron Ward, Paul Lede, Mrs. A. Westmacott, George C. Waud, Mrs. D. Jardine, Mrs. Peter Blair, Rhea Reid and Liberty.

THE GREENHOUSE.

Palms failing (*Canada*).—So many causes may have led to the death of your Palms. They may have been allowed to get too dry or too wet, this last being a frequent cause of Palms falling into ill-health. These plants need plenty of water, but, at the same time, thorough drainage is essential, so that water must never be allowed to stand in the saucers or jardinieres in which the plants are placed. If this is done it sets up a sour condition of the soil and the roots perish. Another frequent reason that Palms often fail indoors is that, for purposes of sale and in order to obtain effective plants quickly, they are grown in a warm, moist atmosphere, and consequently the change is too great for them. We do not know what the winter temperature of your cool room in Canada is, but in order to keep the plants in health the thermometer at night should not fall below 45°. As the window is the coolest part of the room, indoor plants may often be saved during cold weather by removing them to the centre of the room and covering them with newspapers. The best Palms for rooms are Kentia belmoreana, K. forsteriana, Rhapis flabelliformis, Latania borbonica, Corypha australis and Phœnix canariensis. Palms grown for decorative purposes do not require a rich soil, but rather that of a good holding nature. Fibrous loam with a sprinkling of sand, lightened, if necessary, by a little leaf-mould, will suit them well. When the pots are full of roots, an occasional stimulant in the shape of one of the many concentrated manures now so popular will be of great benefit.

Plants for heated greenhouse (*J. B. R.*).—For the small greenhouse which is unheated, and, at the same time, partially shaded, it will be useless to think of flowers except during the summer months. It can, however, be, as you suggest, beautified, and we think that, considering its somewhat shady position, you could not do better than grow a collection of hardy Ferns therein. Many of these are deciduous, but, on the other hand, a good percentage of evergreen ones might be selected, and even those that die down during the winter are so additionally attractive just as the young fronds are pushing up as to fully compensate for their bare appearance when dormant. A great many of the finest hardy Ferns are of easy culture, though, of course, some are more difficult to do well, but these at present can be left severely alone, though in time you might be inclined to try some of them. In the case of the larger greenhouse, from which frost is just excluded, you will find it difficult to maintain a display in winter. In autumn Chrysanthemums are exceedingly

valuable, and such things as the scarlet Salvia splendens and the blue Salvia azurea grandiflora or Pitcherii afford a variety of colour. Then Roman Hyacinths and Paper-White Narcissi will, if potted at once, bloom soon after Christmas, while Primulas also make a show. The scarlet berries of Solanum Capsicastrum are also very bright at that season, and last fresh a long time. Bulbs of various kinds, potted in the autumn, stood out of doors and covered with ashes till well rooted, and after that taken into the greenhouse, will flower earlier than the outside ones, and are then consequently much appreciated. Other late winter and spring flowering subjects are Spiræas, Lily of the Valley, Dielytra spectabilis and Solomon's Seal, all of which can be obtained at a comparatively cheap rate. Indian Azaleas, too, should give satisfaction, and small bushes of the hardy kinds, as well as Lilacs, Prunus triloba and other things will anticipate their usual period of blooming out of doors, and yield a good display. For summer the choice of flowering plants is an extensive one.

FRUIT GARDEN.

Melons and table plants (*Milo*). — The only variety of Melon grown in this country for dessert is a tender and exotic plant supposed to be a native of the hotter parts of Asia. One of the handsomest and most fruitful of these, we think, is Royal Sovereign. These highly prized and delicious fruits can be successfully grown in cold frames on a hot-bed in summer and autumn, but they cannot be successfully grown in the open air. The Cantaloupe and the Coulommier are grown out of doors on the Continent, the latter being the hardier of the two, succeeding very well out of doors without shelter in parts of Normandy. *Re* table plants, we do not know whether you want to grow the plants for exhibition or for home use. If for the former, 5-inch diameter pots are the limit; nothing larger than this is permitted. If for home decoration, the vase, or whatever the plant has to be placed in, has, more often than not, to determine the size of the pot the plant is in. As to what kinds of plants are most suitable, this again depends on whether your plants are to be grown in heat or in a cold greenhouse, and whether you prefer foliage or flowering plants. Among the latter there are no plants more useful, beautiful, or more easily grown for late winter, spring and early summer than Hyacinths, Tulips and Narcissi, and, later on, the Amaryllis and the Vallota. Of foliage plants there are many suitable to choose from, including the richly coloured, fine-leaved and graceful Crotons. Palms in great variety may also be used for this purpose, including Kentia belmoreana and K. forsteriana, Cocos weddelliana and C. plumosa, Phœnix rupicola, Areca lutescens and the golden variegated Pine (Ananassa sativa). Pandanus Veitchii also makes a handsome plant for this purpose, and so do many of the fragile-looking and beautiful Aralias.

Moving Pear and Plum trees to plant against a wall (*C. C. B.*).—The young trees could be moved and replanted with safety if the work is carefully carried out and they are planted in suitable soil against the wall. We are presuming that the trees are less than twelve years old. If older than this, it would require the services of an expert to move them safely.

Treatment of Vines at rest (*Vine, Guernsey*). (*a*) Yes; give it a good soaking of manure-water. It will help the Vines to recoup after the stress of fruit-bearing. (*b*) No; cover over with dry leaves of the present year's growth 9 inches to 12 inches deep, and cover over with a light thatch of straw to prevent the leaves blowing about. This will prevent the border from becoming too wet in winter and protect it from severe frost. The covering should be placed on the first week in November and taken off the first week in May. If the border wants top-dressing with new soil, it should be done before the leaves are laid on. (*c*) Regarding the best thing to use for cleaning the rods, this depends on whether the Vines are clean or are infested with fungus or insect pests. If the Vines are fairly clean, it will be enough if you rub the canes well and hard with the hands while they are dry. This will remove all the loose surface bark and dust, &c., and then wash your Vines with a preparation of Gishurst Compound. This can be had, with directions as to its use, from all seed merchants and garden sundriesmen advertising with us.

MISCELLANEOUS.

Soil for analysis (*E. R.*).—We are unable to undertake analysis of soil for our readers, but Fellows of the Royal Horticultural Society are able to obtain analyses from the Consulting Chemist at a reduced fee. The use of lime and thorough cultivation, judging from the appearance of your soil, are urgently called for, and will be of great assistance in ridding the soil of pests. The bronze beetles you refer to are friends of the gardener, not foes.

Carrots for inspection (*H. G. B.*).—The Carrots are very badly attacked by the larvæ of the Carrot fly. Late sowing sometimes avoids the attack of this pest, but perhaps the best thing to do is to put along the roots a little sand which has been damped with paraffin, commencing as soon as the Carrots are ready for thinning and renewing if necessary. Take care in the thinning to disturb the ground as little as possible, so as to prevent the fly from getting near the root to lay its eggs.

Lawn grass dying (*J. W. G.*).—From what you say of your lawn dying off in rings it is very evident that a fungoid disease is at work. These rings are commonly called fairy rings, and at this season of the year it often happens that numerous small Toadstools are to be seen springing from the rings. The fungus always grows outwardly, so that, whatever is done, a few inches round the outer sides of the circles must be treated likewise. Watering with a sulphate of iron mixture has been recommended as a remedy; but after trying it we have found that the best method to adopt is to remove the soil a foot deep from all the affected areas and make up with new soil. The soil removed, it must be remembered, is full of mycelium; therefore it ought not to be spread on other grass. No amount of manuring is likely to cure it.

Improving light soil (*E. C. G.*).—You can improve your light ground and make it suitable for the growth of trees and shrubs by mixing half-decayed leaves and cow-manure together, allowing it to rot for a few weeks, and trenching it into the ground. The ground ought to be trenched 1½ feet deep, and a layer of manure dug into the bottom of each trench. More manure may be incorporated as the work proceeds. The soil would be in better condition for shrub growth if a crop of strong-growing annuals were allowed to grow on the ground next year, then the whole ground forked deeply over before planting shrubs next autumn. Should this not be possible, you might plant a few strong-growing subjects to take off the bareness of the ground, and sow the remainder with annuals in preparation for choicer shrubs next autumn. Should you be able to procure any heavier soil in the neighbourhood, an addition of that would be advisable. Seaweed may be used, but it ought to lie buried a year before shrubs are planted in the ground. A crop of annuals could, however, be taken from the ground. It would be advisable to look round the neighbourhood and see what particular shrubs are growing well. That will be a guide to the best kinds to obtain for your position. Tamarix, Veronicas, Hydrangeas, Sea Buckthorn, Olearia Haastii, Euonymus, Viburnums, Diervillas, Brooms, Spiræas and Cotoneasters are all likely to thrive.

Names of fruit.—*K. Henderson.*—1, St. Luke; 2, Old Bergamotte; 3, Catillac; 4, Tyler's Kernel; 5, Newton Wonder; 6, Pitmaston Duchess.——*Mercury.*—Apples: 2, Lane's Prince Albert; 19, Ribston Pippin; 20 and 22, Warner's King; 21, Sugarloaf; 23, Withington Fillbasket; 24, Leathercoat Russet; 25, Lemon Pippin; 32, Blenheim Orange. Pears: 26, Brown Beurré; 27, Marie Louise; 30, St. Luke; 31, Duchesse de Angouleme; 33, Catillac.——*Mr. Savery.*—Beurré Superfin.——*Scholastic.*—A, Northern Greening; B, Beauty of Hants.——*W. Ingram.*—1, Royal Nonsuch; 2, Yorkshire Beauty.——*G. Tyler.*—Apples: 1, Striped Beaufin; 2, Annie Elizabeth; 3, Stirling Castle; 4, Rosemary Russet; 5, Nelson's Codlin; 6, Reinette Grise; 7, Beauty of Kent; 8, Boston Russet. Pears: 1, Thompson's; 2, Winter Nelis.——*Lieutenant-Colonel H. F. Dent.*—King of the Pippins, a dessert variety.——*L. Y.*—1, Kerry Pippin; 2, King of the Pippins.——*J. E. R.*—1, King of the Pippins; 2, Blenheim Orange; 3, Beauty of Hants; 4, Rosemary Russet; 5, Wellington; 6, Schoolmaster; 7, Hereford Beaufin; 8, Sandringham; 9, Lamb Abbey Pearmain; 10, Nelson's Codlin.

Names of plants.—*G. S. S.*—Phytolacca decandra. The roots of this plant are poisonous, and probably the fruit is also.——*J. Goodfellow.*—1, Cestrum aurantiacum; 2, Calceolaria species, please send better specimen; 3, Polygonum vaccinifolium; 4, Coronilla coronata.——*Mrs. Andrew Smith.*—Osmanthus Aquifolium.——*Miss A. Hulse.*—Tunica Saxifraga.——*A. B. T., Clevedon.*—The Salvia appears to be a pale-flowered form of S. azurea, a plant which with age may attain to several feet in height. It is not hardy, and would require to be wintered in a greenhouse secure from frost.——*G. H. B., Stockwell.*—We regret that the Dahlia blooms were not in a condition to name. The yellow Chrysanthemum is Horace Martin; the white, Mme. C. Desgrange; the mauve, Mme. Marie Massé; and the other two bronzy-coloured flowers are those of Crimson Marie Massé in different stages of development.——*H. H.*—The Rose is Elizabeth Barnes.——*Mrs. F. Liebert.*—1, Aster multiflorus; 2, A. cordifolius; 3, A. patens; 4, A. Amellus variety; 5, A. acris; 6, A. Novæ-Angliæ ruber; 7, A. ericoides; 8, A. Tradescantii; 9, A. salicifolius.——*Miss Clark Cowper.*—1, Aster diffusus horizontalis; 2, A. amethystinus; 3, A. cordifolius; 4, A. ericoides; 5, A. Linosyris; 6, A. Novæ-Angliæ pulchellus; 7, A. Novi-Belgii; 8, A. Novæ-Angliæ roseus; 9, A. cordifolius; 10 and 11, too small to name; 12, A. Novæ-Angliæ ruber; 13, too small; 14, 15 and 24, A. acris; 17, too small; 18, A. patens; 19, A. Amellus; 20 and 21, too small; 22 and 23, A. ericoides variety; 25, A. polyphyllus; 26 and 27, too small; 28, Erigeron philadelphicus; 29, Aster Tradescantii.——*R. O. N.*—Cuphea ignea and Nægelia cinnabarina.——*Mrs. E. A. Bailey.*—Sternbergia lutea.——*J. W. B. Whetham.*—Chironia ixifera

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE usual fortnightly exhibition was held at the Horticultural Hall, Vincent Square, Westminster, on Tuesday, October 25. Vegetables formed the chief feature of the exhibition, and hardy flowers were also well represented.

FRUIT AND VEGETABLE COMMITTEE.

Present: W. Poupart, Esq. (chairman), and Messrs. Cheal, J. Jaques, T. Coomber, W. Crump, H. S. Rivers, A. Dean, G. Wythes, J. Vert, G. Reynolds, J. Lyne, C. Walter, C. Hobday, H. Parr, A. R. Allan, W. Fyfe, G. Pope, J. Gibson, J. Harrison, E. Beckett, W. Bates, G. Thomas and J. Davis.

A very good exhibit, consisting of twenty-four varieties of Apples, grown in Aghem Ponna, County Cork, was shown by C. B. Broad, Esq., Frume, West Hill, Putney, S.W. Among the collection were splendid dishes of Bat Wolseley, Newton Wonder, Coronation, Charles Ross and Gascoyne's Scarlet. The dessert varieties were remarkable for their good colour. Silver Banksian medal.

From Messrs. Sutton and Sons, Reading, came a representative collection of Tomatoes, both yellow and red. Most of them had been grown in the open air. The variety Golden Nugget appears to give the most satisfaction of the yellow varieties when grown in the open, and among the best of the reds were Eclipse, Open Air and Winsall Beauty. From the same firm came a wonderful display of vegetables, occupying a staging of 250 feet. The Onions, Leeks and Carrots were remarkable for their clean and well-finished appearance. The collection included lesser-known vegetables, such as Couve Tronchuda or Portugal Cabbage, Perpetual Spinach Beet, Chinese or Japanese Artichoke (Stachys tuberifera), Kohl Rabi, New Zealand Spinach and Globe Artichokes. Gold medal.

A silver-gilt Knightian medal was awarded to Messrs. J. Veitch and Sons, Limited, Chelsea, for a first-rate collection of vegetables, including Parsnips Hollow Crown and Elcombe's Improved, Brussels Sprouts Paragon and Solidity, Beetroots Cheltenham Green-top and Pragnell's Exhibition (the latter remarkably fine) and Onions Ailsa Craig and Main Crop. Other features of this collection were to be seen in Cabbage Winningstadt, Colewort Savoys and Exhibition Kale.

A collection of eighty varieties of Potatoes was staged in baskets by Mr. R. W. Green, Wisbech. The varieties shown were examples of this firm's Potatoes as grown from seed. Silver Knightian medal.

A silver-gilt Banksian medal was awarded to Mrs. Banks, 102, Park Street, London, for a collection of home-made preserves. The preserved fruits had retained their colour admirably.

The committee awarded a vote of thanks to Mr. Sheppard, Sangley Farm, Catford, for average specimens of Autumn Giant Cauliflowers, cut from a seven-acre field on which Cauliflowers had been grown for thirteen successive years (with the exception of one season under Beet a year ago). The heads were above the average size and of good quality.

A similar award was made to Messrs. Dobbie and Co., Edinburgh, for two baskets of Potatoes Dobbie's Favourite and The Factor, also for a collection of Parsley.

ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (chairman), and Messrs. James O'Brien, Stuart Low, F. Sander, R. G. Thwaites, F. Menteith Ogilvie, A. A. McBean, W. Cobb, J. Charlesworth, J. Cypher, C. H. Curtis, W. H. Hatcher, H. G. Alexander, A. Dye, W. H. White, H. Ballantine, Gurney Wilson, C. J. Lucas, C. Cookson, F. J. Hanbury and Sir Jeremiah Colman.

Messrs. Charlesworth and Co., Hayward's Heath, gained a silver Flora medal for a fine show of Orchids, including Vanda cærulea, Oncidium tigrinum and many Cattleya hybrids.

Messrs. Sander and Sons, St. Albans, gained a similar award for an interesting collection, in which we noted such curious forms as Bulbophyllum Dearei, Cycnoches chlorochilon, Lycaste macrophylla and a fine group of Cypripedium insigne Sanderæ.

Messrs. Mansell and Hatcher, Limited, Rawdon, Yorkshire, had a group of Orchids, in which we noted Cattleya Fabia, Brasso-Cattleya Mendelii-digbyano, Lælio-Cattleya luminosa and the graceful Cypripedium Penelope. Silver Banksian medal.

Messrs. Stuart Low and Co. staged a good collection of Cattleyas and Odontoglossums overhung with branching sprays of Oncidium varicosum. Silver Flora medal.

Mr. E. V. Low, Hayward's Heath, sent some good forms of Cattleya labiata. The following were very good: Vale Bridge variety, eximea and Empress. Silver Banksian medal.

Messrs. J. and A. McBean, Cooksbridge, gained a silver Banksian medal for a small group of Cattleyas and a good variety of Miltonia vexillaria.

A similar award was gained by Messrs. Armstrong and Brown, Tunbridge Wells, for Cypripediums and Cattleyas.

Sir Jeremiah Colman, Bart., sent a small but choice collection of Cirrhopetalums, Odontioda Bradshawiæ and Calanthe densiflora. The last-named gained an award of merit, and will be described in our next issue.

Messrs. Stanley and Co., Southgate, staged the following Cattleyas: C. Fabia, C. labiata, C. Minucia and some hybrids.

*** *Owing to the demand on our space, we are compelled to hold over the report of the Floral Committee exhibits and the competitive exhibits of vegetables until next week.*

THE GARDEN.

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CONTENTS.

THE "INTERNATIONAL HORTICULTURAL EXHIBITION 545
NOTES OF THE WEEK
Forthcoming events 546
CORRESPONDENCE
Next year's fruit prospects 547
GARDENING OF THE WEEK
For the South and South Midlands.. 547
For the North and North Midlands.. 547
NURSERY NOTES
Messrs. G. Bunyard and Co. 548
KITCHEN GARDEN
Couve Tronchuda, or Portugal Cabbage 548
Boiled Celery as a vegetable 548
A well-grown white Chimney Bellflower 548
FLOWER GARDEN
Sweet Pea chat .. 548
The rock garden in autumn 549
Convolvulus mauritanicus 549
A rare early-flowering Stokesia .. 549
ROSE GARDEN
New Roses of the year 550
COLOURED PLATE
Rose Mrs. Edward J. Holland 551
TREES AND SHRUBS
Wistaria multijuga 551
Eucalyptus pulverulenta 551
FRUIT GARDEN
The gathering and keeping of late Apples.. 551
GARDENING FOR BEGINNERS
Garden work week by week 552
Planting fruit trees 552
Apple Bramley's Seedling 553
Root-pruning fruit trees 553
THE TOWN GARDEN.. 553
BOOKS 554
New plants 554
Editor's Table 555
ANSWERS TO CORRESPONDENTS
Flower garden .. 555
Miscellaneous .. 556
SOCIETIES 556

ILLUSTRATIONS.

A well-grown Campanula pyramidalis alba 548
Convolvulus mauritanicus in a rock garden in Wales 549
Stokesia cyanea præcox at Kew 550
Rose Mrs. Edward J. Holland .. .. .. Coloured plate
Wistaria multijuga at Myddelton House.. 551
How to plant fruit trees 552, 553

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE INTERNATIONAL HORTICULTURAL EXHIBITION.

WE are now in a position to give our readers some particulars concerning the proposed International horticultural exhibition to be held in 1912 from May 22 to May 30 inclusive, a date to which we shall have occasion to refer later. Under the chairmanship of J. Gurney Fowler, Esq., a meeting of the general committee, numbering one hundred and fifty, was held at the Hotel Windsor, Victoria Street, Westminster, on Tuesday, the 25th ult. This meeting of the general committee was called for the purpose of placing before the members a definite scheme which had been drawn up by the executive committee, and which was subsequently unanimously adopted. It is rare indeed that we are privileged to see such a gathering of horticulturists as were present on this occasion, and if the exhibition can only be made as thoroughly representative of British and Irish horticulture as is the *personnel* of the general committee, its success is assured. The chairman announced that Their Majesties the King and Queen, as well as most of the members of the Royal Family, had consented to become patrons of the exhibition, and most of the influential people interested in horticulture were willing to become vice-presidents.

For the purposes of conducting the exhibition on a business basis, a company with a nominal capital of £1,000 has been formed. The shareholders will derive no benefit whatever from the company, and any profits that are made will be devoted to the several gardening charities or kindred societies. Several sub-committees, to deal respectively with the schedule, receptions and other matters, have been formed, and we are promised a rough draft of the schedule in about a week's time, so that growers who intend to show may have plenty of time to prepare their exhibits, a wise movement that augurs well for the show. Local committees are to be formed all over the United Kingdom, and the official representatives of our Colonies have all consented to serve on a committee which, the chairman remarked, ought to be known as the Colonial list of honour. Regarding the International aspect of the exhibition, all invitations that have been sent to foreigners have been cordially accepted.

When we come to the financial aspect of the exhibition, it is with pleasure that we learn that Sir Jeremiah Colman, Bart., has consented to act as hon. treasurer. The finances of the company will thus be in thoroughly capable hands. All those who are in any way interested in the exhibition are invited to become guarantors or to subscribe, and each guarantor and subscriber will receive tickets of admission exceeding in value the amount subscribed. The Royal Horticultural Society has offered the executive committee £1,000 for preliminary expenses, and will guarantee a further £4,000 if a similar amount is guaranteed from other sources.

The site chosen for the exhibition is the Chelsea Hospital garden, where 16½ acres of open space are available, and in addition there are about 3¾ acres of trees and shrubs which the committee anticipate will form suitable backgrounds for the various outdoor exhibits. The Chelsea Hospital garden is easily reached from the Sloane Square Station of the Underground Railway.

Sir Albert Rollit, in moving the adoption of the report, raised the important question of holding a conference during the exhibition on how best to promote horticultural and agricultural education in this country. Such a conference, if conducted in a proper manner, would be of immense value to the various county councils of the kingdom, and also to their horticultural instructors, who would of necessity have to be the chief speakers at such a conference. To be of any real value the papers and discussions dealt with would have to be subsequently published in pamphlet form, a point that should not be lost sight of. Mr. P. Anderson Graham, Editor of *Country Life*, in seconding the adoption of the report, very wisely drew attention to the importance of having a section of the educational department devoted to the various insects that prey upon plants and the best methods of combating them. We would go further and include fungoid diseases. Any such section must, however, be of a thoroughly practical character if it is to be of any real use to gardeners; the usual museum sort of display is of very little value to growers.

Generally speaking, the discussion was disappointing. Doubtless most of those present felt that everything that could possibly be done had been well carried out by the executive committee, who must have worked hard to advance matters to their present stage in the comparatively

short period that has elapsed since the exhibition was first decided upon. The question of a suitable date is always one of the most difficult points that a committee has to decide. It is, of course, essential for the success of any exhibition, and particularly one of an International character, to induce the public to attend and to select a date that will be most convenient to the greatest number; but it is also necessary to get the exhibits there for the public to see. Unfortunately, owing to the early date decided upon, all sections of British horticulture cannot be thoroughly represented, the fruit and vegetable departments naturally suffering most in this respect. Of forced vegetables and fruits there will, no doubt, be some, but many more cultivators of these would have been enabled to exhibit, and thus have made the show more representative, had the date been a month later. The Royal Horticultural Society, in addition to assisting the company financially, have decided not to hold their spring (Temple) show in 1912. The hon. secretary of the exhibition is Mr. E. White, 7, Victoria Chambers, Victoria Street, Westminster.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 8.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster; Lecture at three o'clock on "Observations on the Blossoming of our Hardy Cultivated Fruits," by Mr. C. H. Hooper. Southampton Royal Horticultural Society's Chrysanthemum and Autumn Show (two days). Birmingham Chrysanthemum and Fruit Show (three days).

November 9.—Liverpool Horticultural Association's Chrysanthemum Show (two days). Northampton Show (two days).

November 10.—Hitchin Chrysanthemum Show. Putney, Wandsworth and District Chrysanthemum Society's Show (two days).

November 11.—Bradford Show (two days). Sheffield Chrysanthemum Show (two days). Huddersfield Chrysanthemum Show (two days).

November 12.—Burton-on-Trent Chrysanthemum Show.

Trial of Peas.—At a meeting of the council of the Royal Horticultural Society on October 25 a letter was read from one of the leading seed firms pointing out that it was not quite fair in the trial of Peas at Wisley to compare, and to adjudicate on the merits of, varieties sown on different dates; and urging that all Peas sent for trial ought to be sown on one and the same day. The council saw the point, but felt, on the other hand, that it would not be quite fair on an admittedly late Pea to sow it on the same day as an admittedly early one. After consideration, it was decided for 1911 and in future to ask for one pint (instead of half a pint) of seed Peas and divide it into three parts, and make sowings of all varieties on three different dates suiting early, midseason and late Peas, as in this way only could the two difficulties mentioned be overcome. It is desired, therefore, to correct the list of trials which appeared in these columns a fortnight ago, by substituting one pint for half a pint of Pea seed required to be sent to Wisley.

Trials of fruits and flowers at Wisley. A special sub-committee of the fruit committee of the Royal Horticultural Society visited Wisley on October 13 and recommended awards of merit to the following, which were confirmed by the council at its meeting on Tuesday, October 25: Apple Hounslow Wonder, from Messrs. Spooner, Hounslow; and Peach Salway, from the Duke of Richmond, Goodwood. A special sub-committee of the floral committee visited Wisley on October 18, when awards of merit were recommended to the following, and which were confirmed by the council at its meeting on the 25th ult.: Chrysanthemums Crimson Queen, October Gold, Bouquet Rose and Eden, from Messrs. Dobbie and Co., Edinburgh; Chrysanthemums Freedom, Wells' Scarlet, Mrs. Tom White and Snowstorm, from Messrs. Wells, Merstham. Wells' Scarlet was also sent by Messrs. Dobbie and Co.—W. WILKS, *Secretary, Royal Horticultural Society.*

New Principal for the Essex County Laboratories. — Mr. James Guthrie Stewart, M.A., B.Sc., has been appointed Principal of the Essex County Laboratories, Chelmsford, at a salary of £500 per annum. This is one of the most important appointments in the country, both from an agricultural and horticultural standpoint. Since March, 1908, Mr. Stewart has been lecturer on agriculture, mensuration, land surveying and dairying at the Edinburgh and East of Scotland College of Agriculture, and previous to that he had been connected with the Leeds University and the Aberdeen University. Various bulletins and leaflets written by Mr. Stewart have appeared from time to time from the Leeds University, and one on "Potato-growing in Yorkshire" has been published by the Board of Agriculture and Fisheries.

Horticultural Society for Yorkshire. The Lord Mayor of Leeds presided over a large gathering of interested people on the 26th ult. for the purpose of forming a horticultural society for Yorkshire. The following resolutions were adopted: That a horticultural society, to be affiliated, if possible, with the Royal Horticultural Society, be formed, with its headquarters in Leeds. That the society be called the Yorkshire Horticultural Society. That the minimum annual subscriptions be: For honorary members 1 guinea, and for amateurs and professional gardeners 5s. A provisional committee was elected, and the rules will be drawn up by this committee in due course.

Gooseberry mildew.—In consequence of the spread of American Gooseberry mildew during the summer, the Board of Agriculture and Fisheries recommend all purchasers of Gooseberry bushes, from whatever source they are obtained, to examine their purchases very carefully on delivery, to cleanse the plants thoroughly from all earth, and to remove and burn the tips of the shoots before planting. If any trace of disease is found, the purchaser should communicate with the Board and supply full information as to the source from which the consignments were obtained, in order that the matter may be investigated.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Grape Gros Guillaume.—The illustration of this Grape on page 530 well displays the variety at its best. I do not remember having seen bunches so large and shapely or furnished with such large berries as those illustrated when shown at the recent fruit show. As examples of cultural skill they were much to be commended; but when we think about their eating properties one has to confess that therein lies a weakness. Apart from appearance, one might easily be forgiven for asking, Of what use are such huge bunches of ill-flavoured berries? Fortunately, this variety and several other huge-bunched sorts, like Trebbiano, are being less cultivated than formerly. Much better occupy the space with varieties like Black Hamburgh and Madresfield Court, which are ideal varieties for flavour and sorts that no one can take exception to. When Gros Guillaume is grown in such a manner that the bunches weigh about 4lb. each, with uniform large berries that usually colour well, it may easily be passed off as Black Hamburgh. This has been done on more than one occasion by adding the prefix Pennington Hall. The late Mr. Barron in his book on Vines declared they were synonymous. Dr. Hogg says this Grape was introduced by Sir John Mordaunt about the year 1840, and is, no doubt, a seedling.

Rose General Macarthur.—I note on page 494 "Alvaston" does not care for this Rose How strange are the tastes of individuals! I am acquainted with those who look upon this as being one of the most useful of all Roses for freedom of flowering, stiffness of flower-stems, rich colour and, what is important, its sweet fragrance. General Macarthur was sent out by Messrs. E. G. Hill and Co. in 1905, consequently it is of American origin, and has made much progress in this country since it was introduced. From mildew it is immune with me, and that is another point in its favour.

Pea Goldfinder.—I note Mr. Jackson's reference to this Pea in his remarks about the Exeter nurseries of Messrs. Robert Veitch and Sons. I have grown this Pea yearly for the last twenty years, and I wish more would do so, as it cannot be beaten for crop, hardiness, immunity from mildew in any season, and, what is of even more importance, flavour. In height it grows 6 feet, and has short pods after the style of Ne Plus Ultra, each of which is tightly packed with nine large, deep green Peas. There is such a craze at the present moment for huge pods that small-podded varieties have little chance of recognition.—E. M.

Herbaceous Pæonies.—In the interesting article on herbaceous Pæonies in THE GARDEN for October 15 I see the writer recommends the planting of Narcissi among Pæonies. I have also seen this urged in many books on gardening of the more intelligent kind, and yet my own experience of the preferences of Daffodils and Pæonies makes such a combination impossible. Pæonies, as the writer of the article truly points out, are voracious feeders, while Daffodils abhor manure of any kind, as I have proved times out of number; therefore, how can they be grown together? Are there varieties that will bear manure? If so, what are they? Perhaps some of your readers would tell me. The idea of yellow and white Narcissi among the early red Pæony shoots is, I admit, a beautiful one, but the practice seems fraught with impossibilities. Early Tulips and Hyacinths, no doubt, would flourish in a Pæony-bed, and, of course, some of the Lilies later on; but surely not Daffodils. If I am wrong, I should be most grateful for correction, having several large Pæony-beds which in early spring days are somewhat bare and unsightly.—S. PRENDERGAST, *Isle of Wight.*

Culinary Peas.—A gardening friend has furnished me with a record of the gathering of his crops of Peas, which is of more than usual interest. He has picked all the Peas himself and, moreover, counted and recorded them in a book daily. From three rows of Gradus, each 35 feet long, number of pods gathered, 3,000; one row of mixed, Gradus, Magnum Bonum and Stratagem, 38 feet long, 1,292 pods. The Stratagem practically failed. One row of Magnum Bonum, 38 feet long, number of pods 2,267; one row of Autocrat, 36 feet long,

930 pods; one row of Gladstone, 38 feet long, 610 pods; total number of pods, 8,099; average number of Peas in a pod, 7·5. He relates also that the following Peas have done badly in his garden: Pilot, Veitch's Perfection, Stratagem and Gladstone. The following did remarkably well: Gradus, Magnum Bonum and Autocrat. He found no advantage in sowing before the middle of March or after the first week in June. He hopes to sow next season at intervals of a week from Lady Day to the beginning of June. He has ordered all his Peas for 1911. His first picking this year was on July 2, and the last on October 15. —W. A. COOK.

Next year's fruit prospects.—It may be yet a far cry to next summer, but the few intervening months will soon pass, and then the year and all its promises and anticipations will be here. Even now, while the Royal Horticultural Society's great fruit show of the year is yet an immediate remembrance, the minds of all who grow fruit, and they are legion, are concerned with the possible or probable crop of fruit next year will bring forth. It is interesting, as it is also pleasant, to find how acceptable to all these has been the delightful dry, maturing weather experienced through September and partly into October. Perfect unanimity exists as to the great value of such weather and of its exceedingly beneficial influence on trees and bushes in thoroughly hardening or ripening wood, maturing buds, and creating in those buds the germs of that florescence which is far more likely to be fertile in fruit production than was the case with the wondrous garland of weak and unproductive bloom the unfavourable weather of the preceding autumn furnished to our trees last spring. In the autumn so sappy was much of the later wood growth on trees that leaves fell late, and the wood failed to harden or mature. No such conditions now prevail; indeed, rarely have trees and bushes given greater promise of real cropping capacities than this glorious autumn has furnished to us. If anything could serve to compensate for the present season's scarcity, it should be found in the excellent prospects for the coming year. But, delightful as were those autumn days up to the 11th ult., no one interested in fruit culture could do otherwise than rejoice over the heavy falls of rain which just then occurred, rainfalls that did much to deeply moisten soils that had become very dry, and which came specially as a joy and deliverance to all fruit tree traders, who so far had found in the very dry condition of the ground grave difficulties as to lifting or sending out trees to purchasers. In a few hours, however, all was changed. Good old Dame Nature, a veritable fairy, waved her wand and the dryness of air and soil disappeared, the fertilising waters fell freely and immense good resulted. Both the prospects of the future and the present facilities the moist soil now offers as to lifting and planting trees should give to fruit culture a great impetus. We have so much room for that expansion. While in our nurseries there are scores of thousands of trees and bushes ready to lift and replant wherever room can be found, so are there many thousands of acres of land in the kingdom which could be far more profitably occupied than it now is in producing fruit, and in so doing give employment to an army of men and women in occupations that would be at once healthful and remunerative. The recent fruit show was a good one for the season, which has not been good in its way; but we look, not so long hence, to see fruit exhibitions of our own productions such as shall far exceed and outshine that. We have a vast body of fruit consumers to satisfy. They clamour for more. It is for us to see that such a supply is provided as shall suffice for all requirements.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

VINES.—Those which are to be started in December will now require pruning and cleaning. The growths should be cut back to two buds and the rods thoroughly cleaned and washed. Extra attention must be given to the work if mealy bug abounds, and all loose bark cleaned off the rod. Soft soap dissolved in boiling water with a little petroleum added makes an excellent wash for the wood and the iron work of the house, and Gishurst Compound for the Vines. The surface soil should be taken off the border and a top-dressing given. Good loam, with bone-meal mixed with it, makes an excellent top-dressing.

Early Peach-house.—Providing the trees received the pruning advised in earlier calendars, there will not be much to cut away now. The fact must be borne in mind that, although it is a great mistake to have the wood too thick, yet the shoots in the early house should be tied in a little closer than in later ones. The house and trees must be thoroughly cleansed and the walls whitewashed. The young wood requires careful handling when the washing operations are being done, so as to avoid injuring the buds. The borders should be slightly pricked up with a fork and the loose soil taken away. The top-dressing ought to consist of loam, with bone-meal and old mortar rubble mixed with it. After top-dressing a thorough soaking should be afforded, and the house will be in readiness for closing when required.

FORCED VEGETABLES.

Asparagus.—A commencement may now be made with the forcing of the above vegetable. A heated pit is an excellent place providing it will allow 3 feet in depth for a bed of leaves. No stable litter will be required with the leaves, as they alone will create ample heat that will be lasting and steady. The roots should be placed thickly together directly on the leaves and covered with 1 inch or 2 inches of fine soil. When the soil has been put on, a good watering must be given. Asparagus may also be forced in frames on hot-beds or in the Mushroom-house.

Rhubarb.—A few well-ripened roots of an early variety should be lifted and exposed for a few days before attempting to force them. It is an understood fact that exposure is of great assistance in the forcing. The roots may be placed in the Mushroom-house or boxed and brought on in a warm house. In any case a high temperature must be avoided.

Seakale.—Like Rhubarb, this forces better after exposure. The usual method is to fill 9-inch pots with the roots, working some fine soil in with them. Stand the pots in a warm house and place an inverted pot over the crowns to keep them dark.

HARDY FRUITS.

Pears.—Although the Pear does not take such a prominent place in the kitchen as the Apple, it is more sought after for dessert. Those who intend planting should get the trees in the ground without delay. It is partial to a warm position and well-drained soil. The following are a few excellent varieties in the order of ripening: Doyenné d'Eté, Jargonelle, Souvenir du Congres, Williams's Bon Chrétien, Louise Bonne of Jersey, Durondeau, Pitmaston Duchess, Beurré Hardy, Doyenné du Comice, Nouvelle Fulvie and Beurré Rance, all dessert varieties. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

ROSE GARDEN.

PLANTING.—There are few gardens which do not require some additions or alterations to the Rose-beds each autumn, and now is the best time of the whole year for this work. Select a good dry day for the planting, as a propitious start is of the greatest importance to the plants. To place the roots of Roses in wet, pasty soil is to court disaster, as firm planting is imperative, and to tread down wet earth over the roots will certainly sour it and make it useless for the plants. It is a good plan to have at hand some fine, dry, sandy material, such as is used for inserting cuttings in, and to give a good shovelful to each plant before filling up with the ordinary soil. This compost will be easily shaken in among the roots and prove more congenial than ordinary garden loam. Having well firmed the soil round the roots and levelled the bed properly, the next consideration must be the mulching of the plants. While many growers object to this mulching, I must say that I have always considered it to be beneficial and practise it every autumn. Rough stable manure is best, as it is comparatively dry, and so admits warmth to the soil. Besides this mulching of manure, it is well to stick in a few Spruce branches round the more tender varieties. Any little protection of this sort often means the difference between success and failure.

PLANTS UNDER GLASS.

Early Bulbs.—The earliest batch will by now be ready for removal from the plunging material. Set in a cold frame and well mat the lights for a week or ten days. Afterwards gradually admit light and air, and remove to a greenhouse temperature in batches according to the demands. It is always best to bring on all bulbs quite slowly at first. If there is any necessity for hurrying them into flower, it must be in the later stages that real forcing is carried out. The Roman Hyacinth can stand a good deal of heat; but, naturally, strong forcing causes the blooms to fade rapidly. Daffodils very quickly resent a high temperature.

Cinerarias.—Keep these near the glass in a house or pit from which frost is just excluded. If the pots are well filled with roots, gentle feeding should be given about twice a week. Soot-water and ordinary liquid manure used in a weak state are admirable, while for a change a tablespoonful of Ichthemic Guano in a gallon of water is excellent.

Schizanthus.—Keep these quite close to the glass, as they are inclined to grow weak and thin. Keep quite cool, but free from frost. A constant watch must be kept to see that slugs and snails are checked, as they are fond of the young plants and very soon destroy them seeing they are so soft. Some growers spoil their Schizanthus by leaving too many plants in a pot. If properly managed one is quite sufficient. The only secret is to keep pinching out the points of the plants so as to induce a sturdy, bushy habit.

KITCHEN GARDEN.

Globe Artichokes.—This valuable vegetable must now be carefully mulched for the winter, if not already done. It is damp rather than frost that harms it, so something of a light, rather open nature should be used. Dry leaves are as good as anything, and a quantity should be heaped up round each plant. The foliage of the Artichokes should not be covered. As the wind would soon displace the leaves, it is necessary to thatch them over with long stable litter.

C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

NURSERY NOTES.

MESSRS. G. BUNYARD AND CO.

ONE of the most extensive nurseries in South-Eastern England, and the best kept, devoted principally to the rearing of fruit trees is that of Messrs. G. Bunyard and Co., Limited, of Maidstone. The chief area is at Barming, and it consists of light loamy soil of considerable depth, lying on a gentle elevation above the town of Maidstone—a sort of table-land. As is well known, a light loam favours the formation of abundant roots. The timely ripening of the summer's growth this year, notwithstanding the unfavourable character of the weather as a whole, is splendid in all sorts of hardy fruit trees. These were standing about in immense battalions ready for lifting as orders come in. We noted some quarters of pyramidal Pears on the Quince stock, capital trees four to five years old, ideal for the amateur's garden as also for commercial orchard planting. Adjacent were quarters of standard and half-standard trees three to four years old, numbering 20,000 in each quarter. It should be mentioned that the quarters when quite cleared are put under Clover, with an addition of London stable manure in large quantity, which is then turned in by the plough the next winter. We observed a fine lot of the Christmas Pearmain (Bunyard's, 1905), a fruit with scarlet cheek and russet markings, a great cropper and free from canker, good as an orchard standard and for planting in town gardens; it is a table variety, coming into use in December.

Other Apples were Golden Spire, Lane's Prince Albert, Ribston Pippin, Cox's Orange Pippin, Early Victoria (a Codlin of medium size, one of the best for early use, growing with vigour and bearing abundantly—its synonym is Emneth's Early), Worcester Pearmain and King Edward VII. (the coming kitchen Apple). Ben's Red (Bunyard, 1890) is a table fruit of middle size and good appearance, the growth sturdy and compact. It is a more regular bearer than Quarrenden, which it resembles, and is highly recommended for market purposes.

A quarter planted with 50,000 trees of market Apples was pointed out to us. They were two years old. Another quarter under Apples consisted of 12,000 trees. Fine breaks of Pears on the Quince, and of that fine dark purple Plum Monarch, two years old, were observed, likewise a quarter of bush Apple trees sixteen years old, which furnish much of the fine fruit the firm sends to exhibitions. The Spice Apple of Essex was still hanging on the trees. We learned that the Apple Royal Jubilee (Bunyard), owing to its late flowering, escapes spring frosts, and as it puts forth leaves late in the spring, it also escapes the attacks of the Codlin moth. The wood also ripens early.

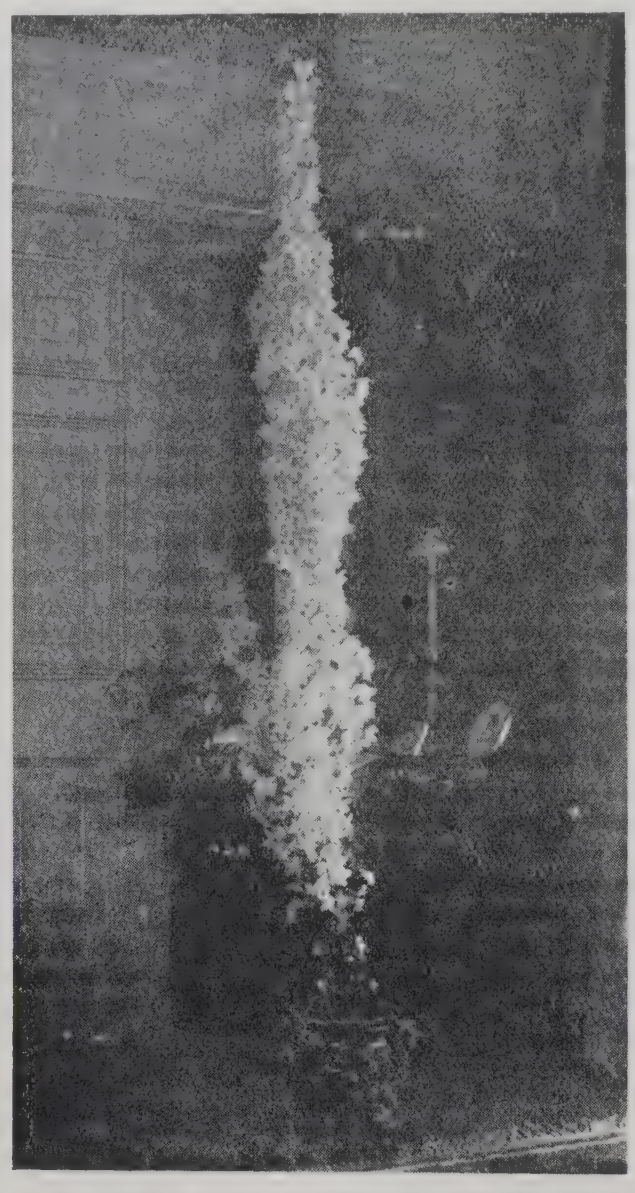
Trained Peaches and Nectarines were splendid, but they were not too strong, and the current year's shoots were well matured and of that ruddy tint so much liked by the cultivator. Morello Cherries were excellent as trained trees, as were also May Duke, and all stone fruits were noted in prodigious numbers.

The following were among the ornamental trees and shrubs, of which a large collection of new and old species and varieties exists in the nursery: Conifers, Hollies, hardy Ericas, Azaleas, Rhododendrons, Yucca angustifolia and double-flowering Peach, a plant better than the Almond, being later in flowering; in consequence it does not get spoiled by bad weather.

THE KITCHEN GARDEN.

COUVE TRONCHUDA, OR PORTUGAL CABBAGE

SOME of the heads of this vegetable recently exhibited at the great show of the National Vegetable Society were different to what one could desire; at least, in some cases the exhibits staged were too small to show the habit of growth and its value as a vegetable. There were numerous enquiries as to its value, how grown and how cooked,



A WELL-GROWN CAMPANULA PYRAMIDALIS ALBA.

and it is to these points my note refers. In many gardens, I fear, Couve Tronchuda will not become a standard vegetable; but it is well worth growing and very distinct in well-cultivated soil. It requires much space, as the plant has a great spread, and when the leaves are large and succulent the midribs are thick, white and tender, and if served like Seakale, cooked in the same manner—I mean the midribs tied in small bundles and cooked—it is delicious and a really good vegetable; but, of course, when only the small top of the plant is cut, it is quite a different vegetable. At the same time, the tops are excellent, but I would advise growing the plants a good size, using the midribs of the large lower leaves as described and the tops last. There are several ways of cooking, which I will not now dwell upon, as I have before stated the best is when cooked like Seakale. The plant is of simple culture. Sow seeds in February and March or April, and if given good ground and ample space there will be a good return for several months in the autumn and winter.

BOILED CELERY AS A VEGETABLE.

THE value of Celery as an autumn and winter vegetable is often overlooked, but in my opinion it is superior to Seakale, and though I do not know if its medicinal qualities are as great as is stated by those who should understand this point, I am well aware that in a boiled state it is nutritious and excellent, and may be taken by an invalid. It would be out of the question to boil such splendid material as that recently exhibited at the National Vegetable Society's show, but it is not necessary to spend so much labour as would be entailed on such produce. For many years I procured what we termed our vegetable Celery by growing a dwarf white form, such as Sutton's White Gem, Dwarf White, or the older Sandringham White. A trench was made sufficiently wide to plant six rows abreast, and earthing or moulding up was not attempted till growth was well advanced in the late summer or early autumn. Grown thus the labour is not great, and as the plant is not blanched till full grown, it is better able to stand hard weather. The culture is simple, and in dry weather the trench can be flooded. I should also add that the flavour of this vegetable is much improved by occasional dressings of salt when growth is vigorous. Soot also is valuable in building up good leaf-growth.

G. WYTHES

A WELL-GROWN WHITE CHIMNEY BELLFLOWER.

THE Campanula shown in the accompanying illustration was grown in the gardens at Wormstall, Newbury, Berks. The photograph was kindly sent to us by Mrs. Eric Charrington. It is the white-flowered variety of the Chimney Bellflower (Campanula pyramidalis), and the plant is 8½ feet high. Considering its height and the fact that flowers are freely produced from base to summit, this plant reflects great credit on Mrs. Charrington's gardener, who, we understand, has been responsible for its culture.

THE FLOWER GARDEN.

SWEET PEA CHAT.

AUTUMN SOIL PREPARATION.

THERE are thousands of enthusiastic growers of Sweet Peas who have not yet fallen into line with those who sow their seeds in the autumn, and probably they never will do so because they have always achieved such excellent results by commencing in the spring, either in pots or in the old-fashioned way out of doors in the position where it is desired that the plants which form the row or clump shall flower. One can scarcely blame them for adhering closely to a system that has proved so satisfactory and with the details of which they have made themselves so completely familiar. By following it they are practically certain of excellent results, whereas if a departure were made there would be a real prospect of partial failure.

In these notes, however, it is not intended to argue for or against any particular method of procedure, but to urge the desirability of preparing this month the situations chosen for the Sweet Peas next season. The argument of many people is that the plant is such a gross feeder that it is quite immaterial when the ground is prepared or whether the manure used be fresh or rotted; and while one may admit that there is a decided element of truth in this, one is ready to assert that to plant in recently manured soil, especially

when the manure is fresh, is to court trouble with the plants in the earliest stages, to favour the dropping of buds which has become worse in any circumstances of late years, and in the production of those coarse flowers that have already robbed the Sweet Pea of some of its artistic grace and beauty, and which will, if carried very much further, spoil the flower completely. All these things may come after autumn work; but, provided that proper care is taken in all matters of preliminary detail, the probabilities that such will be the case are reduced to the minimum.

Acknowledging immediately that the plants will demand a heavy dressing of manure, we are met with the problem as to whether it should be distributed as evenly as possible throughout the area or if it should be placed in masses at the bottom of deep trenches. With the latter system I have no sympathy whatever when the working is done in the spring, and very little when it is done in the autumn. Generally speaking, it is much preferable to incorporate all manure that is on the fresh side into the second spit, and if the material is thoroughly good—as, of course, it must be to ensure the finest results—the nutrient properties contained in it will have widely and evenly distributed throughout the soil, and the plants will immediately derive full benefit when they have roots and top growth capable of assimilating them. Much of the ordinary manure that is employed is low in plant food value, and if it is possible to add to each ton or load prior to the application 28lb. of good guano, it will be immensely improved. The manure should be spread out in a thin layer and the guano scattered over the surface, afterwards turning the material two or three times to ensure perfect mixing. In the spring, when the surface is being broken down to secure the required friable tilth, a little superphosphate and sulphate of potash can be added with considerable advantage, as also may any other approved fertiliser.

As far as the working itself is concerned, one cannot err in the depth of moving. Ordinary digging that will turn 10 inches or 12 inches is good, but bastard trenching to about double those depths is decidedly better, while growers who are in the happy position of having 3 feet of workable soil should never be satisfied until the whole of it has been thoroughly moved. In some instances full trenching, in which the subsoil comes up and the surface soil goes down, can be done; but generally it is safer to maintain the original positions and rely upon opening up both layers. In all circumstances the surface must be left as rough and lumpy as possible, since that condition favours the admission of rain and frost, and the physical texture of the ground is at once improved by natural agencies. In some instances, and still with precisely the same object in view, it is sound practice to throw up the soil in ridges; but whichever course is pursued, the weather will have so affected the lumps that it will be comparatively easy in the early months of the year to break down the surface and secure a beautiful tilth. Deep cultivation is the secret of success in growing Sweet Peas.

SPENCER.

THE ROCK GARDEN IN AUTUMN.

THE following plants are among the more showy inhabitants of the rock garden during September and October:

Polygonum affine.—This is a very showy and decorative plant during September and October. It grows over the ground like a carpet and produces dense spikes of bright rosy flowers, which last a considerable time. It should be grown by the side of a large boulder, when it looks perfect. This plant can be propagated by means of layers or cuttings, and if planted in a clump soon becomes effective. Take care that it is kept free of other plants; if crowded it loses its charm.

Polygonum vaccinifolium.—This is another trailing species, which flowers generally from July to October. It is by no means so large as the former, but, at the same time, is quite distinct. The flowers are in upright spikes and are rose coloured. The plant may be easily propagated by layers. To layer the shoots place a little fresh soil under the longest, cut a little notch on the under side of each shoot, and peg down and cover with soil. Keep well watered for a few weeks, when new plants will soon be available. The plants grow best when placed on the north-west side of the rock garden.

CONVOLVULUS MAURITANICUS IN A ROCK GARDEN IN WALES.

Polygala Chamæbuxus.—This is a dwarf evergreen shrub which is in flower nearly all the late summer, autumn and winter, and is a grand plant for the rock garden. The flowers are sulphur-coloured, tipped with purple, and are exceedingly pretty. This plant does best on the cool north-west side of the garden, and if planted near large stones obtains plenty of moisture, which it likes, though it must be on an elevation and with well-drained soil. There is another variety, P. C. purpurea, which is very similar to the above, but it has purple flowers. Both are pretty and compact, growing not more than 9 inches to 1 foot in height. Another species, P. C. lutea, from America, has yellow flowers, and these open during late summer, autumn and early winter; in fact, I think I have found flowers on these plants for quite six months. All these may be perpetuated by cuttings or layers

Leonardslee Gardens. W. A. COOK.

CONVOLVULUS MAURITANICUS.

THIS pale blue Bindweed from the shores of the Mediterranean is never so happy in our damp climate as on a dry wall. The plant in the illustration grows where one wall joins another at the foot of a flight of stone steps. There is a depth of 2 feet of good soil between the walls. This plant, a rooted cutting of the spring, would in a warm summer have been twice its size by the middle of October. I have tried the Convolvulus in different situations, and though on a bank of deep rich soil it flourishes and blooms amazingly, it will not winter; but given a dry perch on the top of a wall or well-drained stony and south slope, such as Onosma tauricum and Antirrhinum glutinosum love, and it will be with you many years, and each year a greater favourite. It is strange that this beautiful Convolvulus is not more grown, for it is of easy culture and its wonderful Periwinkle blue flowers are produced with increased vigour in the autumn when we are apt to describe our rock gardens as having nothing in them. Cuttings taken in the autumn root in a cold frame as easily as Violas or Pentstemons.

E. M. WHITEHEAD.

Linda Vista, Abergavenny.

A RARE EARLY FLOWERING STOKESIA.

STOKES'S ASTER (Stokesia cyanea) is an old inhabitant of our gardens, but has the great disadvantage that it is so late in blooming, in some seasons not opening its flowers at all. In the variety præcox we have an early flowering form that comes into full flower in August. It is a very handsome plant of freely branching habit, about 1 foot high, while the large purple blue flowers measure 3 inches to 3½ inches in diameter. As may be seen by the illustration on page 550, they very much resemble the Chinese Aster, but the solitary flower-heads are surrounded by a leafy involucre that is somewhat spiny. The early flowering form has been in cultivation before, but apparently died out, as it was only reintroduced about five years ago. Although it is an extremely rare plant in its native habitat (South Carolina, &c.), where it grows in moist, low ground, it appears to be somewhat variable, as there is a beautiful white variety also in gardens. They are all of easy cultivation, enjoying a rather sunny position in light, rich soil where there is plenty of moisture. Seeds do not ripen freely, seldom at all, but the plants may be increased by division in the spring. Cuttings may also be taken off when the plant commences to grow in spring, and these will strike readily if placed in sandy soil and put into a close frame that is heated. Quite hardy and perennial, the early flowering form and the white variety are both first-rate and very attractive plants, well worth a place in the border. W. I.

THE ROSE GARDEN.

NEW ROSES OF THE YEAR.

(*Continued from page* 538.)

MME. F. DUBRIEUL (H.T., Dubrieul, 1909).—A very free-flowering variety, buds bright carmine, opening to fine China rose colour.

Mme. G. Serrurier (T., Soupert et Notting, 1909).—Flowers creamy white, tinted with rose, of Camellia form. A lovely bedding Rose. From G. Nabonnand, crossed with Mrs. W. J. Grant.

Mme. L. Simon (H.T., Lambert, 1909).—Colour dark rose, with yellow centre, reverse of petals crimson. A very free bloomer, of vigorous, erect growth. A cross between Marie van Houtte and Caroline Testout.

Mrs. A. Munt (H.T., A. Dickson and Sons).—Ivory white, shaded buff, of good, erect growth, of perfect form and fragrant. I always thought this Rose deserved a gold medal.

STOKESIA CYANEA PRÆCOX AT KEW. (*See page* 549.)

Mrs. A. R. Waddell (H.T., Pernet-Ducher, 1908). What a marvellous colour are the buds of this lovely Rose! There is absolutely no variety of such a deep apricot shade, reminding one of an old Rose Perle de Feu. It is a grand bedder, growth as vigorous as Marie van Houtte. It must surely become very popular as a decorative Rose, although one could wish its expanded flowers were of the rich colour also.

Mrs. A. Tate (H.T., S. McGredy and Son, 1909). This beautiful decorative Rose received a gold medal at the Bagatelle trials this year, and one is not surprised it was thus honoured. The colour is coppery red, shaded fawn, with ochre shading at base of petals. The blooms are extra long, and in a cool season superb, standing up well on stiff footstalks. It is also very sweet.

Mrs. Charles Custis Harrison (H.T., A. Dickson and Sons, 1910).—Another fine, erect grower, a feature that lends such a distinct value to any Rose. The colour is deep crimson pink in front of petals, crayoned deep crimson-carmine on the reverse side. Very sweet, the petals massive, and the flower large and full.

Mrs. Charles E. Allan (H.T., Hugh Dickson).—One of those lovely sorts that possess the Lyon Rose tints; a Rose that will, I fancy, become popular when introduced.

Mrs. E. J. Holland (H.T., S. McGredy and Son, 1909).—This is a flower of the Kaiserin Augusta type, of a rich salmon rose colour, shaded lighter towards edges. The perfect form will make it a valuable exhibition variety, and its freedom of growth and floriferousness will commend it to all who plant for garden decoration. Well worthy of the gold medal awarded last year.

Mrs. Fred Straker (H.T., A. Dickson and Sons, 1910).—Another Newtownards novelty that well maintains the reputation of these raisers, and when they say it is the most delightful Rose they have raised, surely such a judgment should be sufficient recommendation, seeing that we owe the greater part of our best modern Roses to Messrs. A. Dickson and Sons. I am of opinion that this Rose will eventually displace Mme. Abel Chatenay. Its long and elegant buds, its marvellous colouring, orange crimson in the young flower, silvery fawn and orange pink as the bloom develops, is a combination of tints found in no other Rose. It is free in blooming, in growth it is perfect, and altogether a really first-rate decorative variety.

Mrs. George Preston (H.T., A. Dickson and Sons, 1910).—A Rose of enormous size, full and globular, colour silvery rose pink; sometimes in autumn a delicate orange tint prevails in the flowers.

Mrs. G. Henslow (H.P., Turner).—As shown at Holland House this was the grand colour of Xavier Olibo, but with growth, I am told, equal to Ulrich Brunner. We want some good rich-coloured varieties that are vigorous, such as this, for many of those we possess are of very moderate growth.

Mrs. Hubert Taylor (T., A. Dickson and Sons, 1909).—This is, I believe, a sport of Mme. Cusin, but of more vigorous growth, and the blooms are larger. The colour is shell pink, edges of petals ivory white. Splendid for exhibition and pot culture.

Mrs. H. Stevens (T., S. McGredy and Son, 1910). A Rose of rare beauty, long and even more pointed than Maman Cochet. The colour is white, shaded fawn and peach. A free bloomer, yet withal producing flowers of exhibition standard.

Mrs. James White (H.T., Hugh Dickson, 1910). A Camellia-shaped Rose of a lovely colouring—crushed strawberry of a deep tint. It is a most useful garden Rose, growth vigorous.

Mrs. Leonard Petrie (H.T., A. Dickson and Sons, 1910).—Colour honey yellow, with claret shading on back of outer petals, changing to sulphur yellow as the bloom develops. A large, smooth flower of sweet fragrance.

Mrs. Maynard Sinton (H.T., S. McGredy and Son, 1910).—A Rose of enormous size. Many of these very large-flowered exhibition Roses possess the somewhat dwarfish growth of the White Lady tribe, which may be admissible for exhibitors, but is a type we do not want in our gardens. However, I cannot say until tested whether this grand Rose is superior in growth to the Rose named; if it is, then it will be welcome, for without a doubt its bloom is magnificent, of a silvery white shade, with a pink suffusion towards edges of petals. These latter are of great depth and ivory-like substance, and, what is very unusual in these very large Roses, it possesses a most wonderful perfume.

Mrs. P. H. Coats (H.T., Hugh Dickson, 1909).—An excellent novelty for massing, probably surpassing Kaiserin Augusta Victoria. The flowers are delicate milky white, and are produced most abundantly and continuously.

Mrs. Philip Le Cornu (H.T., Le Cornu, 1910).—A deeper-coloured Mrs. W. J. Grant. Somehow the public did not take to this Rose. There is a certain heaviness about its colour, and unless of special merit we do not want any more Roses of the Mrs. W. J. Grant habit of growth.

Mrs. Walter Easlea (H.T., A. Dickson and Sons, 1910).—I should not be surprised if this charming variety does not prove to be one of the best dozen novelties of this year. The raisers had a magnificent bloom in their box of new Roses at the National Rose Show and at Holland House, and also at Liverpool they were showing it in grand form. The blooms are large, full and most freely produced, the petals very massive, smooth and circular. The colour is a glowing crimson-carmine, which as the flower expands deepens to intense orange crimson. The back of petals is an intense satiny crimson. To those who force Roses in quantity this variety will be a boon, for it possesses the freedom of Killarney and is of similar erect growth. American florists are, I am told, very keen on this Rose, believing it to be just the variety for their trade.

Mrs. Wilfred Lloyd (H.T., A. Dickson and Sons, 1910).—A Rose of La France type, and should be a splendid forcer, as its colour, a very intense rose pink, does not fade. The flowers are large, full and globular, with pretty reflexed petals.

Mrs. Wakefield Christie Miller (H.T., S. McGredy and Son, 1909).—A blending of colouring in one flower reminiscent of Grand Duc de Luxembourg and Joseph Lowe, and the blooms, being of enormous size and quite full, will make it a splendid decorative sort, especially as the flowers are borne erect, an invaluable feature in any garden Rose.

Mrs. Taft (Polyantha, Levavasseur, 1909).—A very much superior Rose to Mme. Norbert Levavasseur, of a rosy crimson colour, more nearly resembling Crimson Rambler, its pollen parent, the seed parent being Mme. N. Levavasseur.

My Maryland (H.T., Cook, 1908).—A grand colour of a lovely pink shade. Splendid for forcing.

P.

(*To be continued.*)

COLOURED PLATE.

PLATE 1412.

ROSE MRS. EDWARD J. HOLLAND.

(HYBRID TEA.)

ONE could not desire a more perfectly formed Rose than the exquisite novelty represented in the coloured plate. We have all learned to value the type of flower represented by Kaiserin Augusta Victoria, with the delightful circular arrangement of the centre petals, the somewhat high centre and the partly reflexed outer petals, and in Mrs. E. J. Holland this beauty of form is considerably improved upon. Without a doubt this variety will be largely sought after by exhibitors. In colour it is absolutely different to any Rose in our collection. It is surprising that with the number of pinks, salmon rose and similar shades already in existence there could be a novelty raised that was perfectly distinct, but it is so with Mrs. E. J. Holland. As a garden Rose it will be a most valuable addition, for it has upright and uniform growth, foliage that is mildew-proof, a sweet fragrance in its blossoms and a most perpetual-flowering habit. The National Rose Society awarded this variety their gold medal last year. The raisers are Messrs. S. McGredy and Son, Woodside Nurseries, Portadown, Ireland, who kindly supplied the flowers from which the coloured plate was prepared.

TREES & SHRUBS

WISTARIA MULTIJUGA.

THE individual flowers of this Wistaria are not so large or so highly coloured as those of the older and better-known W. chinensis; but the racemes of flowers in multijuga are so much longer, reaching to about a yard in length when the latest flowers have opened, that a plant in full bloom is a fine sight. Many times have I heard complaints of its shyness of flowering; but a glance at the accompanying illustration will show that it need not be condemned on this account if treated rightly. I have come to the conclusion that so long as it can find room to spread and cling and get support, so long it will give the whole of its mind to so doing, and, like the Ivy, until it has reached its limit of support it will not produce flowering buds. When stout, woody growth standing out free of any support can be formed it will flower freely. The shortening in of the long, slender growths to a foot or even less in late July will be found useful.

The tree illustrated has been planted ten years on a sloping bank of a lawn, and is now about 9 feet in height. It flowered rather sparingly for the first year or two, but in the last four seasons has been one of the most beautiful things in the garden for a fortnight or more in June, and even after flowering it has a peculiar grace and beauty of its own, due to the distinct yellow-green shade of its leaves. Some seasons it has produced a few of the curious pods, rather like French Beans, but the seeds failed to ripen before the frost destroyed them. I have planted as a companion the white-flowered form, and, though it has made good growth, as yet it has not flowered very satisfactorily. This year it was covered with flower-buds, but most of them dropped before colouring. I believe it gets too dry at the root in its position rather higher up the bank, and hope to try some means of remedying this another season. The ordinary mauve and also the white form of W. chinensis have been added to this group, but have not grown to anything like the size of the Japanese forms as yet, though promising so well that I feel justified in advising others to plant them all as specimen standards on lawns wherever room can be found for them.

Waltham Cross. E. AUGUSTUS BOWLES.

WISTARIA MULTIJUGA IN THE GARDENS OF MYDDELTON HOUSE, WALTHAM CROSS.

EUCALYPTUS PULVERULENTA.

THE value of the common Blue Gum (Eucalyptus globulus) is well known, both as a conservatory plant and for sub-tropical gardening. For the former purpose especially, I think, however, that E. pulverulenta—also known as cordata—is superior. It is a much dwarfer plant, and, as it does not require any pinching, it makes a more graceful specimen. The leaves are smaller and rounder than those of the Blue Gum, and remind one of the foliage of Sedum Sieboldii. It has the attractive glaucous hue of the Blue Gum and is equally easy of cultivation. Like E. globulus, it will give better results if the seeds are sown in autumn than if the operation is delayed till spring. With very few exceptions, all of the species of Eucalyptus are natives of Australia.

CALEDONIA.

THE FRUIT GARDEN

THE GATHERING AND KEEPING OF LATE APPLES.

IN gathering and storing Apples for late keeping much depends on the condition of the fruits when they are taken from the trees. Early varieties may be gathered at intervals according to the quantity required during the month of September, but late-keeping sorts should be left hanging on the trees till very late in the season, so that they may get fully matured, otherwise they will not keep sound and plump. The general rule is to gather when the fruit-stalk parts easily from the spur on the fruit being lifted slightly upwards; but this does not apply in all cases with very late-keeping varieties, so that extra care and judgment on the part of the cultivator is required if the fruits are wanted to keep till March and April. Some adhere to the rule, especially with Apples, of gathering them when the seeds have turned to a brown colour, which certainly indicates the approach of maturity, and such fruits may be safely gathered and stored when perfectly dry.

After the fruits are gathered, the storing is by no means uniform, each cultivator usually having his own method. Where properly built structures are provided, the difficulty of keeping the fruits during the winter and early spring months fresh is practically nil compared with those much less fortunate and who have to make the best of the available accommodation. What is required is a well-ventilated structure of uniform temperature, the atmosphere being sweet and dry, but not so dry as to cause the fruits to shrivel. I would strongly advise amateurs to avoid the use of hay or anything that has a tendency to become musty, as nothing imparts bad flavour to Apples more than a damp, ill-ventilated, musty atmosphere in which the fruits are stored. I have kept Apples firm and crisp till late in the season by storing them in two or three thicknesses in boxes placed in a loft out of the way of frost, and also laid on the flooring and in severe weather protected with a little dry Wheat straw, and in pots or tubs placed in a dark room.

The fruits should be gathered when perfectly dry, and any found bruised or damaged must be kept apart from the sound ones and made use of before they go bad. The good ones should then be very carefully placed where they are intended to be kept, and at intervals looked over, and any fruit which shows signs of decay should be instantly removed to prevent others from going the same way. Among our best-keeping culinary Apples are Bramley's Seedling, Lane's Prince Albert, Wellington, Northern Greening and Newton Wonder. Some good dessert Apples for keeping are Cox's Orange Pippin, Allington Pippin, Scarlet Nonpareil, Lord Hindlip and Duke of Devonshire. There are many others to select from, but where room is to be considered these will suffice.

Wrotham Park Gardens. H. MARKHAM.

GARDENING FOR BEGINNERS.

HOW TO PLANT FRUIT TREES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Nearly the whole of October rainy, dull, cold weather, with strong winds, prevailed, and the flower gardener had much difficulty in keeping lawns, paths and flower-borders clean and tidy. In some parts of the country frosts have already marred the beauty of unprotected Dahlias. Directly the

1.—BUSH APPLE TREE READY FOR PLANTING.

leaves are slightly blackened by frost, no time should be lost in getting the tubers lifted and prepared for storing. Cut off the stems about 1 foot above the soil, then very carefully remove the soil from the tubers so that the latter can be lifted without being damaged. Do not remove any portion of the soil that may adhere to the tubers, but place them in a cool, dry shed where they will be safe from frost for a few days. Directly the tubers are dried and the skin hardened, store them in sand, dry soil or Cocoanut fibre in a shed where frost will not reach them. The roots of Cannas and the tubers of Begonias must also be carefully stored away as soon as possible now. Rose cuttings may now be inserted. Select well-ripened shoots made during the current year and cut off the unripe ends, sever the cutting below a joint with a sharp knife, and insert the prepared cuttings in trenches made 4 inches deep on the north side of a wall or fence. Some coarse sand should be placed in the bottom of each trench for the base of the cutting to rest on. The soil must be made very firm around the cuttings, the average length of each being 9 inches. The immature ends of Rose branches may be cut off now, as if left unpruned until the spring the branches get much blown about by the winds, and the removal of the unripe ends of the shoots tends to a neater appearance.

Vegetable Garden.—Jerusalem Artichokes must be lifted and stored. The largest tubers should be stored separately from those of medium size, as the latter are the best for planting out in spring. A cold store just safe from frost is the best place. The tubers must be kept fresh and sound and in darkness; if unduly exposed the skins will shrivel somewhat. Every care must be taken to pick out all tubers, large and small, and then the ground should be deeply trenched. Mushroom-beds in the open air may be made up at once. Collect manure and tree leaves in the same way that they are collected and treated for beds in buildings. Any position may be chosen for the beds, but the ground should be naturally dry and not under the branches of trees. Ridge-shaped beds are the best; they are made, as a rule, 4 feet wide at the base and 3 feet high. Endive, nicely blanched, is much appreciated at this season. In order to keep up the supply, more plants should be lifted and packed fairly close together in cool frames. Keep the leaves free from slugs, do not overwater, and guard against excessive moisture.

Fruit Garden.—Probably many readers of THE GARDEN are now thinking of planting Raspberries, Blackberry and Japanese Wineberry plants. If these are to be grown in rows, the latter should, if possible, run north and south, so that both sides will receive the maximum amount of sunshine. I am referring here to Raspberries and the Japanese Wineberry, as the Blackberry plants should be grown near walls, if possible, and in positions facing south and south-west. Plant Raspberries in rows 6 feet apart and 1 foot from plant to plant in the rows, as young canes also require space to grow in. The Wineberry plants must have a space of 7 feet between the rows, as they grow tall. Take the opportunity to plant some Black Currants near walls facing the north, as such plants will afford a nice late crop of fruit.

Greenhouse and Frames.—The double and single flowers of the Bouvardia are now proving very useful, as they are so suitable for sprays and buttonholes, also for the furnishing of warm greenhouses. Mealy bug and brown scale infest these plants, and every effort should be made to keep the branches free from such pests. Bouvardias must have ample ventilation whenever the weather is fine; it is a mistake to force the growth at this season. Isolepis gracilis and other greenhouse Grasses must be cleared of all faded foliage at this season; then the plants will do much better during the winter-time. Put fresh ashes in frames, and take away any that have become green or badly soiled. Protect frames containing Callas and other tender plants every night. A. A.

PLANTING FRUIT TREES.

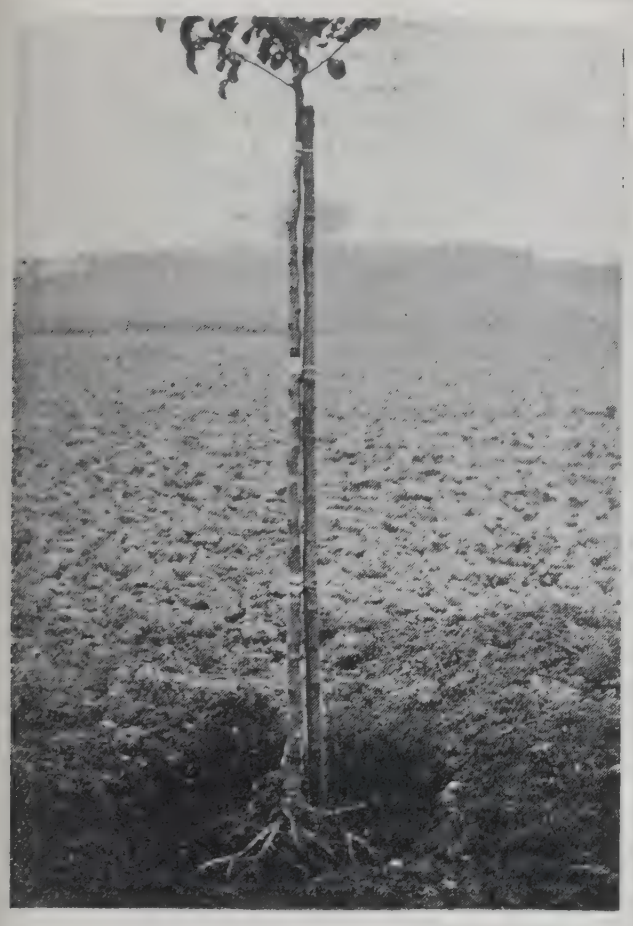
ALMOST every beginner in gardening aspires to grow at least a few fruit trees, but in how many instances do they succeed in carrying out the initial work in a satisfactory manner? Now that the autumn is well advanced it is time for the work of planting to be taken in hand. It is of the highest importance to secure the best varieties of the different subjects. All too frequently beginners come into the possession of fruit trees which, on being submitted to a fruit specialist, would be described as only second-rate in quality. It is far better to procure the necessary trees from a nurseryman of good repute.

The planting of bush fruit trees, such as Gooseberries and Currants, is usually done from late October onwards, when the weather is free from frost and the soil in a workable condition. Early November is the best time to plant Plum trees and mid-November for Apples and Pears. Generally speaking, however, planting may be done from November until the succeeding April providing the land is in good condition; but it is better to complete this work before the end of the year. During the autumn the soil is comparatively warm and the circulation of the sap has fallen to its lowest activity; moreover, damaged roots, which seem inevitable, no matter how carefully the trees are lifted, heal so much quicker where early planting is done.

Fig. 1 represents a bush Apple tree just as it was lifted from its position in the nursery. For the purpose of illustration the trees were lifted earlier than would otherwise have been the case, consequently the leaves had not commenced to fall. It is a good plan to carefully look over the roots before planting. Any that are damaged or unduly spreading should be cut back, using a sharp knife for the purpose and cutting them from below. Roots that grow directly downwards are of the nature of tap-roots. These should be shortened to within 6 inches of their base. It is possible, when the fruit trees are sent from a distance, that they have lost most of the soil about their roots, and the latter have become dry and shrivelled in consequence. In such cases immerse the roots in water for a short time before planting.

The beginner should understand that the site should be neither in a high and wind-swept situation nor yet in a low and overmoist position. A gentle slope in a south, south-east or south-west aspect is most suitable. Where the would-be grower has no such choice, he must make the most of the circumstances. Low and moist situations

2.—THE SAME TREE ADJUSTED IN POSITION



3.—STANDARD PEAR TREE, SHOWING METHOD OF STAKING.

must be drained, and in cold and bleak ones an effort should be made to obtain the shelter of other trees, walls or buildings. It is a distinct advantage to trench or bastard trench before planting. The mistake made by most beginners is that they seldom take out from the holes sufficient soil to accommodate the roots satisfactorily. To do the trees justice the holes should be made 3 feet wide and 18 inches deep. In the case of larger trees the dimensions must be increased correspondingly.

Fig. 2 aptly portrays a bush Apple tree adjusted in position. The reader will see at a glance how easy it is to fill in the soil round about the roots. Experts in fruit culture when placing their young trees make a point of maintaining the soil mark on the stem about 3 inches above the ground level, to allow for sinking. The soil mark shows the depth to which the tree was formerly planted. It may be well here to refer to the planting of standard fruit trees. In Fig. 3 a standard Pear tree is depicted. Precisely the same rule should be observed in taking out the soil, trimming the damaged roots of the tree and adjusting the same in position, with the addition, however, of inserting a stout and reliable stake for its support. The stake should be of a suitable length and just long enough to reach that portion of the tree where it branches into growth. Insert the stake in the ground between the roots a few inches removed from the stem, but refrain from making the necessary ties until the soil has been filled in the hole. Cover the roots with some fine soil, shaking the tree stem to assist in settling the finer particles of soil between them. The upper fibrous roots should be lifted and more soil added. This will have the effect of bringing them nearer the surface, which is much to be desired. Proceed to fill in the hole to within about 3 inches of the garden level, making this quite firm by careful treading. Secure the tree to the stake by placing straw between them and tying this with tarred twine. A cleaner and neater method is that of utilising pieces of old hose-piping in the form of a collar or band; failing this, pieces of thick cloth will answer the purpose very well. The method of securing these bands in position is shown in Fig. 3. The operation is completed by filling in the remaining space with soil, treading this in carefully, and still leaving the earth mark on the stem for righting itself ultimately by the settlement of the soil. Fig. 4 shows the operation of planting completed, with the necessary ties clearly depicted for the guidance of the beginner. It is unnecessary to stake bush or pyramid fruit trees. We are indebted to Messrs. William Cutbush and Sons of Barnet, Herts, for the opportunity of illustrating this article. D. B. CRANE.

APPLE BRAMLEY'S SEEDLING.

IN many districts, where the Apple crop has this season been scarce, the above variety, unlike most others, has borne well. It is doubtful whether any variety is so constant and reliable, and for this reason it is now being extensively planted by market growers. C.

ROOT-PRUNING FRUIT TREES.

IF there was more cutting of roots and less of branches of certain fruit trees which annually make vigorous shoots, there would be more fruits borne on them. More time and expense are entailed in the branch-pruning of fruit trees every year than is advisable or necessary. When this is repeated year after year we soon obtain very large trees composed of thick, long-jointed branches. In this country such branches will not ripen properly or bear much fruit blossom, and it is only when the trees are getting old and do not take up as much nourishment from the soil—because it is not available for them—that they begin to bear very medium crops on the outside parts of the branches.

We, in these days, want our young trees to be profitable, and judicious root-pruning will be a great aid in the matter. When young trees are purchased from the nurseryman they often bear fruit the next season. Why? Chiefly because they have been transplanted, perhaps, several times previously, possess plenty of fibrous roots, and the wood is ripe and studded with flower-buds. When such trees are planted in a loose, rich soil they soon make many roots and much top growth, and gradually become less fruitful. The young shoots may be cut back severely every autumn, but stronger ones will take their place the following summer. The cultivator must aim at growing small, but fruitful, trees. Plants growing in pots are always under proper control. The fruit-grower should also know exactly where his fruit tree roots are and their condition.

The best time for root-pruning is early in the autumn, but it may be successfully done any time during the winter months. The work should be done as follows: Take out a trench 3 feet from the stem of a tree, if the stem is 5 inches in diameter, 1 foot from the ground-level, and 5 feet distant if the trunk measures 8 inches across or thereabouts. Smaller trees may be root-pruned in the same way, but I prefer to entirely lift and replant them, cutting back the roots when needed. All large roots crossing the open, circular trench must be cut off, but the fibrous ones should not be cut. On one side the trench should be wider than on the other, so as to permit of the workman undermining the roots and severing them, including the tap-root. When all the roots have been cut off, fill in the trench again, making the soil very firm. Some old mortar rubble should be mixed with the original soil when dealing with stone fruit trees. The trees that mostly require root-pruning are those of Apples, Pears, Apricots, Plums, Peaches and Nectarines. AVON.

THE TOWN GARDEN

SPRING BEDDING ARRANGEMENTS.—The plants usually employed for this purpose are, happily, of the cheapest kinds, albeit they are also capable of being arranged with pretty and oftentimes telling effects by those who know how to make much of little things. Some of the subjects which occur at once to the mind are Daisies of all colours, Forget-me-nots, Silene pendula compacta, Aubrietias, Arabis, Alyssum and the like, one and all of which produce fine colour masses for very considerable periods. Then there are, of course, the earlier-flowering varieties of Viola or Tufted Pansy, whose sheets of blossoms can hardly be confined to a spring display. In such extensive gardens as are to be found at Belvoir Castle spring gardening may be said to have reached the highest perfection years ago, having done much to add lustre and fame to a garden which is ideal if not unique. There is, indeed, but one Belvoir.

THE TOWN GARDENER has not, however, to consider plants for the purpose in mind by hundreds of thousands, but by dozens or, occasionally, by hundreds. In this particular sphere, too, the amateur need not rely wholly on the subjects I have named, but, by using them in conjunction with bulbous or tuberous-rooted plants, may create for himself pretty effects which afford pleasure over a considerable period of time. For example, beds of white Tulips may be freely carpeted with double red Daisies, while, conversely, beds of scarlet Tulips might be clothed with white Daisies. In work of this kind the chief points to keep in mind are strong contrasts or pleasing harmonies of colours, the association of near akin shades in Hyacinths often proving singularly effective. An object-lesson of some worth in this direction, and commented on in THE GARDEN at the time, was the outcome of an exhibit of Hyacinths by Messrs Sutton in March last before the Royal Horticultural Society. Some of the finer effects were produced by the association of pale blue and cream, pink and pale blue, two shades of mauve, imperial red, white and blue, and pale yellow and dark blue. By keeping this idea in mind the amateur

4.—THE PLANTING OPERATION COMPLETED.

would be assisted in his endeavours to create pretty effects, to the discouragement of those indiscriminate mixtures which rarely, if ever, please.

POLYANTHUSES.—These old-time flowers are favourites still, probably by reason of their cheapness, their hardiness, or profuse flowering. Moreover, they are so easily raised from seeds, and the older plants so readily respond to division that they are little or no trouble to their owners. Seedlings invariably possess the greater vigour, and generally are the most reliable. The plants of these may now be put out in beds or borders, where they will provide a rich harvest of blossoms if generously treated.

WALLFLOWERS.—No mention of spring gardening plants would be complete without these fragrant subjects, delightful in beds alone in yellow or crimson shades, in the shrubbery or border, or in conjunction with other plants. Near the house, too, where their fragrance will assuredly be appreciated, a few plants should always be found, more particularly, perhaps, in those instances where a dry, narrow border exists and where so few plants thrive. In such a place the dryness of the situation is much to their liking, while the protection afforded will in all probability be responsible for an early display of blossoms. Occasionally in open beds the plants suffer from frost—more, perhaps, because of the alternating changes of frost and wet—hence they should be accorded as much shelter as circumstances permit.

ANEMONES AND RANUNCULUS.—Each of these in turn provides a rich harvest of flowers in springtime, while the first-named group is calculated to fill the amateur with delight. The tuberous-rooted Anemones exemplified in A. coronaria and A. hortensis, with their hosts of varieties, are unequalled for display work in their day, and by reason of their cheapness are worthy of being grown by all. In each case a word of warning may be needed. The tubers are small. But because of this they should not be thickly planted; 4 inches to 6 inches asunder will not be too much.

E. H. JENKINS.

BOOKS.

"Root and Stem Vegetables."* — This is the third book of the "Present-Day Gardening" series that is being published by Messrs. Jack, and, as the author is so well known in the vegetable world, it should prove of considerable value to those who grow vegetables under what may be termed ordinary conditions. We are pleased to note that the author has not indulged in those high flights of rhetoric that present-day writers of gardening books seem to think so essential, but has tried to impart sound cultural information in a plain, business-like manner. In a book of this size Peas, Beans and other vegetables that cannot fairly be classed as coming under the category of roots or stems have been wisely omitted, and the author is thus enabled to give comparatively full—though by no means so full, in some instances, as we should have liked to have seen—information about the many kinds dealt with. The sub-chapters dealing with Carrots, Onions and Potatoes, and the chapter on Mushrooms are about the best of a good whole, though in dealing with Potatoes we are surprised that Mr. Dean has not mentioned the desirability of procuring sets from a different locality, and preferably changing them from a northern to a more southern part of the country. Possibly the author, who has strong views of his own, does not place much faith in this phase of culture, but its value is generally recognised by Potato-growers. In writing about Chinese Artichokes the author wisely gives brief instructions for cooking, an important point if this delicious vegetable is to make the headway in our gardens that it deserves to do. We have heard so much during recent years about the extraordinary distances to which Onions ought to be thinned that the author's sensible remarks on this point are quite a pleasure to read. Make up your mind for what purpose the bulbs are required and thin accordingly is his motto; for large bulbs Mr. Dean considers 6 inches apart sufficient, and for those of smaller size 2 inches to 4 inches apart is ample. As indicative of the advance that has been made during recent years among vegetables, we quote the following sentence: "Fifty years ago Onions seldom exceeded 6oz. in weight, but now we see specimens of Ailsa Craig, Record and others which weigh 3lb. each, being handsome, well-matured bulbs." The book contains eight coloured plates, which have been prepared from colour photographs. With the exception of that portraying Parsnips and Beetroots these are good, though it would have been better to have used fresh Carrots and Onions instead of those which had apparently been lifted for some time.

"Daffodils."†—This is the title of No. 4 of the "Present-Day Gardening" series of books now being issued by Messrs. Jack under the editorship of Mr. R. Hooper Pearson, and into which the author has crowded a mass of useful and instructive information. Indeed, the book teems with interest throughout, though more particularly those chapters which treat of the "History," "Botany and Physiology," "The Daffodil in Books," "Raising New Varieties by Cross-breeding" and the like, the whole of these being treated in that masterly and attractive style which Mr. Jacob has made his own. In no instance is the reader likely to be wearied with unimportant matters, or those "dry-as-dust" details or technicalities which, while not assisting, only serve to burden and confuse the lay mind. Indeed, the reverend gentleman, revelling as he does in the history of this and other bulbous-rooted flowers, might have been pardoned had his "discourse" on either of the above exceeded the popular fifteen minutes' limit; but instead of this he prefers to leave off at a point where his readers will, we imagine, be found to be "hungering and thirsting" after more. We are pleased to note the well-merited tributes paid by the author in his introductory remarks to the late Peter Barr, who "in no figurative sense," it is stated, has "made the Daffodil," "travelled for it, worked for it, classified it, advertised it"; and to "George Herbert Engleheart," who is styled the "Father of the Modern Daffodil." Such names as these, indeed, are inseparable from the subject. From the practical standpoint, in the writer's opinion Chapter VII., which deals so fully, as well as so admirably, with the "Raising of New Varieties by Cross-breeding," is the most valuable the book contains, the concluding lists of "good seed-bearers," "shy-seeders" and "potent pollen-bearers" constituting, in conjunction with the list of high-class novelties given with their parentage on page 46, an invaluable guide to the student or beginner. I would fain, however, have found much more concerning the cultural side of the question, both indoors and out, and venture the hope, should a further edition be called for, that a chapter devoted to "Forcing the Daffodil" will be included. This, indeed, is a phase of the subject upon which reliable information is really desired, while its connection with "Present-Day Gardening"—to quote the dominating title of the series—cannot be gainsaid. I do not quite see "eye to eye" with the expressed opinions concerning "yellow stripe" as given on page 54, the reference to "weakening by over-division" more particularly. Were this a predisposing cause, the remedy is at hand at once, and *Punch's* advice of "Don't" may be kept in mind. That something might be said in favour of the "cold" theory I admit; indeed, I will go a step further—seeing that "yellow stripe" does not, in the writer's experience, occur in the forcing-house, where full supplies of moisture and warmth are afforded—and say that the rupture of sap-vessels by frost is the more likely cause, *i.e.*, if it be climatic at all. I would like to have added a word or two concerning "Basal Rot," page 53—of which the author admits his inability to say the cause—but a reviewer has not unlimited space. I congratulate the author upon the way he touches upon so many phases of this fascinating subject, and to which the copious index bears good testimony. The plates throughout the book, except one, are excellent, the exception being Plate VI., where, in addition to an obvious error, the artist has unnaturally posed the flowers. "The last shall be first, and the first last"; hence I refer now to the valuable preface by the Rev. W. Wilks, whose well-reasoned views—the outcome of a ripe experience—I cordially share.—E. H. JENKINS.

* "Root and Stem Vegetables," by Alexander Dean, V.M.H. Price 1s. 6d. net. Messrs. T. C. and E. C. Jack, 16, Henrietta Street, London, W.C., and Edinburgh.

† "Daffodils," by the Rev. J. Jacob, with a preface by the Rev. W. Wilks, M.A. Price 1s. 6d. net. Messrs. T. C. and E. C. Jack, 16, Henrietta Street, London, W.C., and Edinburgh.

NEW PLANTS.

CYPRIPEDIUM PRINCESS MAY.—A handsome variety shown by Messrs. Sander and Sons, St Albans. It is the result of a cross between the species C. niveum and the variety Helen II. The perianth has a groundwork of white, densely spotted pink. The flowers are rather large for a niveum cross.

Odontioda Bradshawiæ Westonbirt variety.—Shown by Lieut.-Col. Sir George Holford, K.C.V.O., Tetbury. This bigeneric hybrid is the result of a cross between Odontoglossum crispum var. Britannia and Cochlioda noezliana. It resembles the type Bradshawiæ, but shows a lighter colour in the perianth and appears to send up a stronger spike. Both of the above received first-class certificates.

An award of merit was given to each of the following:

Cypripedium Reginald Young.—Shown by H. Bromilow, Esq., Rainhill, Lancs. This is the result of a cross between C. elmireanum and C. Harefield Hall. It has a broad dorsal sepal heavily blotched with chocolate; the lip and petals are of a not unpleasing shade of brown.

Cypripedium Britannia.—Shown by Messrs. Sander and Sons. This variety has an exceptionally broad, overarching dorsal sepal. The groundwork of green is heavily blotched chocolate, and the outer half-inch margin is white. The lip is of a pale greenish brown.

Odontoglossum Circe.—Shown by Messrs. Charlesworth and Co., Hayward's Heath. This is a hybrid from O. Cervantesii and O. Pescatorei. It is one of the very few, if not the only, Cervantesii cross yet shown, and only one plant has been raised. A very pretty and interesting hybrid, but apparently rather weak in constitution. It resembles the former parent, but is obviously a hybrid.

Calanthe densiflora.—Shown by Sir Jeremiah Colman, Gatton Park, Surrey. The flowers are of a soft sulphur yellow of a very pleasing shade, and, as its name implies, the flowers are borne in a dense cluster upon the spike.

Croton Golden Ring Lynwood variety.—Best described, perhaps, as an improved highly coloured Golden Ring, whose inch-wide, spirally twisted leaves render the plant most attractive. In the small size as shown—the plants were from 15 inches to 18 inches in height—the variety should prove of much value for table decoration. Exhibited by Mr. A. E. Bainbridge, Newcastle-on-Tyne.

Nerine elegantissima Mansell's Seedling.—The predominating colour is rose, with that suggestion of cerise which renders such combinations so effective under artificial light. From Mr. F. Lilley, Guernsey.

Carnation Regina.—A further addition to the pink-flowered class, though from our point of view the thin petal texture of the variety will not prove a recommendation. The colour is pleasing. From Mr. C. Engelmann, Saffron Walden.

Chrysanthemum Mrs. G. C. Kelley.—An exhibition variety of enormous proportions; colour rosy amaranth, with silvery reverse to the petals.

Chrysanthemum J. H. Greswolde Williams.—A very handsome single-flowered variety of rich buttercup yellow colour.

Chrysanthemum Mrs. Sam Nash.—We have here what we regard as the ideal single-flowered Chrysanthemum, and which, in addition to its pleasing pink shade of colour, also embraces the form of the well-known Mary Anderson. This set of three came from Messrs. William Wells and Co., Limited, Merstham, Surrey.

Chrysanthemum Miss Mary Pope.—A charmingly free, graceful and pretty single pink-flowered variety excellent in every way.

Aster Novelty.—One of the A. ericoides class, the petals coloured a lilac shade and most effective. In common with all its tribe it is very graceful. This pair of novelties was shown by Mr. Frank Brazier, Caterham, Surrey.

Chrysanthemum Joan Edwards.—A single-flowered variety of reddish carmine hue, of that particular shade which is more frequent in the single-flowered Pyrethrum than in the section under notice. From Mr. P. Ladds, Swanley.

Chrysanthemum Mrs. Tresham Gilbey.—This, in our opinion, is one of the handsomest of the single yellow-flowered class yet raised. The colour is rich golden and very attractive. From Mr. T. Ward, Bishop's Stortford.

Chrysanthemum Hilda Blick.—A pure white decorative variety whose singular purity and beauty are wedded to considerable artistic merit. It is of medium size and graceful. From Mr. C. Blick, Hayes, Kent.

Nepenthes nobilis (N. sanguinea × N. Curtisii superba).—This splendid addition to a remarkable race produces pitchers varying from 12 inches to 15 inches in length, and embraces the chief characteristics of its parents, though the pitchers are less intensely coloured than in N. sanguinea. For the most part the handsome pitchers are green, flecked with red; internally they are more heavily blotched with the same colour. The lid is ovate and well raised; the finely ribbed collar, or peristome, at first nearly horizontal, is finally strongly recurved, of unusual breadth, and coloured crimson and greenish yellow. Bearing the impress of great freedom, the hybrid is destined, we think, to rank among the finest of its class. From Messrs. James Veitch and Sons, Limited, Chelsea.

The foregoing awards were made respectively by the Orchid and the Floral Committees at the Royal Horticultural Society's meeting held on October 25.

First-class certificates were awarded to the following Chrysanthemums when shown before the floral committee of the National Chrysanthemum Society at the Essex Hall, Strand, on the 24th ult.:

Evangeline.—Large white Japanese, with cream centre and long, broad, reflexed petals. Shown by Mr. W. A. Thorp, Worthing.

Framfield Bronze.—A pretty bronze reflexed decorative variety. Shown by Mr. N. Davis, Framfield.

Henry Poulton.—A long-petalled bright crimson Japanese, with buff reverse. Shown by Mr. N. Davis.

Joan Edwards.—A charming single variety, specially recommended for decorative purposes. From Mr. P. Ladds, Swanley.

Marie Loones.—A large rosy crimson Japanese variety, with buff reverse to the petals. Shown by Messrs. W. Wells and Co.

Mary Poulton.—A large silvery pink Japanese, the petals curling prettily at the tips. From Mr. N. Davis.

Mrs. F. C. Stoop.—A Japanese variety, cream, heavily suffused rose. Shown by Mr. N. Davis.

Mrs. Geo. Hartmann.—A large chestnut red Japanese, with bright buff reverse to the petals. Shown by Mr. W. Jinks.

Mrs. G. C. Kelley.—Large incurved Japanese of rosy amaranth colouring, the petals having a silvery reverse. From Messrs. W. Wells and Co.

Mrs. Tresham Gilbey.—A rich yellow sport from Bronze Pagram, of which it is a counterpart except in colour. Shown by Mr. T. Ward, Bishop's Stortford.

Mrs. W. G. Patching.—A bright golden bronze flower somewhat resembling Bronze Pagram. Shown by Messrs. Cragg, Harrison and Cragg, Heston, Hounslow.

Red Chief.—Chestnut red Japanese, with buff reverse, the flowers being deep and of good substance. From Mr. M. Silsbury, Shanklin.

Wells' White.—Large pure white Japanese, with long, narrow, recurving petals. From Messrs. W. Wells and Co.

THE EDITOR'S TABLE.

A Single Dahlia from Italy.

Comte F. Lurani, Cernusco, Lombardone, Como, Italy, sends us flowers of a single white Dahlia which, although too flimsy for exhibition purposes, would no doubt be a useful variety for the garden. In an accompanying letter Comte Lurani mentions that it is a very charming Dahlia for indoor decorations.

Primulas from Scotland.

From Dr. McWatt, Morelands, Duns, N.B., we have received a box of well-grown Primulas in full flower. We do not remember ever having seen Primula japonica with flower-stems so robust as these. The inflorescences are noteworthy not only for their vigorous growth, but for the diversity of colour shown in the flowers. One variety we note has flowers resembling in colour the well-known Duchess of the sinensis type; others are in varying shades of soft pink and bright carmine red.

Dahlia Merckii from Highclere.

Miss M. Birch-Reynardson, Pitt House, Highclere, sends flowers of this dainty single Dahlia, which is sometimes called D. glabrata. Most of the blossoms sent are deep lilac in colour, but they vary at times to almost white. Miss Birch-Reynardson writes: "I am sending a few blossoms of Dahlia glabrata for the Editor's Table. As few people seem to know the plant, it may be of interest. If sown in January or February it flowers in August or September. The blossoms last well in water and are very freely produced. Two small blossoms of Bidens atrosanguineum, or the so-called Black Dahlia, are also sent."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Perennials for summer flowering (*Melsetter, Orkney*).—As you appear to prefer crimson and blue more particularly, we think you cannot do better than plant freely of single and double flowered Pyrethrums in crimson, red and scarlet shades, Pæonies of like tone, Pentstemon Crimson Gem, P. barbatus coccinea, Papaver orientale of brilliant colours, Lilium chalcedonicum (scarlet), Helenium Riverton Gem, and a set of the new crimson-flowered Saxifrages, as, *e.g.*, Red Admiral, Bakeri, H. S. Stokes and R. W. Hosier. The above are all of red or bright colours, and should assist matters materially if planted in free groups. For blue-flowered plants you cannot do better than select such as Anchusa italica Dropmore variety, A. i. Opal, Delphinium King of Delphiniums and many others, blue-flowering Squills, Aster acris, A. Amellus in variety, A. Ariadne, A. Novi-Belgii densus, A. Robert Parker and A. Climax, all of which are in shades of blue or violet. Aconitum Wilsonii and A. Fischeri are both of deep violet-blue colour, while excellent shades of violet and allied colours are seen in the Phloxes Lord Rayleigh, Le Mahdi, Iris and Eugene Danzanvilliers, the same group also supplying in Etna, Coquelicot, Flambeau and others some of the richest of scarlet shades, always the more effective when planted a dozen or more of a sort.

Plants for border (*J. B. Rowell*).—The following plants will be most suitable for the border, and we would suggest that if three of each subject to form a group were planted, a better effect would be secured. The front may be of Campanula pumila, C. muralis, C. turbinata, Aubrietias in variety, Gentiana acaulis, Iris pumila, Phlox Nelsonii, P. atropurpurea, Achillea tomentosa, Hepaticas of sorts, Iberis sempervirens, I. corræfolia, I. superba, Arnebia echioides, Pinks, Campanula Hillside Gem, C. Hendersonii and others. Those named are under 12 inches high. In the second line of groups Gaillardias, Campanula glomerata speciosa, C. Moerheimii, Achillea alpina, Lychnis Viscaria fl.-pl., Aster subcæruleus, Geum montanum, Armeria Cephalotes, Old Clove Carnations, Pentstemon Newbury Gem, Megasea cordifolia purpurea, M. ligulata speciosa, Zauschneria, Helenium pumilum, Geum coccineum fl.-pl., single and double flowered Pyrethrums, Pæonia officinalis fl.-pl., Thalictrum adiantifolium, Rudbeckia Newmanii, Spiræa Filipendula plena, Sedum spectabile atropurpureum, Aster lævigatus, Primula cashmeriana, P. japonica, Trollius, hybrid Columbines, Monarda didyma, Flag Irises of sorts, Heuchera sanguinea and others should be found, the back line of the group being composed of Lupines, herbaceous Phloxes, Lilium candidum, white perennial Pea, Campanula persicifolia and C. grandis, Pæonias of sorts, Pentstemon barbatus, Iris aurea, I. ochroleuca, I. Monnieri, perennial Sunflowers, Delphiniums of sorts, Echinacea purpurea, Eryngiums and other showy plants. We think you had better let some hardy plant nurseryman see the rockery when completed, as upon its formation much will depend. Any selection of plants we now give might be of little use. Suitable plants for the bank that lie close to the soil are Aubrietias. Others of service are Antennaria candida, Veronica prostrata, alpine Phloxes in variety, Achillea tomentosa, Thymus lanuginosa and T. Serpyllum coccineum. There are numbers of other plants of a few inches high. Some Roses with large and full flowers are Caroline Testout, Mrs. J. Laing, Frau Karl Druschki, Horace Vernet, Hugh Dickson, Captain Hayward and La France. The

fence might be covered with Ivy, Climbing Rose Aimée Vibert or Ceanothus.

Plants for windswept seaside garden (*Amateur*).—From your letter the plants which succeed ordinarily in seaside gardens would be of little use, unless by any chance the planting of protective evergreen shrubs frequently throughout the border would assist. Of shrubs that would do duty and be of good service in such a case are the Hydrangeas, Euonymus, Choisya ternata and Weigela, while the Colletia, provided room existed for it, would form an almost impenetrable bush capable of withstanding any strong wind. If with some of these you could form sheltering bays on the windward side, you might, by planting the intervening spaces with groups of plants, enjoy many things which are now laid low or bare of their leafage. Shelters somewhat on the lines we have described appear almost an essential in the case. Unfortunately, you do not state the size either of the garden or of the border, and we are at a loss to know what room really exists for the kind of planting we suggest. The Myrtle is a good flowering shrub suitable for seaside gardens, and used in the way we suggest would play the double part of protector and flowering shrub, while Holly, Yew and many conifers, Junipers in particular, would be equally helpful. Another excellent plant would be Rosa rugosa, this plant also combining ornamental qualities with density and vigour capable of much endurance. Some good perennials, however, are Pæonia tenuifolia, P. officinalis in variety, P. lobata, Iris pumila, I. germanica of sorts, Inula glandulosa, I. hirta, Campanula glomerata speciosa, C. persicifolia plena, C. Moerheimii, Monarda didyma, Arnebia echioides, Aster Amellus, Megasea cordifolia purpurea, M. ligulata speciosa (two very fine plants indeed), Gentiana acaulis, Crinum Powellii, Colchicum speciosum, Belladonna Lilies, Anemone blanda, A. b. sythinica, Achillea The Pearl, Rudbeckia Newmanii, Campanula muralis, Cineraria maritima, Armerias of sorts and others. Aubrietias, Achillea Clavennæ, A. umbellata and other dwarf kinds would also prove of service. Of annuals, Linum coccineum, Eschscholtzias, Dimorphotheca aurantiaca, Chrysanthemum coronarium in variety, Godetias and Snapdragon should be tried.

TREES AND SHRUBS.

To burn out the stump of a tree (*T. B.*).—Tree butts may be burnt out by boring holes 1 inch in diameter right to the centre and filling them with saltpetre and paraffin, afterwards corking them up and leaving them to soak for three or four months; then removing the corks, filling the holes with paraffin and applying a light. They burn, however, very slowly, and the method is not altogether a satisfactory one. It is really much better to grub out the stumps, dry them well and burn with ordinary garden refuse, prunings, &c. The extracted butts may often be put to good use in the garden, however. Placed in a shady position and covered with Ivy they are effective, while several formed into a kind of terrace make a nice position for a group of rambling Roses.

Is Ampelopsis injurious to buildings? (*E. M. M.*).—Ampelopsis species are not likely to do any harm to the walls of your house, that is, the self-clinging kinds; harm, however, occurs when the branches are allowed to ascend beyond the gutters, for then they get under the slates, and in time do serious injury to the roof. This can be prevented by going over the plants twice during the summer and cutting the shoots back well below the gutter. A certain amount of harm is done by the use of kinds which do not cling naturally, and have to be supported by nails driven into the stonework. It is a mistake to let climbers become too rampant on a fine building, as the stonework should be exposed to view in many places.

Planting a deep dell (*Highlander*).—The shady side of your dell may be planted with autumn-flowering Gorse, Ulex Gallii, Hypericum calycinum, H. Androsæmum, red, white and purple forms of Erica cinerea, E. maweana, Dabœcia polifolia, and various white and red forms of Calluna vulgaris. Here and there, among crevices of stone, conifers such as Douglas Fir, Abies nobilis, Cedrus atlantica glauca, &c., could be introduced. A few bright fruiting shrubs, such as Cotoneaster Simonsii, C. horizontalis, C. microphylla, C. buxifolia and C. rotundifolia, with Penzance Briars, Rosa rugosa, R. canina, Euonymus europæus, Viburnum Lantana, V. Opulus and other similar subjects might be introduced with advantage. In the moist places near the water, Ferns in variety, Senecio Clivorum, S. veitchianum, Astilbe chinensis var. Henryii, Salix vitellina (red and yellow stemmed forms), Cornus alba, Lythrum Salicaria and Primula japonica would thrive. For the opposite side you could rely on double flowered Gorse, Helianthemums in variety, Ulex Gallii, Saxifrages and the hardier Cistuses, such as C. laurifolius and C. recognitus. On both sides dwarf-growing Rhododendrons might be planted with advantage, while spring subjects, such as Aubrietias and Iberis semperviren's, may be planted in little pockets here and there, and their branches will grow downwards and hang in long festoons about the rocks.

THE GREENHOUSE.

Name and information about Abutilon (*Young Gardener*).—The name of the specimen sent is Abutilon vexillarium variegatum. As you wish to know a few facts concerning it, we may say that the green-leaved form, Abutilon vexillarium, itself is a native of Brazil, and was first introduced into this country in 1864. In its early days it was grown as a stove plant, but it was eventually found that this Abutilon did much better under cooler treatment. Then it was, and still is, often used as a climber in the greenhouse, and ultimately at Kew it was tried against a hot-house wall out of doors, where it flourished exceedingly and gained many admirers. A coloured plate of it, prepared from the plant growing at Kew, was given in THE GARDEN as long ago as 1890. It is only in the milder parts of England that it will succeed out of doors. Within the last few years Abutilon vexillarium, or, rather, its variegated variety, which is of garden origin, has been employed for bedding-out during the summer. It is for this purpose often grown as standards, and in the large beds of miscellaneous subjects, which are now so popular, well-flowered examples make a goodly show. It is also known as Abutilon megapotamicum. Cuttings are not at all difficult to strike if formed of young shoots of medium vigour, taken in the spring or early summer, put into pots of sandy soil and placed in a close frame afterwards; indeed, they should be given much the same treatment as Fuchsia cuttings.

Oncidium with large flower-spike (*J. H. S.*). The fact that your plant of Oncidium leucochilum has pushed up a spike to a height of 8 feet 6 inches is by no means uncommon, but the number of blooms on the one spike is decidedly unusual. That such results were obtained from a plant in a 5-inch pot conclusively shows that the requirements of this Orchid have been thoroughly understood. It is, indeed, a result of which you may well feel more than satisfied.

Treatment for Asparagus plumosus (*H. A. H.*). In order to have the Asparagus plants sufficiently large for decorative purposes next year they should be at once potted off in a mixture of loam, peat or leaf-mould and sand, and grown throughout the winter in a structure kept at a temperature of 50° to 60°. As you have no heated house, the only thing that you can do is to allow them to remain in boxes till the spring and then pot them off singly. They must in the winter be kept quite safe from frost, and given enough water to keep the soil fairly moist.

Names of and information about plants (*Sussex*).—1. Perilla nankinensis.—This is increased by means of seeds, which can be obtained at a cheap rate. They should be sown in gentle heat in March, potted singly when large enough, and thoroughly hardened off before bedding-out. 2. Gesnera (Naegelia) zebrina.—This is a native of Brazil, and consequently requires the temperature of a stove or intermediate house. The usual season of flowering is during the autumn months, at which time it forms a very bright and attractive feature. Some time after flowering the plant goes to rest, and when this happens water must be gradually diminished; when quite dormant the soil should be kept fairly dry, but not absolutely parched up. Then, in spring the rhizomes should be shaken clear of the old soil and repotted, using for the purpose a compost rich in vegetable matter. A mixture of one-half to two-thirds good leaf-mould and the remaining portion loam will, with the addition of a liberal sprinkling of sand, form a very suitable compost. It must not in potting be pressed down too firmly. A good plan is to use fairly small pots at first, shifting the plants as they grow into larger ones. They must then be placed in the stove or intermediate house, giving them at first but little water. As the plants grow, the water, of course, must be increased. When growing freely they need a liberal amount, combined with good drainage. Throughout the summer the plants should be shaded from the sun, and care must be taken in syringing to use only the clearest of water, otherwise the handsome foliage may be discoloured. 3. Cineraria maritima candidissima.—Good plants for bedding can be obtained from seed sown in August, and grown on cool and safe from frost till the following spring. It is not even now too late to sow. Besides this, cuttings of the sturdy, short-jointed shoots will strike if potted firmly into sandy soil and placed in a cold frame. Good cuttings are, however, not readily obtainable. Seed may also be sown in gentle heat in early spring, but the plants so obtained are not equal to the August-sown ones at bedding-out-time, though they soon grow away afterwards.

Lilium longiflorum (*Dahlia*).—In the situation and circumstances to which you refer, the bulbs may be left out all the winter, affording them a mulch of light litter. Whether the bulbs will ever reach a size again suitable for forcing will depend upon many things. In certain circumstances there is a great tendency to perpetual growth, and particularly so in the case of the variety eximium among others, and the new growth being cut down by frost weakens the bulbs and prevents their flowering. If yours is the typical form, the growth is less perpetual, which is in its favour. Those which did not flower may have been diseased, and such as these will most likely perish outright.

KITCHEN GARDEN.

Asparagus beds not doing well (*L. C. A. H.*).—The best time to plant Asparagus beds is about the end of March. Trench the ground 2½ feet to 3 feet deep. The bed should be 5 feet wide. This will hold three rows, one in the middle and one on either side 15 inches distant from the middle row. The plants in the row should also be 15 inches apart. In trenching the land for such beds you should add at least a barrow-load of rich, well-rotted manure to each yard run of bed. Plant the roots in the bed on the surface level, well pressing them into the soil, and cover over with 4 inches of soil from the side of the bed, first breaking up the soil into a friable condition before applying over the roots. The soil taken from the side of the bed will leave an alley 8 inches deep on either side; this will help to drain the beds and keep the roots healthier during the winter.

Carrots splitting (*E. L. B.*).—Carrots often split when they have been allowed to remain in the soil after their growth is finished and rain comes and causes the sudden absorption of water beyond what they can keep pace with in growth. Early Carrots should not be left in the ground too long.

Tomatoes going wrong (*G. S. W.*).—We do not find any disease on the Tomatoes sent; but they appear to have been fed rather too liberally and to lack potash. This may be applied with the water used about once a week at the rate of 1½oz. sulphate of potash to one gallon of water.

Potatoes for inspection (*G. H. M.*).—The pest attacking the Potato is the millipede Julus pulchellus, often a very serious pest of vegetable crops. Thorough cultivation is perhaps the best means of checking them. Trapping with pieces of Mangold may be tried with advantage, or baits of Cabbage leaves soaked with Paris-green placed here and there in the garden will lessen their numbers.

Celery and Celeriac diseased (*G. E.*).—The Celery and Celeriac are both attacked by a fungus, which is causing the brown spots to appear upon the foliage. The fungus is a species of Phyllisticta, and the best thing to do will be to spray the plants with Bordeaux mixture, commencing at once, so as to check the spread of the fungus as far as possible. It may be necessary to spray them again after an interval.

Swedes attacked by insects (*H. G. B.*).—The little white insects are springtails. It is doubtful whether they are the first cause of the trouble with the Swedes, but they may be kept in check by the addition of lime and soot to the soil. The Swedes are attacked by club-root, and this is probably the most important cause of the trouble. This disease has been referred to in these "Answers to Correspondents" frequently recently.

Carrots for inspection (*Dahlia*). — The Carrots are attacked by the Carrot fly. This may be practically exterminated from a garden if all the plants which show a premature colouring of the foliage are pulled up and burnt at once all through a season, though this will not prevent the flies from coming from other gardens near. Burying the surface soil in which the Carrot fly pupates during the winter is a useful measure also. Some sand which has been damped with paraffin at the rate of about four quarts to 1cwt., sprinkled along the rows, especially immediately after thinning, aids in keeping the flies from laying their eggs.

Carrots diseased (*F. A. B.*).—The Carrots have been attacked by the Carrot fly. You will find the grubs inside the affected roots. It would be well to give the soil a dressing of lime. Dust some sand which has been moistened with paraffin along the rows. This should keep the fly away. Take care that holes are not left when thinning, and plant on soil as far away from where the damaged Carrots have been as possible. Onions are subject to the attack of a somewhat similar pest—the Onion fly. Autumn-sown Onions usually suffer least, and dusting with soot and lime is of some assistance in keeping away the fly.

THE GARDEN.

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CONTENTS

THE QUEEN OF AUTUMN 557
The London County Council parks.. .. 557
NOTES OF THE WEEK
Forthcoming events 558
CORRESPONDENCE
Autumn colour in the garden 559
Silver-leaf in fruit trees 559
Autumn in the Western Highlands 559
GARDENING OF THE WEEK
For the South and South Midlands.. 559
For the North and North Midlands.. 559
FRUIT GARDEN
Fruit notes 560
KITCHEN GARDEN
A little-known Potato disease .. 560
Preserved vegetables 560
GREENHOUSE
Winter - flowering Begonias and their culture 561
A good window Fern 561
ROSE GARDEN
New Roses of the year 562
ROSE GARDEN
The Rose pergola at Stratfieldsaye Rectory 562
Rose Dorothy Perkins 562
FLOWER GARDEN
A rare Bellflower .. 562
A little-known rock plant 562
TREES AND SHRUBS
Hardy Azaleas for present planting.. 563
GARDENING FOR BEGINNERS
Garden work week by week 564
Planting evergreen shrubs 564
The use of sand .. 565
THE TOWN GARDEN.. 565
NURSERY NOTES
Messrs. Pennell and Sons 566
Editor's Table 566
ANSWERS TO CORRESPONDENTS
Flower garden .. 566
Trees and shrubs .. 567
Greenhouse 567
Fruit garden 567
Miscellaneous .. 567
SOCIETIES 567

ILLUSTRATIONS.

Potatoes affected by Rhizoctonia Solani.. 560
The Soft Shield Fern 561
Rose Dorothy Perkins in a Surrey Garden 561
A Rose pergola in the Rev. F. Page-Roberts' garden 562
Campanula lanata in the rock garden at Kew .. 563
How to plant evergreen shrubs.. .. .. .. 564, 565

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C*

THE QUEEN OF AUTUMN

NOTWITHSTANDING the fact that the list of flowers available for greenhouse and indoor decoration generally has been considerably augmented during recent years, the Chrysanthemum can still lay fair claim to the title of Autumn Queen. Without the many beautiful types and varieties that are now so extensively cultivated by both private and market growers, our gardens and indoor departments would be comparatively bare of floral beauty during those dull weeks which so unmistakably herald the approach of winter, and even well into the New Year we are glad to supplement the Begonias, Roman Hyacinths and Paperwhite Narcissi with the later varieties of the Chrysanthemum.

As in many other branches of floriculture, a great change has occurred in the public taste for Chrysanthemums during recent years. There is no disguising the fact that the large specimen blooms of both Japanese and incurved types have for some time been in disfavour, but signs are not wanting that they are likely to regain some, at least, of their erstwhile popularity. In the past growers were prone to sacrifice everything for mere size, and this, together with the paucity of what may be termed really good colours, were, no doubt, the chief factors in bringing the large blooms into disfavour. Happily, raisers have set themselves the task of bringing into being flowers of refinement and good, clear colours, bright crimson and yellow in particular having received attention. The result is that many of the large flowers which have been shown in various parts of the country during the last week or two, and particularly at the National Chrysanthemum Society's exhibition at the Crystal Palace last week, have been rich-coloured examples of considerable refinement.

We have become quite accustomed to the remark that these large blooms are practically useless except for the showboard, and, to some extent, this is, of course, correct. For small schemes of indoor decoration they are much too heavy; but where the decorations are on a large scale and a bold effect is desired, the arranging of a number of these big flowers of one colour in a large art vase provides a picture that is artistic enough for the most fastidious tastes. We do not think that the large flowers are ever likely to oust the smaller decorative varieties from the high position they rightly occupy in our gardens; but it may be taken as a sign of the times that the large bloom classes at the "National" show were better contested this year than they have been for some years past, and this has also been the general rule at most of the big local shows.

Unfortunately, the National Chrysanthemum Society, which has been established over sixty years, has for some time past been under a shadow; but, thanks to the energetic manner in which the executive committee faced the situation, it is once more on the up grade, news that will be welcome to all who appreciate the Chrysanthemum in its many aspects. By broadening its policy and encouraging the development of all sections of the flower in whose interest it exists, the society, whose secretary is Mr. R. A. Witty, 72, Savernake Road, Gospel Oak, London, N.W., has done a wise thing, and no matter whether a new variety belongs to the tiny Pompon, market single, Anemone or large-flowered sections, it receives the same consideration from the floral committee, who meet at regular intervals from September till late in December, and whose difficult task it is to decide whether a new variety is really an advance, from one or more standpoints, on others of its class which are already in existence. By arranging classes for all sections, and thus bringing the Chrysanthemum in all its variations before the public, the society is doing good work, and should be supported by all who appreciate the Queen of Autumn.

THE LONDON COUNTY COUNCIL PARKS.

FOR the second time in the course of about twelve months the horticultural profession has received a severe blow by the appointment of a military officer to the important post of Chief of the Parks under the control of the London County Council. We use the word "important" in the sense that it applies to the gardening side of the question, for, beautiful as many of the parks in question undoubtedly are, there are many of them which might be very considerably improved at little or no expense to the ratepayers, providing a capable man were placed at the head of affairs. The argument put forward by some of the Councillors who supported the appointment, that a head of a department

and not a gardener was required, is absurd in the extreme. If this were so, we should expect to find the many large and beautiful private gardens in the country, where large staffs are kept, under the control of a military officer who did not profess to know anything about horticulture. Discipline is all very well in a way, but we cannot imagine any large business firm appointing as head of the whole business a man who knew nothing whatever about it. Such an action would soon result in bankruptcy. The ratepayers of London are now called upon to pay £700 a year to an officer who, on the admission of those who supported his appointment, knows practically nothing about gardening.

Gardeners as a whole are hard-working, intelligent, and many of them well-educated men, and it is exceedingly discouraging to them to find that when so important a post has to be filled their work is entirely ignored and an outsider is placed in command. Happily, other large cities, such as Edinburgh, Glasgow and Birmingham, are represented by Councillors who believe that a man who holds the important position of head of their parks shall have that thorough knowledge of gardening which will enable him to advise and assist those under him, instead of, as must necessarily be the case in London, the Chief having to rely on his assistants for information and guidance on the many important gardening tasks that will from time to time require attention. Such a position must be humiliating to the Chief, and will not conduce to that discipline that is evidently so dear to the hearts of the majority of the members of the Council.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 15.—Lincoln Autumn Show (two days). York Chrysanthemum Show (three days). West of England Chrysanthemum Show (two days).

November 16.—Scottish Horticultural Association's Chrysanthemum Show (four days).

November 17.—Windsor Chrysanthemum Show. Barnsley Chrysanthemum Show. Aylesbury Show.

November 18.—Bolton Horticultural Society's Show (two days). Rochdale Chrysanthemum Show (two days).

November 19.—Morley and District Paxton Society's Show.

Accident to Mr. E. H. Wilson.—We regret to hear that this well-known plant-collector met with an accident while on an expedition in Western China. Mr. Wilson was returning from a very successful trip to Sung P'an, and while travelling down a highway was suddenly overtaken by a landslip and struck by a falling boulder. The accident, which resulted in a broken leg, occurred three days' journey from Chentu, where medical aid was obtained. We are glad to note that Mr. Wilson is making satisfactory progress towards recovery. This is by no means the first visit he has made to China, and the plants collected by him during his travels there are only too well known to horticulturists in this country. The unfortunate accident affords a further instance of the perils of the plant-collector.

The Gardeners' Royal Benevolent Institution.—Mr. G. J. Ingram, secretary of this institution, informs us that the offices have been removed to 92, Victoria Street, London, S.W. All communications should in future be sent there.

National Fruit and Cider Institute.—Sir Edward Strachey, Parliamentary Secretary to the Board of Agriculture and Fisheries, has been placed on the managing committee of the National Fruit and Cider Institute.

National Hardy Plant Society.—The first general meeting of this society was held at the Hotel Windsor on Thursday, November 3, Mr. A. J. Macself in the chair. The chairman presented the report of the provisional committee appointed at Shrewsbury, which dealt with the Edinburgh meeting, and submitted draft rules and bye-laws which the secretary had prepared and which were recommended by the committee for adoption. After several minor amendments, on the motion of Mr. Collingridge, seconded by Mr. Went, the rules and bye-laws were adopted. The following officers were then elected: Chairman of council, Mr. A. J. Macself; vice-chairman, Mr. Went; treasurer, Mr. Brunton; secretary, Mr. F. Bouskell. A representative council of forty-eight was then elected. An invitation was received from Sir Frank Crisp for the society to visit Friar Court during next summer. The invitation was accepted, and a hearty vote of thanks accorded to Sir Frank Crisp for his kindness. The secretary announced that the Earl of Onslow, K.C.M.G., and Mr. Collingridge had accepted office as vice-presidents. It was desired that members should bring the objects of the society before their friends. The secretary's address is Market Bosworth, Nuneaton. It was resolved that a vote of thanks be accorded to the officers and provisional committee for their preliminary work in connection with the formation of the society.

Glasgow and West of Scotland Horticultural Society.—The annual general meeting of this society was held in the Religious Association Rooms, Glasgow, on the evening of November 2. In the absence of the president, Colonel R. E. S. Harington-Stuart of Torrance, Mr. Thomas Dagg, of Messrs. Austin and M'Aslan, nurserymen and seedsmen, occupied the chair. The annual report was submitted by Mr. Mackie, C.A., the secretary and treasurer, and was of a most satisfactory nature, the financial results being the best realised for a long time. The report was approved of and office-bearers elected. The show for 1911 was fixed to take place on the first Wednesday and Thursday of September.

An East London Chrysanthemum show.—Notwithstanding the many natural disadvantages under which it has to carry out its work, the Forest Gate and Stratford Chrysanthemum and Horticultural Society got together an excellent exhibition last week in the Town Hall, Stratford. In the absence of the Marchioness of Blandford the show was opened by Her Grace the Duchess of Marlborough. The quality of the flowers throughout was exceptionally good, most of the centres being well filled and the blossoms clear and bright. The silver cup offered by the Duchess of Marlborough was won by Mr. W. J. Stride, Forest Gate, who staged a beautiful group of plants. The Barrie and Brown Cup was won by Mr. T. Smith, Leytonstone, who also had the best Japanese bloom in the amateurs' section, this being a remarkably deep and well-finished flower of Lady Talbot. The best incurved flower in this section was the old C. H. Curtis, shown by Mr. J. Tyler of Forest Gate. It was not a large bloom, but was of perfect shape, refined and well coloured. In the novices' section the best incurved was Romance, shown by Mr. W. Everitt, Stratford; and Mr. S. T. Fenn of Forest Gate had the best Japanese, this being a flower of the old white favourite Miss Alice Byron. An excellent group of plants was shown by the West Ham Corporation under the supervision of Mr. J. Sheppard. The balance in hand each year is sent to the West Ham Hospital, and since the society started it has contributed no less than £252 4s. 2d. to the funds of that institution.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Raising up the soil of flower-beds.—The articles on "The Town Garden" which appear week by week in THE GARDEN might with advantage be read by others than amateurs or dwellers in towns. In the issue for October 29 Mr. Jenkins points out the evil effects of raising the soil of flower-beds far above the surrounding ground, which not only causes the soil to wash down on to the grass or walk, but absolutely starves the plants. This practice seems to me greatly on the increase, not only in the case of the owners of small gardens, but even in our public parks and large establishments. Last spring in a well-known London park I carefully observed a large bed of Wallflowers, which when planted were good, sturdy specimens that promised a fine display of bloom. The soil was so heaped up that the lowermost roots of the plants, at least towards the centre and highest portion of the bed, were above the level of the surrounding grass. The result was starvation and a most unsatisfactory display of bloom. Again, late in the summer in a provincial park I saw a border of shrubs which had been planted in the spring, and were at the time of my visit in a poor plight. The border sloped greatly from the back to the front, where there was a drop of 6 inches to the path, which thus acted as an open drain and carried off every drop of water, for the want of which the plants were absolutely perishing, and that despite the fact that artificial watering was freely resorted to. Again, an instance came under my notice of that beautiful and moisture-loving conifer, Sciadopitys verticillata, which had been purchased at a good price and planted as described. It quickly fell into ill-health, whereas, if it had been planted in a saucer-shaped depression instead of on the top of a mound, in all probability it would have continued to flourish. From the numerous instances that have come under my notice it seems to me that the advice of Mr. Jenkins might be well extended to cover all classes.—H. P.

Nepeta Mussinii.—I see there are queries in THE GARDEN about Nepeta Mussinii. My experience with it here is that it will flourish almost anywhere except in shade, and it will not stand damp or overcrowling. In such situations it develops into a straggling and uninteresting plant. It is of little value in a herbaceous border. In such a place I lose all admiration for it; but give it room and plenty of sunshine, then no words of praise are too high. Spring-divided plants I find do the best. Some of these were used as an undergrowth to a border of Rose Zepherine Drouhin—in a deep loam—and by June they had covered the ground. They have bloomed all the summer, and Nepeta means yet to say farewell to the Roses. Other plants are doing well on a sandy bank with a southern aspect, and others, again, thrive on the top of a wall at an exposed and windy corner. No especial soil is given to this Catmint, but our light and limeless loam on a gravelly subsoil suits it admirably.—E. M. WHITEHEAD, *Abergavenny*.

Autumn colour in the garden.—Of the numerous trees and shrubs named by your correspondent "W. D." in your issue of October 29, I find no mention made of Liquidambar styraciflua. This I consider one of the most beautiful-coloured foliage trees; certainly the best we have here. Perhaps the cause of it not being more often met with is its failure to colour properly. Position has, I think, something to do with this. We have several trees in different positions, soil much the same, medium loam, but only one that colours perfectly. This is about 20 feet high, is planted on the side of a bank (rather a dry position) facing south to south-east and well sheltered on the north and west, and forms a very striking tree in the autumn of every year. In the spring also, when the leaves are unfolding after a shower, the air near by is very refreshing owing to the odour given off. I am sending you a few small branches with leaves.—A. J. HAWKES, *Hall Place Gardens, Tonbridge, Kent.*

Silver-leaf in fruit trees.—I have read with interest your article on the silver-leaf disease of Plums and stone fruit. For some time I have had experience of this in Peaches. When first the trees became affected the diseased parts were cut away, and although the following year the trees developed and matured their leaves in an apparently healthy state, they soon began to curl at the edges and became whitish and silvery, afterwards having a decayed, withered look, and the branches became dry and sapless. I am satisfied the cause is not in the roots, as, in order to trace the cause of the disease, the trees destroyed were split down from the top to the roots, and the disease was in all cases found to be in the upper part of the main stem, working downwards. One tree affected certainly affects the adjoining ones. I have had three sets of two trees adjoining grown in different parts of my Peach-house all affected, and had to be destroyed in consequence of their closeness. My house is a good one, well ventilated, of south aspect, and the soil is sweet and good.—THOS. P. RICHARDS, *Maes-yr-Haf.*

Autumn in the Western Highlands.—I read with great interest the article in THE GARDEN for October 29 on "Autumn Colour in the Garden." I think, nevertheless, that no garden scene, however beautiful, can compare with the natural, savage, awe-inspiring scenery of our Scottish Highlands during the past week. Climbing Duntorvil this afternoon (October 31) I was enchanted with the surpassing grandeur of the scene before me when I reached the summit. At my feet lay Loch Fyne as calm as a mill-pond, bounded on both sides by hills towering upwards until they appeared to touch the sky. As far as the eye scanned was to be seen Nature clothed in her autumn garb of rosy hues and golden tints. Mountain and loch, river and valley, and the golden sun setting on an autumn evening all went to make a scene the like of which I had never seen before, and having once seen can never forget. The season has been one of extreme mildness for this part of the country, and consequently the leaves have held on the trees much longer than usual, and have attained to a much better golden colour. Wild flowers are still blooming in great profusion, and during my walk I found several Primroses in full bloom on the open moor, also several blooms of Parnassia palustris, which is generally out of bloom by the end of September at the latest. Bell Heather was blooming in great abundance, the flowers as large and fresh as those to be seen in the month of August. Other flowers which I noticed still in bloom were Lychnis diurna, L. Flos-cuculi, Geranium dissectum, Ajuga reptans, Ranunculus acris and Scabiosa succisa.—HUGH MCMULLAN, *Castle Gardens, Inveraray, N.B.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

FLOWERS FOR CHRISTMAS.—There is always a great demand for flowers for decorative purposes at Christmas, white being the most sought after. Among Chrysanthemums a few of the best are Mrs. J. Thompson, Niveus, Queen of the Exe, Winter Queen, Winter Cheer, Yellow Thompson, Tuxedo, Princess Victoria, Framfield Pink and A. J. Balfour. Cyclamen, Primulas, Begonia Gloire de Lorraine and Carnations are also available. Apart from all these we have the Roman Hyacinths, Paper-white Narcissi and Duc Van Thol Tulips, all of which should now be introduced into a warmer temperature. Retarded Lilac and Lily of the Valley should be procured and potted at once. These may be had in flower in four weeks from the commencement of forcing. Retarded Liliums which were potted in September may now be placed in a warm greenhouse, and if necessary a higher temperature may be given after a week or ten days.

Sweet Peas.—These are very useful for conservatory decoration when grown in pots, and to provide an early batch seeds should be sown now. About four seeds may be sown in a 3-inch pot and placed in a cool greenhouse to germinate. As soon as the seedlings appear place them on a shelf as near the glass as possible, and keep them growing steadily. When sufficiently rooted they may be potted on into 9-inch pots, in which they are to flower. The shoots will require supporting till the permanent sticks are placed in position.

FRUITS UNDER GLASS.

Pot Strawberries.—Sufficient plants should be placed in cold frames to provide the first two batches for early forcing, and the remainder will be best plunged. In plunging the best material to use is ashes, well working it in between the pots and covering the rims. If the tops of the pots are left exposed, the frost will crack them. In forcing Strawberries a low temperature must be maintained at the commencement, 45° to 50° Fahr. being ample for the first two or three weeks.

Cucumbers.—These will require very careful attention at this season to keep them in a healthy condition. The syringing, damping and watering must be, to a great extent, governed by the conditions of the weather outside. Top-dressing, whenever necessary, should be afforded and a night temperature of 70° Fahr. maintained.

TREES AND SHRUBS.

Planting should proceed without delay. All deciduous trees and flowering shrubs are best planted before Christmas. The advantage of autumn planting over that of spring lies in the fact that the trees start rooting and become to some extent established before the drying winds of March appear, thus preventing a great deal of labour in watering. In making new shrubbery borders the ground should be thoroughly trenched beforehand. When planting specimen trees or groups of flowering shrubs in lawns, the holes should be taken out large enough to allow the roots plenty of broken soil in which to make a start. Liriodendron tulipifera, Copper Beech, Liquidambar, Quercus coccinea, Q. Mirbeckii, Q. rubra, Q. nigra, Q. pannonica, Juglans nigra, Celtis occidentalis, Ailantus glandulosa and various Acers are all good for specimens. E. C. POOLEY.

(Head-gardener to C. Bewes, Esq.)

Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

VINES.—This is a good time to overhaul borders that may be in an exhausted state. Some growers expect their Vines to remain healthy and carry heavy crops of fruit with no attention to the border beyond an annual top-dressing of farmyard manure. This is very poor management, and the crop must eventually suffer.

Renewing the Border.—By this I do not mean the removal of the entire border. What I recommend is the removal of about 9 inches from the surface of the entire border, and then making it up with fresh fibrous loam, bone-meal and such other materials as are likely to benefit the Vines. By taking it in sections none of the roots will be left long exposed to the air. After finding the roots, examine closely to see that all are in a healthy condition. Healthy roots are of a bright brown colour, so are easily distinguished. Any that are black and dead should be cut away with a sharp knife. It is also a good plan, where fibrous roots are not abundant, to make a little incision with a knife every 9 inches or so on the large roots. This will induce them to throw out numbers of fibrous rootlets that will nourish the Vine in future years.

The New Soil.—After one section has been cleared out from the back to the front of the border, the new material should be brought in and spread over and among the roots. This compost should be chopped ready for use, and may be mixed beforehand or have bone-meal, old mortar rubble, charcoal and Thomson's Vine Manure added to it as the work of filling in goes on. Spread in 3 inches of loam first, then sprinkle the other ingredients over. Add another 3 inches of loam and then more of the lime rubble. Finish off with the loam and tread down evenly and very firmly. Inside borders must be well watered before the Vines are started.

Mulching Outside Borders.—Diversity of opinion exists as to mulching outside Vine borders during winter. Some hold that this prevents the sun's rays from warming the soil, while others are of opinion that a good layer of fresh stable litter, as rough as it can be got, conserves warmth in the border and helps materially to throw off heavy rains and snowfalls. Personally, I favour the latter idea.

Peaches.—Peach-borders are greatly benefited by being top-dressed in the same way as recommended for Vines. Pruning and tying can be undertaken very soon after the leaves fall, and advantage should be taken during stormy weather to thoroughly wash down all wood and glass and to make every corner of the Peach-house sweet and clean. The trees themselves should be well syringed with some approved insecticide, and if red spider has been troublesome it may even pay to apply an extra strong dose with a brush. At this season the insecticide may be used very much stronger than would be safe when the trees are in leaf. Many good growers fumigate with sulphur at the time of cleaning, and this certainly will kill all kinds of vermin lurking in cracks in the walls. It is quite safe when the trees are dormant.

Airing Fruit-houses.—All fruit-houses where the trees are resting should have abundance of air both night and day, unless very severe weather sets in. Of course, in many places the vineries and Peach-houses are packed full of bedding and greenhouse plants, and so a certain amount of fire-heat is necessary to keep out frost. Otherwise apply no fire-heat at all. C. BLAIR.

(Gardener to Seton Thomson, Esq.)

Preston House, Linlithgow.

THE FRUIT GARDEN.

FRUIT NOTES.

CORDON GOOSEBERRIES.—In practically all small gardens there is a north wall or fence from which the amateur fails to secure a profitable return; he does not find many climbers that will thrive satisfactorily in such a position, and the consequence is that in the majority of instances the space is occupied by a plant that is neither really beautiful nor substantially useful. It is for such an aspect as this that cordon Gooseberries can be most strongly recommended, since it is certain that, given intelligent management, they will carry splendid crops of fruit later than can be ensured from the bushes growing in the open, and as they are from a previously unprofitable situation they should be specially welcome. Two year old plants ought to be procured from one of the reliable fruit nurserymen advertising in THE GARDEN, and planting should be done as quickly as possible. Prepare the soil by deep and thorough digging, ncorporate some rotted manure in the second spit, and it will not be long before a return for the small outlay is being reaped. If the wall is of brick, the grower must be most particularly observant that the soil about the roots never becomes as dry as dust.

DIGGING AMONG ROOTS.—To suggest this will sound like heresy in the ears of many cultivators, who fear that to damage a single root on any of their Apples or Pears will mean instant death. But is this really so? Most assuredly it is not. Provided that proper care is taken and the blade of the spade or the tines of the fork are not driven in so deeply as to do serious injury to the roots, nothing other than good will result from the practice. Not only are water and air encouraged to enter more freely, but the weeds that are almost sure to be present can be easily and efficiently buried, and in rotting down they will yield a proportion of available food, of which the trees will have the advantage. It is far better, in my opinion, to dig above the roots, even though a few dozens may be broken, than to allow the weeds to remain and the surface to become so hard that it is impervious alike to air and water.

PLANTING RASPBERRIES.—October is without doubt the ideal time foi planting new Raspberry plantations, but it is comparatively seldom that it is possible, in the pressure of much work in that month, to accomplish the task, and it must, therefore, be done as soon afterwards as can be made convenient. It is impossible to cultivate the soil too deeply or thoroughly, and in its preparation, if a mixture of half-rotted leaves and manure in equal proportions can be provided, it will prove more advantageous than manure alone. Immediately after the canes are in position the stems should be cut down to within 6 inches or 8 inches of the ground, with a view to allowing the plants to become perfectly established at the roots before they are called upon to bear the strain of cropping; this precludes the possibility of any fruit in the first season, but it pays admirably in the long run.

TRIMMING STRAWBERRIES.—If the beds have not yet been put in order for the winter, there should be no further delay. Seize the first favourable opportunity that arises to remove all runners, dead and dying leaves from the plants and weeds from the soil carrying out the latter by hoeing and by hand, according to the position in which the robbers are growing. Carefully loosen the whole of the surface by lightly forking over, and finish the operation with a mulching of long manure containing plenty of droppings.

WALL TREES.—It is steadily becoming more general to find a few trees on the walls of small gardens, for the simple reason that amateurs have learned that with a little care not only can the wall be attractively furnished with fruit trees, but that these will bear a welcome burden practically every season. At this juncture the grower must concern himself with the roots as well as with the pruning of the branches. As soon as this latter work is done, the soil above the roots should be loosened with a fork and have a good covering of manure. As it is quite probable that the soil at the foot of the wall will be dry, it is always wise to make certain on the point before manuring and to apply two or three soakings of clear water if necessary; and if the trees are on the old and weak side it will be further exceedingly beneficial to supplement the water with heavy applications of liquid manure.

FRUIT GROWER.

POTATOES AFFECTED BY RHIZOCTONIA SOLANI.

THE KITCHEN GARDEN.

A LITTLE-KNOWN POTATO DISEASE.

(RHIZOCTONIA SOLANI.)

I AM forwarding some specimens of Rhizoctonia on Potato tubers, but regret that the specimens are rather poor ones. We have had comparatively little of this fungus here this season. The fungus is said to occasion considerable damage in the United States of America by causing "misses" in planted sets. In Germany also it has been stated by Frank to cause a "wet rot" of the tuber. I have, in Ireland, occasionally found it killing off the young sprouts of planted sets, but have never seen it producing a wet rot of the tuber. Here it appears to live, apparently, chiefly as a saprophyte in the soil, developing its sclerotia on the surface of the tubers. I have been studying its fructification, which appears as a whitish mould on the Potato stalks close to the ground-level. This stage has been called Corticium vagum variety Solani by American authors, but this name is not correct. The fungus is certainly not a Corticium. The fructification is what Prillieux and Delacroix have named Hypochnus Solani, and Massee calls it, I think, the "collar fungus." I have very clearly observed the connection between this collar fungus and Rhizoctonia Solani this summer, the hyphæ from the fructification being clearly traced down to the sclerotia below ground. We have another Rhizoctonia (R. violacea) which also attacks the Potato in Ireland. Locally it is known as "moss burning," and in England I think they call it "coppery web" in some parts. Its effect on the tuber is quite different from that of R. Solani, and although some authors regard the two as one and the same fungus, I believe Kühn was quite right in regarding them as distinct.

GEORGE H. PETHYBRIDGE.

Clifden, County Galway.

PRESERVED VEGETABLES.

THE class for the above at the recent exhibition of the National Vegetable Society demonstrated that in the future there is a wide opening for this new departure in vegetable culture, and the splendid exhibit staged by Mrs. Beckett proved that preserved vegetables can be equal in quality to the best summer vegetables. To many growers this will be an enormous boon, as when there is a quantity of choice things requiring immediate use, the value of preserving for a winter supply will be considerable. I had not time on September 28 to examine, as fully as I wished, all the exhibits staged, but in those I saw the results were splendid, and I noted that the bottled vegetables were remarkable for their splendid colour and appearance. The Peas and Beans looked most appetising, and they should appeal to those who like variety, as at certain periods of the year these bottled vegetables will be most useful. Again, the bottling process is very simple when the proper jars are used for the work. The vegetables should be bottled in pure water and cooked sufficiently long according to the variety. There is no great labour, and if the vegetables are gathered in a young state they are equal in quality to those freshly gathered, When they are home grown and bottled they are most valuable for winter use. Since preserved vegetables are of such great value, it is reasonably to be expected that the class specially devoted to them at the National Vegetable Society's show will be even better contested in the future. G. WYTHES.

THE GREENHOUSE.

WINTER-FLOWERING BEGONIAS AND THEIR CULTURE.

RANKING with the innumerable forms of Streptocarpus now in our gardens as one of the grandest creations of the last quarter of a century are the various members of that section of Begonias which flower during the late autumn and early winter months. The starting-point of these, as well as of the ever-popular Gloire de Lorraine, was Begonia socotrana, discovered by Professor Balfour during a natural history expedition to the little-known Island of Socotra in the year 1879. It first flowered at Kew in December, 1880, and soon passed into the hands of Messrs. Veitch, who obtained a first-class certificate for it in 1881 and put it into commerce in 1882.

As might be expected, this Begonia was not long in Messrs. Veitch's possession before it was taken in hand by Mr. John Heal and attempts made to obtain hybrids therefrom. The first success resulted from the fertilising of B. socotrana with the pollen of B. Viscountess Doneraile. This was a member of the tuberous-rooted section raised at Chelsea by Seden, and its flowers were of a bright vermilion colour. From this happy marriage the result in numbers was not great, but proved to be very far-reaching. Only one seedling was raised, namely, the variety John Heal, which first flowered in 1883 and was sent out in 1885. All the plants distributed—and they were a great many—were propagated as cuttings from this one individual. The variety is still grown to a considerable extent, though in some respects left behind by the more recent forms. The flowers, which are borne in great profusion, are rose carmine in colour. Adonis, which was the next variety, was sent out in 1887, but is not now catalogued by Messrs. Veitch. It was obtained from an orange-coloured tuberous-rooted variety fertilised with the pollen of John Heal, and has carmine-red flowers. Winter Gem, the result of crossing B. socotrana with the pollen of a very dark crimson tuberous-rooted variety, more nearly approaches the species than the two previously mentioned. It has crimson flowers, and though raised about twenty years ago is still a scarce variety and a comparatively expensive one.

Up to this time the Begonias of this section bore single flowers, but by using a semi-double rose-coloured tuberous-rooted variety as the seed parent, it, in conjunction with B. socotrana, yielded four distinct varieties, namely, Ensign, Ideala, Success and Winter Perfection. Of these Ensign has carmine-scarlet flowers; Success, rosy crimson; and Winter Perfection, bright rose pink; while Ideala is characterised by its dwarf, compact habit and comparatively large, brilliant, rose-coloured blossoms. In the above four the flowers are semi-double.

Other varieties are Mrs. Heal, one of the best of all, with large, freely borne and gracefully disposed single blossoms of a brilliant carmine tinged with scarlet; Julius, flowers more nearly approaching double and of a kind of salmon pink colour; Elatior, a rose carmine semi-double flower of great merit; and Winter Cheer, in leafage much suggesting the typical B. socotrana, but with handsome, semi-double, rich carmine flowers.

A pretty and interesting variety of Veitchian origin is Agatha. Its parents were B. socotrana and a very old hybrid known as Moonlight, raised by the late Major Trevor Clarke between B. Pearcei and B. Dregei. The variety Agatha greatly resembles Gloire de Lorraine, itself a cross between B. socotrana and B. Dregei. The variety Agatha compacta is altogether of a dwarfer and more compact growth than Agatha itself.

Flowering plants obtained now should be placed in a structure where the temperature ranges from 50° to 60°, and with this treatment they will remain in condition for a considerable time. After the flowers are over the plants go partially to rest, when they must be kept fairly dry, but not parched up, as they do not form solid tubers like those of the ordinary tuberous-rooted varieties. As spring advances they commence to grow, when, if needed, the young shoots may be taken off as cuttings. The spring-struck cuttings if grown on will form neat flowering examples in pots from 4 inches to 5 inches in diameter, according to their vigour. They thrive best in a good open compost, such as equal parts of loam and leaf-mould with a liberal amount of silver sand.

H. P.

THE SOFT SHIELD FERN (ASPIDIUM ANGULARE PROLIFERUM).

A GOOD WINDOW FERN.

AMONG the many British Ferns there are few that give us more variations than the Soft Shield Fern (Aspidium or Polystichum angulare), and the plant illustrated is the variety known as proliferum. In diameter this particular plant as grown is 4½ feet each way, but if the fronds were fully extended it would measure nearly, if not quite, 6 feet across. This beautiful specimen is owned by Mrs. G. Hobday of Havering Road, Romford, and is about seven years old. It was originally potted in a soil mixture composed of equal parts of loam, leaf-soil and sand, and beyond receiving an annual top-dressing of a similar mixture each spring it gets no special attention. It has, since the days of its youth, been grown entirely in a large window of the dwelling-house, and has been greatly admired by the many gardening friends who visit Mr. Hobday. Standing as it does on a tall pedestal, the fronds are enabled to hang over in a singularly graceful manner, and winter and summer alike it is an object of rare beauty. Those who have hitherto experienced a difficulty in growing Ferns indoors might with advantage try this variety, which is almost, if not quite, hardy.

There are, of course, many other hardy Ferns that might with advantage be grown as window plants, notable among them being the Hart-tongue Ferns. Of these there are very many beautiful forms, some with crested and tasselled fronds and others in which the fronds are prettily divided. The plainer forms, in particular, are easily cultivated, and will thrive in positions that suit the Aspidistra. Soil composed of loam, leaf-soil or peat and sand in equal proportions suits them very well indeed, and if care is taken not to overwater them during the winter months, they will give little trouble and remain in good condition for years.

A SINGLE PLANT OF ROSE DOROTHY PERKINS IN A SURREY GARDEN. (*See page* 562.)

THE ROSE GARDEN.

NEW ROSES OF THE YEAR.

(*Continued from page* 550.)

NATALIE BOTTNER (H.T., Bottner, 1910).—This will be a fine Rose for those who force for cut bloom. It is stronger in the stem than Kaiserin Augusta Victoria, as one might expect from a seedling of Frau Karl Druschki crossed with Goldelse. Frau Karl Druschki seems to be a favourite seed parent with many hybridists, and it is possible to obtain remarkable results from a careful blending. They need not be scentless Roses either, as, providing the pollen parent be a fragrant one, the latter quality is often imparted.

Nita Weldon (T., A. Dickson and Sons, 1909).—A very charming Rose of abundant flowering propensity, yet producing flowers of splendid quality. Each of the ivory white petals is edged with the faintest blush, giving the bloom a most distinct beauty.

Orleans Rose (Polyantha, Levavasseur, 1909).—Messrs. Levavasseur and Sons have given us many excellent novelties of the Dwarf Polyantha type; in fact, they may be said to have created the Baby Rambler Roses, the first being Mme. Norbert Levavasseur, a cross between Crimson Rambler and Gloire des Polyantha. Then followed Maman Levavasseur, known as Baby Dorothy; and now we have Orleans Rose, a cross between Mme. N. Levavasseur and an unnamed seedling. This variety is splendid, one that will be grown in huge quantities as a pot plant and also for bedding. It is the best of all, somewhat after the same style as Mrs. W. H. Cutbush, flowering in immense trusses. The colour is vivid rosy crimson, centre slightly white, outside of petals carmine.

Otto Von Bismarck (H.T., Kiese and Co.).—I have been rather disappointed with this Rose, so very well boomed as the 3,000 mark variety. Certainly the colour is better than Caroline Testout, but it has not the fulness of either this Rose or La France, and it was supposed to surpass both. As for fragrance it is not in it with La France. However, it is unsafe to judge a new Rose too hastily.

Panama (H.T., E. G. Hill and Co.).—This will be a fine bedder, I should imagine. It is a strong grower, with long growths carrying immense double blooms, which open perfectly. The colour is creamy white, with centre of Aurora pink. It scored nine points out of a possible ten at the Bagatelle trials in June, 1909, and will be sent out in 1911 by the above-named raisers of Richmond, U.S.A. It is a cross between Pernet-Ducher's Mme. Philippe Rivoire and Paul Neyron.

Penelope (T., Williams, 1910).—A splendid novelty from Australia of the Maman Cochet type, the outer petals at times quite blood red, shading paler towards the centre, which is primrose yellow. Flowers large and very full. This is a Rose for exhibitors to look after.

Portia (H.T., W. Paul and Son, 1910).—Flowers pale rose, base of petals and centre of flower shaded with apricot. The blooms are very large and full. P.

(*To be continued.*)

A ROSE PERGOLA IN THE REV. F. PAGE-ROBERTS' GARDEN.

THE ROSE PERGOLA AT STRATFIELDSAYE RECTORY.

THE pergola in the accompanying illustration leads from the rectory to the church at Stratfieldsaye. As a few years ago this was only a field, it gives some idea of the comparatively short time that is needed to beautify a garden. The illustration shows four years' growth of the Roses. The Rose in the foreground is Jersey Beauty; the others include Marie Lavallee, Mme. Alfred Carriere, Alberic Barbier, Helene, Réné André and the Longworth Rambler. (Miss) D. PAGE-ROBERTS.

Stratfieldsaye Rectory.

ROSE DOROTHY PERKINS.

THE Dorothy Perkins Rose illustrated on page 561 has been in its present position for the last three years, and is said to be by many who have seen it the finest specimen in the county of Surrey. The flowers were immense, in great profusion and perfect in colour. A. RIDES.

Stoneleigh Parade, Worcester Park.

THE FLOWER GARDEN.

A RARE BELLFLOWER.

(CAMPANULA LANATA.)

THIS rare Campanula, although it has been in cultivation from time to time for many years, has never become common in gardens, and is seldom seen in good condition. It is one of those species like C. tomentosa which requires a well-drained rocky ledge or cleft in the full sun. Under the name of C. velutina it has been distributed during the last few years by means of seeds from Bulgaria.

The plant shown in the illustration on page 563 was raised from seed received under that name, and was planted out in a sunny position in the rock garden. Here it survived during last winter and flowered freely during July and August. The stem was 1½ feet high, erect, and freely branched from the base. The branches were horizontal or drooping and leafy, and each bore several flowers, while the long-stalked leaves were covered on the upper surface with a grey silky down, giving the whole plant a silvery appearance.

The flowers are large and very pale yellow or nearly white, and are produced in succession for a long time. In its native habitats, Bulgaria and Servia, where it grows in the fissures of rocks, C. lanata is a perennial; but in this country, owing to various causes, it frequently dies after flowering, which has been the fate of the plant illustrated. It is best to treat it as a biennial and grow young plants on from seed, making a fresh planting every year. Abundant drainage should be provided, and the soil must also contain plenty of grit; but the best position would be a vertical wall where it could be planted between the layers of stones in full sunshine. W. I.

A LITTLE-KNOWN ROCK PLANT.

(CYANANTHUS LOBATUS.)

ONE of the alpines which has been much sought after, and which has fascinated the greater number of those who have had the pleasure of seeing it, is Cyananthus lobatus, a charming flower in every sense of the term. That it is not more plentiful is, however, evidence that it is not one which can be grown everywhere, and it has its own ways, which, unfortunately, are not always easy to learn, with the result that it is still a scarce garden flower, even in places where rock plants receive a full share of consideration.

It is not easy to describe the beauty of this Cyananthus, which has pretty, small, dark green leaves on trailing stems, and in the flowering season has handsome, deep purple-blue, Vinca-like blossoms with white centres. There must be

APPLE REV. W. WILKS.

Hudson & Kearns, Ltd., London, S.E.

few alpinists who do not covet it when they once have an opportunity of studying it in bloom, especially in gardens where it thrives. Such gardens there are, and the writer recollects coming across it in one of these some twenty-five years or more ago, and finding there a little carpet of trailing branches and leaves adorned with these exquisite flowers. It was on a terraced rockery facing west, and in sandy soil with some leaf-soil and peat among it. The owner of the garden, one of the most devoted admirers of alpines I have ever known and a good cultivator, used to give the Cyananthus frequent waterings in spring and summer, and from one's own experience the same treatment seems to suit it in most places where it has a chance of living and flourishing.

But it wants some consideration in winter, and the alpine-lover to whom I refer always took the precaution of covering it in winter to throw off the rains which trouble so many plants in our climate at that season. This was done by a sheet of glass or a piece of board held about 6 inches above the plants, so that the rain might be thrown off them without hindering the free access of air or harbouring slugs under the board, where this was used. I believe it likes this roof over its home, and that with plenty of drainage, the soil spoken of and a moderate amount of sun, together with moisture in summer alone, this lovely plant will give satisfaction and delight. It came to our country from the Himalayas more than sixty years ago, but is yet too scarce for such a good plant.

Dumfries. S. ARNOTT.

THE RARE CAMPANULA LANATA IN THE ROCK GARDEN AT KEW.

TREES & SHRUBS

HARDY AZALEAS FOR PRESENT PLANTING.

THE gorgeous colours assumed by the leaves of many of the hardy Azaleas previous to falling call our attention to a group of plants which delighted us earlier in the year by their showy flowers. The genus Azalea is not recognised by botanists; it is now placed in the large genus Rhododendron. Garden enthusiasts, however, prefer to reserve the name of Rhododendron for the evergreen species, and retain Azalea for the deciduous kinds. The name signifies very little, and does not affect the usefulness of the shrubs. Azaleas are useful for many purposes; they are equally delightful when planted in beds on a lawn, as at Kew, with all sorts of shades of colour intermixed in dazzling bewilderment, yet no two shades clashing; planted in groups in shrubberies, as is often apparent in our parks; or grouped by the acre in a semi-wild state in thin woodland, as is practised by Sir Edmond Loder at Leonardslee and by other owners of large estates.

Providing the soil is right, Azaleas give little uneasiness regarding culture, but they detest lime or a sour condition of the ground. Peaty, loamy or sandy soil, providing lime is not present, suits them admirably. The only pruning that is required is the removal of the flower-heads as soon as the flowers fade, so that the strength which would have been expended on seed production may go to the building up of the young shoots for next year's flowers.

Though the Azaleas usually grown are the hybrids and garden varieties of a few American and one Japanese species, there are other kinds less frequently met with that are well worth attention, and one of the prettiest is the delightful species Vaseyii, a shrub which has been introduced from the mountainous regions of Carolina. The flowers are white, slightly flushed with pink, though there are forms with pink and white flowers. Two rare purple-flowered species are found in the Japanese rhombicum and dilatatum, both of which blossom early in May. The purple-flowered Rhododendron Rhodora may be classed with the Azalea group—it is exceedingly floriferous and showy; while a quaint Japanese shrub with tiny leaves and rosy purple flowers is found in R. serpyllifolium. R. Schlippenbachii is a handsome-flowered plant from Manchuria and Japan, but, unfortunately, like other Manchurian shrubs, it commences to grow very early in spring, therefore it frequently falls a victim to late spring frosts; hence its suitability for the milder parts of the country only. The hardier forms of the Indian Azalea, particularly those of the amœnum class, are very suitable for gardens in the South of England and Ireland, while the variety Kæmpferii, which is found in the mountainous regions of Japan, is equally desirable and showy.

Turning to the kinds which are more frequently met with, we find that the chief species represented are arborescens, calendulaceum, nudiflorum, occidentale and viscosum from North America, sinense from China and Japan, and flavum from the Caucasus. Of this number sinense is most easily obtainable in the typical state, for the others have been crossed so frequently that hybrids are far more common than the types. Rhododendron sinense is well known to many people as Azalea mollis, and during early spring it is a familiar plant in almost every garden and market, for it is one of the most extensively cultivated of all shrubs for forcing, while its rich-coloured flowers make it a popular subject for room decoration. Grown out of doors it comes into flower rather earlier than the American kinds, and is often in full flower early in May. This sometimes leads to its undoing, for a late frost may injure its flowers. The blossoms are various shades of yellow, orange and red. It has been crossed with American kinds with good results. The flowers of this species have not the delicious fragrance of the American kinds. The flowers of R. viscosum are extremely sticky and powerfully fragrant. From this reason and the fact of its growing in swampy ground it has acquired the name of Swamp Honeysuckle. The Caucasian species, R. flavum, is a yellow-flowered kind which bears strongly scented flowers in May. The blossoms are yellow and larger than those of the American species. Crossed with calendulaceum some fine orange-coloured varieties with large flowers have been raised. Under the name of Azalea rustica a number of varieties with double flowers have appeared, all of which are showy. Named varieties innumerable may be obtained, which collectively are spoken of as Ghent Azaleas, from the fact that Ghent is a great centre of Azalea culture and a great many kinds have been raised there. Ghent or American Azaleas are extremely popular, and are adapted for growing in large beds in the open. If an upright growth is being made, it is advisable to shorten the leading shoots, this will induce the plants to break from the base and so form well-branched and dwarf specimens.

Those who know the Azaleas only from their flowers would do well to pay a visit to some large collection during September or early October, when the leaves show almost as great a variety of colour as the flowers do earlier in the year. At such a time one is apt to say that the Azaleas are worth growing for the sake of their autumn colour alone. W. D.

GARDENING FOR BEGINNERS.

HOW TO PLANT EVERGREEN SHRUBS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—In low-lying districts where the soil is of a retentive nature late layers of very choice Carnations must be lifted and planted in a cool frame. Border Carnations do not thrive quite satisfactorily in very damp ground, and it is much safer to keep the late-rooted layers in a frame in preference to planting them in a cold outside border at this season. In April the plants wintered in a frame will be sturdy and in good condition for planting out. The soil in the frame must not be very rich; good open loam in which a small quantity of old mortar rubble has been mixed will do better than anything else. The continuous wet weather during a part of October made the herbaceous borders look rather untidy, and advantage should be taken of the better weather to finally put such borders straight for the winter months. Of course, these borders will need constant attention in the winter, but no stems of plants should now be allowed to remain if they are ripe enough to cut off, and all supporting stakes, too, must be tied into bundles and stored away in a dry place. Double Arabis and scarlet Tulips may be planted in narrow borders at the bottom of rockeries, as the effect is very striking in spring. The Arabis might be employed as an edging and the Tulips planted behind, or they may be mixed, the Arabis forming a groundwork for the Tulips; this plan has the best effect. Lilium bulbs lifted recently from the borders must be stored in cold frames; it will only be necessary to keep the frost out, and if the bulbs are lightly covered with soil or Cocoanut fibre a little frost will not injure them.

1.—EVERGREEN SHRUB (RETINOSPORA) READY FOR DESPATCH.

Vegetable Garden.—The recent heavy rains have considerably loosened the gravel paths in many gardens, and where it will be necessary to do a great deal of wheeling of manure and soil on such paths, boards ought to be laid down. If this cannot be done, avoid wheeling always exactly in the same rut near the centre of the path. After the wheeling is done scatter some shingle on the path and then well roll it. Pick up all decaying vegetable leaves and destroy them. If left on the soil between the rows of plants they soon become offensive and harbour slugs and other pests. Pea and Bean sticks must be gathered up and stored without further delay. Where new sticks can be procured every year, the old ones may be burned as firewood; but if new sticks are scarce, the old ones can be again used with them. Old sticks should be stored where they will not be subjected to rain. A length or two of corrugated iron placed over them will keep off rain, and the protection will mean sounder sticks next spring.

Fruit Garden.—In a very short time now fruit trees trained on walls will need close attention in the matter of pruning and nailing. In the meantime get all the old nails out of the walls if they are not supporting any branches. First give the nail a gentle tap with the hammer to drive it straight in a little more; this action loosens the nail in the wall, and then it can easily be withdrawn. If the old nails are placed on a shovel and well baked over a fire they will be freed from much rust and foreign matter. The holes may be made in readiness for planting Peaches and Nectarines. The best aspects are those facing south, south-west and west.

Greenhouse and Frames.—The bedding-out cuttings now rooting in frames must be carefully examined once every week and all decaying leaves removed. One bad leaf will cause a whole plant to damp off, and one decaying plant, if left, may mean the loss of several more. Ventilate all frames freely during fine days if they contain such bedding plants as Zonal Pelargoniums. The glass lights on Calceolarias must be kept closed except for a few hours occasionally. Old Chrysanthemum plants must be cut down immediately the flowers have faded or are used, and the pot containing the suckers should be placed in a cool frame. If any of the old roots are shy in producing cuttings, put the pots on a stage near the glass in a greenhouse. Double-flowered Primulas must now be kept in the warmest part of the greenhouse, and watering must be a matter for close attention, as overwatering would cause the plants to decay at the collar.

A. A.

PLANTING EVERGREEN SHRUBS.

THERE is a slight difference of opinion as to the months when evergreen shrubs should be planted. Some authorities recommend August and September as the two best months, and those who have adopted this course have seldom had cause to be dissatisfied with the results. Others follow the practice of planting during October and the earlier half of November, and failure has seldom been recorded from observing this rule. If the choice of period were left to the writer he would select the latter. The advantage of planting in the early autumn is that the roots make new growth and the plants derive considerable support in this way before the wintry weather sets in.

The preparation of the soil in which evergreen shrubs are to be planted deserves more attention than it usually receives. The soil must be dealt with in a thorough manner. If a bed or border or a fairly large area is to be planted, the quarters should be trenched at least two spits deep; just ordinary digging over of the soil is quite inadequate. Poor soil should be enriched with a moderate dressing of well-decayed manure or leaf-mould. These materials should be incorporated at the time the ground is being trenched. Conifers revel in soil of a sandy or gravelly nature. Box and Yews give excellent results when planted in ground of a chalky nature, and for forming hedges quickly these two subjects are invaluable. Heavy soils suit the requirements of Laurels.

2.—METHOD OF PLANTING.

If it be possible, select a time for planting when the soil is in a good workable condition. The beginner should remember the importance of firm planting, and this can only be done satisfactorily when the soil is not sticky or pasty. The soil must be made firm about the roots, and friable soil makes this a matter of comparative ease. When the planting is done at this season, the ground is usually fairly warm and moist without being too wet, but the later this work is deferred the less satisfactory become the conditions for planting.

Orders for evergreen shrubs should be given in good time, otherwise there may be some difficulty in obtaining delivery of the plants at a sufficiently

3.—AFTER PLANTING.

early date. The selection also is usually better when the plants are delivered early in the planting season. Everything should be in readiness for planting when the trees arrive from the nurseryman, and each specimen should be delivered with the roots carefully matted. Fig. 1 shows a small specimen of Retinospora plumosa aurea just as it was received by the writer. On arrival the roots should be uncovered and examined, and if dry they should be immersed in water in order to get them thoroughly moist before planting. Injured roots should be removed with a sharp knife, cutting from underneath.

A very common mistake in planting is to make the holes for the reception of the plants much too small. The hole in each case should be large enough to accommodate the whole of the roots when spread out evenly, and the hole should be sufficiently deep for the fleshy or tap roots to be embedded to their full length. Never attempt to crowd the roots of a shrub or tree into a hole too small to take them comfortably. Fig. 2 serves to illustrate the method of adjusting a shrub in position. This is the same specimen as is represented in Fig. 1. In this instance the roots are spread out evenly and the stems of the plant placed deep enough to be embedded about 1 inch lower than the original soil-mark, which is always clearly indicated on the trees. Work into and cover the roots with some of the finer soil; it is a good plan to prepare a heap of friable soil for this purpose. An occasional shaking of the tree or bush will cause the soil to settle round the roots, and as the latter are covered and the hole filled in the soil should be trodden in firmly.

In Fig. 3 is seen the Retinospora after the planting is completed. These bush shrubs require no staking, but standard trees should be planted and staked, as explained and represented by illustrations in last week's issue. There are few evergreen shrubs to surpass in beauty a well-placed specimen of Cedrus Deodara. For an isolated position on a lawn and in other positions where the elegant and beautiful character of this Cedar can be properly represented this subject has few equals. It does remarkably well in suburban gardens where ample accommodation for its branching habit can be provided. In Fig. 4 a promising young specimen planted in an isolated situation is shown. A plant of such dimensions it is quite unnecessary to stake, but a larger example would probably need a stout stake for its support and additional security in the form of wires strained to pegs to keep it in position until able to take care of itself. It is a good plan to mulch the surface soil after planting is done. D. B. CRANE.

THE USE OF SAND.

SAND forms a very important part of nearly all composts used in the growing of plants in pots, boxes and borders, but more especially is it an important ingredient in potting soils. It keeps the soil open and porous, and thus prevents it becoming sour and unfit for the roots of plants to live in. Although sand, when exposed to winds and sunshine, soon appears to get very dry, nearly every grain really contains a little moisture, and when a number of grains are surrounding the roots of plants or the lower portion of a stem of a recently inserted cutting they tend to conserve moisture in an even state; surplus water passes through the grains of sand, but each grain retains a certain amount which greatly benefits the plant.

Beginners will thus see how very important it is to have a nice stock of sand in store. It should be washed and dried before it is used for cuttings and plants of a tender nature. It is really wonderful how much soil matter can be washed from one peck of apparently clean sand. As much of the latter will be used during the next few months, inexperienced cultivators are advised to wash and dry it first. If scattered on the surface of the soil in pots it prevents moss growing there. AVON.

THE TOWN GARDEN.

DAMP OR SHADY CORNERS.—A not infrequent enquiry from the amateur is, "What can I plant in a damp or wet spot which gets little or no sun?" Doubtless in thickly populated districts there are many such corners, which become more or less an eyesore because the ordinary run of plants only are used there instead of obtaining suitable subjects for the position. That the damp or shade may be of more than one kind there is not the smallest doubt, and, in those instances where light and air are practically excluded by high buildings, not many plants, even those of well-known shade-loving proclivities, will long endure so extreme a test. In such a place the Peach-leaved Campanulas, C. persicifolia in variety, Anemone japonica, a variety of Irises, many Ferns, the Butcher's Broom, London Pride, variegated Aucuba and St. John's Wort are some of the plants that appear more than ordinarily content with their lot. I have even seen Christmas Roses planted in these and similar places, though their behaviour under the circumstances afforded no sign, much less any guarantee, that all was well with them. Such enclosed places suffer mostly because of the sunless conditions, and usually they are only a breeding-ground for pests of all descriptions.

THE SHADED AERATED CORNER.—Damp, or even wet, with its not infrequent accompaniment of clay soil, is another place altogether, and may, more often than not, be converted into an ideal spot—one to which every path in the garden will presently lead, instead of a place to shun as heretofore. There is a welcome coolness here in summertime, and a freshness of vegetation enhanced in beauty by the shimmering light through the trees that is not usually found elsewhere in the garden; and, moreover, its owner has the satisfaction of having constructed this ideal spot out of a rubbish-heap, or, at least, a very untidy corner. If the shade be of a rather dense character, some good things will be found in Filix-mas Ferns, Athyriums, Blechnums and Scolopendriums, in conjunction with Lenten Roses, London Pride and Primroses; while the Purple Loosestrife and Foxgloves among taller plants, when they put forth their flower beauty, provide one of the prettiest of woodland scenes, even though the more extended vistas which the natural landscape provides are non-existing. Another type of the shady corners I have in mind are those of a low-lying character,

THE NATURALLY WET OR DAMP SPOT, for example, and which, given the right material, may always be turned to good account. The owner of so good a garden asset has more than one option here. He may, indeed, dig or trench the ground, add leaf-mould or manure, and plant it freely with Spiræa venusta, S. gigantea, S. Aruncus, Emperor and Sir Watkin Daffodils, together with Narcissus poeticus flore-pleno, Leucojum æstivum, Saxifraga peltata and S. granulata flore-pleno, adding, if the area be large, the Royal Fern (Osmunda regalis), Senecio Clivorum and other plants of bold outline; or he may convert it into a veritable bog garden in miniature by first excavating some of the soil, and, having added peat and leaf-mould, plant Trilliums, Primula Sieboldii in variety, P. rosea and P. Munroi in company with Lilium canadense, L. pardalinum, Iris Kæmpferii and Rodgersia podophylla, carpeting the ground, if need be, with "Blue-eyed Mary" (Omphalodes verna), Wood Anemones and other useful plants. To what extent success may be achieved in such places wil

4.—A PROMISING YOUNG CEDAR IN AN ISOLATED POSITION.

depend not a little upon the enthusiasm of the owner, though it should be stated that so great is the variety of available subjects that suitable plants may be found for the plot of only a few square yards across just as readily as for that of an acre or more in extent.

THE LESSON IN VIEW.—For those who take up seriously the embellishing of the out-of-the-way corners I have in mind, there is much more than the

mere satisfaction that they have made the most of the room at their disposal. There is, indeed, that greater satisfaction arising out of providing the plants with suitable soil conditions and environments, of witnessing their greater vigour and enhanced beauty of flowering, of seeing them grow and flourish amid natural surroundings rather than languish as heretofore, and, finally, of creating pictures within garden walls, even if only on a miniature scale, where no such pictures existed before. E. H. JENKINS.

NURSERY NOTES.

MESSRS. PENNELL AND SONS.

ABOUT three miles from the ancient city of Lincoln and situated in the midst of the rural scenery of Bracebridge are the famous nurseries of Messrs. Pennell and Sons. The head-offices in connection with the firm are in the High Street of Lincoln, and from the nursery may be had a grand view of the City cathedral, standing high above all else in the neighbourhood. It was our privilege to visit these nurseries towards the end of last month, and, even allowing that October is not the most favourable time to visit a nursery, yet on this occasion there was much to be seen of horticultural interest. The nurseries cover an area of 100 acres, devoted to herbaceous and rock plants, ornamental trees and shrubs, fruit trees, Roses and greenhouse plants. Each department is under the control of a specialist in his subject, an important point in the successful management of a nursery. It would, perhaps, be appropriate to commence by referring to the hardy flowers, for leading from the nursery gates is a straight drive about 100 yards long, with a deep border of flowering plants each side. The borders are well planted with bold clumps, and among other plants seen in flower were groups of Anemone Queen Charlotte, with its pale pink flowers, side by side with a patch of the brilliantly coloured Pentstemon Newbury Gem, and in the background a handsome clump of the Pampas Grass, with its light plumes waving in the autumn breeze. No fewer than 100 varieties of Phloxes find a home in these nurseries. Of this multitude three which show great promise and flower over a long period are: General van Heutz, bearing immense trusses of salmon red flowers; G. A. Strohlein, a grand new variety with enormous orange scarlet flowers; and another having the misfortune to be named Gruppenkönigin. The flowers of this variety are very effective, being of a beautiful flesh colour with a deeper eye. Two of the most charming Asters, or Michaelmas Daisies, were the small white-flowering variety Delight, with sprays drooping almost to the ground, and that magnificent large blue appropriately named Climax. The graceful Cimicifuga simplex was still carrying its erect spikes of white flowers, giving ample proof of its autumn-flowering qualities. Very extensive stocks of the general run of herbaceous plants were noted, and much space is given to Pyrethrums, single and double, Heucheras, Anchusa italica Opal (similar to the Dropmore variety, but of a lighter shade), Pæonies and Irises. Montbretias are kept to themselves in large rectangular beds. Mention should be made of the new varieties Prometheus, deep orange, tinted crimson; carminea, a variety well named; and Drap d'Or, which attains a lovely apricot shade. Some bulbs of Lilium giganteum had flowered but scantily, and my guide informed me that it does flower there occasionally, but it requires a lot of persuasion.

A very charming pond for water and bog plants, surrounded by high rocks for alpines, is now being constructed within the nursery grounds. This cool retreat, enclosed by a hedge of Yews, will be approached by walks covered with arches of Roses and Clematis. The pond is not cemented, but is made upon the natural clay, and the water is supplied by a reservoir, which in turn is fed by the River Witham. This new feature of the nursery has been admirably designed by Messrs. Pennell and Sons. A very large portion of the nursery is devoted to ornamental trees and shrubs, and so comprehensive is the collection that it would be hard, if not impossible, to name a garden tree or shrub that does not find a home there. That the collection is quite up to date is shown by the fact that newly introduced plants from China are being propagated in great numbers. A handsome specimen of Young's Weeping Birch looks well among a host of hardy shrubs. It was interesting to observe how the drooping tips of growth were being inarched upon stocks of the common Birch. The stocks were in their fourth year and about 5 feet in height. For the purpose of inarching they are planted around the parent tree about 6 feet from the main stem. The inarching is done in March, and the scions are severed from the parent tree in the following autumn. Some splendid examples of this Birch were afterwards seen planted out in the grounds, making ideal specimens for the shrubbery or for planting in little groups on the lawn.

Rhododendrons, Hollies and conifers of all descriptions are cultivated in thousands and tens of thousands. A large batch of Cedrus Deodara raised from seed five years ago, now 5 feet high and well furnished with good fibrous roots, may be cited as an example, of which there are many others. There is one Cupressus which, forming a perfect pyramid of deep green, stands out from the rest. It was raised in this nursery, hence its name C. Pennellii.

Forest trees suitable for planting on large estates are to be seen in endless numbers. The Wheatley or Cornish Elm is worthy of special note, since it retains its deep green foliage later than any other, even until Christmas; it therefore makes a splendid screen or shelter. Planted in large quantities were such trees as the Canadian Elm, Norway Maple, Horse Chestnut, Robinia, Lime, Beech, Poplar, Birch and Oak, all suitable for planting as park or avenue trees for immediate effect.

Space will not allow us to do justice to the magnificent stock of Roses grown in these nurseries. It is little wonder that they do so well, for at the time of our visit the ground was being bastard trenched and enriched with decayed farmyard manure in preparation for Rose-planting.

Passing on to the fruit trees, which form one of the most important departments, we see the best varieties of Apples, Plums, Pears and all other hardy fruit trees trained in every conceivable manner. One thing most apparent among the fruit trees is their healthy and happy appearance—not too vigorous in growth, but just in that good and fruitful condition that reflects the highest credit upon the cultivation.

THE EDITOR'S TABLE.

VIOLETS FROM CHRISTCHURCH.

Mr. G. Brown, The Gardens, Harrow Lodge, Christchurch, sends flowers of the double Violets Marie Louise and Mrs. J. Astor, which at this season are particularly welcome on account of their charming fragrance. The seedling referred to by Mr. Brown much resembles in colour the French Parma Violets. Mr. Brown writes: "I am sending you a few Violets for your table. They include Marie Louise and Mrs. J. Astor and a few of a paler-coloured one which is a seedling. It h never been named or sent out. All my Viole are very good this season. You will see that th new one has good, long flower-stalks, which enab it to carry its flowers well above the foliage. Th is a good point in Violets, but I do not like th colour so well as I do the old Marie Louise."

A NEW VIOLET.

Mr. J. H. Stevens, Woolbrook, Sidmouth, sen us flowers of a very beautiful single Violet name Askania. This is a very large variety of dee rich blue colour, the blossoms being borne o long, stout stems. Unfortunately, the flowe sent are not very strongly perfumed; but, no withstanding this, it is evidently an excelle novelty. Mr. Stevens writes: "I am sendin you two bunches of the new Violet Askania, an should be glad of your opinion of the same. It flowering very freely at present, and does equall as well outside as under glass. It is a stron grower and very free from disease."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends make* THE GARDEN *helpful to all readers who desire assis ance, no matter what the branch of gardening may be, an with that object will make a special feature of the "Answe to Correspondents" columns. All communications should b clearly and concisely written on one side of the paper onl and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistoc Street, Covent Garden, London, W.C. Letters on busine should be sent to the* PUBLISHER. *The name and addre of the sender are required in addition to any designation h may desire to be used in the paper. When more than on query is sent, each should be on a separate piece of pape Plants for naming should be clearly numbered and secure packed in damp grass or moss, not cotton-wool, and floweri shoots, where possible, should be sent. It is useless to sen small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Treatment of Ageratum (*Betty*).—Thi useful bedding plant may be raised from seeds o rooted from cuttings of the young shoots at an time. Seeds, assuming the plants to be require for bedding purposes, should be sown in Januar or February in a warm greenhouse, and grow on briskly till the season arrives for planting out Transplanting would be necessary on two or thre occasions to ensure sturdy plants, and after th end of March the plants would be safe in a slightl heated frame. Young cuttings, *i.e.*, those o unflowered wood, root readily in sand and water i a warm greenhouse or in very sandy soil in pots but require to be potted on so soon as rooted to enable them to develop bush-like plants. Pinching back the plants to cause them to break freely is also a necessary item. Cutting-raised plants furnish the most regular-sized ones, being all true to one stock; while seedling-raised plants are variable and require selecting.

Chrysanthemums failing (*Edith H. L. Lydall*).—It is highly probable the failure is due partly to your not having early flowering varieties, and partly also to your stiff soil, in which many plants are longer in taking root. The plants should have been in position early in April, and should also have been assisted by watering and by a little artificial manure. In future better results will be secured by taking cuttings in February, rooting them and growing them on till April for planting out. Plants that are starved when put out rarely, if ever, recover, and for stiff soil the best display is made when good-sized plants are

used. Could you not send us a list of the varieties you possess? We could then see if you have the most useful sorts for the purpose.

Phlox going wrong (*Phlox*).—The Phlox is attacked by eelworm in the stems. Burn all the affected parts, and the plants, too, if they can be spared. In any case propagate only from perfectly healthy shoots, and treat the soil with sulphate of potash next spring or with kainit this autumn.

Pansies diseased (*Mr. A. C.*).—The Violas are affected with green fly; but those you call brown flies are really green ones which have been attacked by a little parasitic fly. If you examine the brown bodies you will find a small hole through which the parasite has escaped. Yes; you may fumigate without danger, or spray with a nicotine preparation. Please send a specimen of the affected plants.

Lilac leaves diseased (*A. M. G.*).—The Lilac is attacked by a disease due to a bacterium, which spreads through the tissues and kills the cells. The disease has no connection whatever with the Hollyhock. It would be well to remove the dead leaves as completely as possible from under the bushes and burn them, so as to check the spread of the trouble as far as possible. If the leaves cling after the others have fallen, cut out and burn these shoots.

Single Pæonies and Day Lilies (*L. M. J. M.*). The Pæonies are producing all the evidences of weakness from some cause of which we have no information. Feebly rooted or transplanted at a wrong time are some of the predisposing causes, and the resulting crowns, being weak, are unable to develop the flower-buds. Pæonies take some time to become established, and you do not say how long the plants have been in position. The non-flowering of the Day Lilies is a much greater surprise, unless the soil is exceedingly poor. Day Lilies delight in deep and rich soils, and are only brought into a condition of non-flowering by soil poverty, such as the near proximity of trees would be responsible for, and by long-continued overcrowding of the crowns. In each case the remedy is obvious, and the necessary work of reinvigorating the plants may be started at once. If you can tell us more of the Pæonies we might help you further.

TREES AND SHRUBS.

Walnut leaves for leaf-mould (*H. R. P.*). Walnut leaves may be mixed with other kinds of leaves for leaf-mould if the latter is to be used for top-dressing purposes or for digging into ground out of doors. We do not, however, advise you to include them in a heap which is intended for potting purposes. The best kind of leaf-mould for this is made from the leaves of Beech and Oak, and is always greatly superior to that made from a general mixture of leaves. Pine needles ought never to be included in a heap of leaves for leaf-mould, as they are poisonous to other plants. We have not heard that Walnut leaves act as a poison to plants, though it may be so in some cases, especially if they are in the greater proportion in the mould.

Untidy Lilac bushes (*Cashmere Bouquet*). We advise you to cut down your Lilacs which have become leggy. This may be safely done any time during the winter. All the cuts ought to be tarred over as soon as the work is done. During next summer numerous young branches will be formed from the old wood. It is probable that a quantity of suckers will also appear from the root-stock. Should this be the case, we advise their removal, or, at any rate, the greater part of them. It may also be necessary to remove some of the shoots from the main stems if they appear to be too crowded. When the young shoots are 2 inches or so long a good surface-dressing of well-rotted manure may be placed round the roots with advantage. The pruning of the yellow Broom is, however, a very different matter, for by cutting that back into old wood you will be almost certain to kill the plant, and it will certainly never break away again to form a well-furnished specimen. Brooms are short-lived shrubs as a rule, and when they become leggy the best plan is to burn them and start again with young stock. This may be easily done, for all produce an abundance of seeds which germinate well.

Beech bark for inspection (*Edward Worsley*).—The Beech bark forwarded for examination was affected by Cryptococcus fagi, the Beech louse or Beech coccus. We advise you to cut down and remove the tree which appears to be dying, and dress the other trees with soft soap and paraffin. It is not probable that the disease will get much worse with you, and it is not often that this pest alone destroys a tree; there is usually some other agency at work.

History of the Walnut tree (*H. R. P.*).—There is really no reason why the Walnut should be called "French Nut," for it is not even known that it was introduced from France, and is considered as a probable introduction of the Romans. The fact that the tree is cultivated extensively in some parts of France for the sake of its nuts, which, in addition to their edible value, are of great use on account of the oil they contain, may have accounted for the name. A variety given as French Walnut is noticed in some old books. This bore nuts twice as large as those of the type, and probably corresponds with the one which is now known as Juglans regia var. maxima. The timber usually bears the name of the country in which it is grown, such as English Walnut, French Walnut and Italian Walnut, all being from the same tree, viz., J. regia.

THE GREENHOUSE.

Flowers, fruits or vegetables for cold greenhouse (*R. J.*).—You do not say whether your greenhouse is a lean-to or a span-roofed structure. If a lean-to you might grow some Peaches on the back wall, for though no fire-heat is used, yet the structure will serve to protect the blossoms during a critical time. Again, fruit trees may be grown in a satisfactory manner in pots, a style in which they have been well shown of late at the meetings of the Royal Horticultural Society. Tomatoes, of course, may be grown there, while such a structure is also available for the smaller class of saladings, which can be sown in shallow boxes, and of which you may get an earlier crop than from the open ground. French Beans, too, grown in boxes will give you a few early pickings. Some cultivators regard Chrysanthemums as a crop to follow Tomatoes; that is to say, the Chrysanthemums are during the summer planted out in the open ground, and, when the Tomatoes are removed, the Chrysanthemums are carefully lifted and planted in the greenhouse. If done with care and the plants are not overcrowded, they will give a good supply of flowers.

Nertera depressa not flowering (*T. E. W.*).—There is no doubt that the absence of berries on your Nerteras is owing to the fact that the plants grew so freely and did not flower. The flowers, borne in the summer, are small and inconspicuous, being of a greenish tint. They are produced in the axils of the leaves. Another matter that plays an important part in the production of berries is the weather experienced during the blooming period. In a greenhouse the atmosphere may at that time be kept fairly dry in order to enable the flowers to discharge their pollen, but out of doors heavy rains may, in some cases at least, hinder the setting of the berries.

FRUIT GARDEN.

How to make a new border for Vines (*H. I.*).—Clear out the whole of the soil from the inside of your vinery to make room for the new borders. Make sure that the drainage is efficient before the new borders are made. You do not say how wide your vinery is. Make new borders—one on either side—3½ feet wide and 2½ feet deep, building a turf wall in front of each to keep the soil in position. The soil should be composed of the following mixture, as near as you can approach to it: To one cartload of good maiden turfy loam, cut from an old pasture field, add half a hundredweight of quarter-inch bones, a quarter of a hundredweight of bone-meal, three barrow-loads of old mortar or lime rubble, one barrow-load of brick-ends, broken small (the size of pigeons' eggs) and one bushel of quicklime. Mix all well together, and make up the soil of the border very firm when it is being formed. Planting may take place any time between now and Christmas; but November, we think, is the best time. Begonias should be taken up and placed in their winter quarters without further delay, or they may be destroyed by frost.

Pears cracking (*G. E. Price*).—The cracking of the Pears is due to the attack upon them of the fungus Fusicladium pirinum. A similar fungus attacks and causes scabby spots upon them. In both cases not only is the fruit attacked, though it is most noticeable upon this, but also the leaves and the shoots. It is upon the latter that the fungus overwinters. It may be kept in check by removing the dead or dying shoots and spurs thoroughly and burning them, and by spraying the trees, once before the buds burst and twice later at intervals of about three or four weeks, with Bordeaux mixture at half the usual strength used for Potatoes.

MISCELLANEOUS.

Names of fruit.—*A. B.*—1, King of the Pippins; 2, Margil; 3, Stamford Pippin.——*W. de H. Birch.*—Apples: 20, Kedleston Pippin; 13, Yorkshire Beauty; 15, Jolly Beggar; 27, Lady Henniker; 32, Stamford Pippin; 44, Golden Harvey; 18, Keswick Codlin; 56, Ribston Pippin; 48, Ross Nonpareil; 68, Nelson's Codlin; 67 and 72, King of the Pippins; 74, Hawthornden; 45, Cox's Orange Pippin; 66, Dutch Mignonne. Pears: 16 and 68, Beurré Clairgeau; 52, Beurré Superfin; 77, Maréchal de la Cour; 80, Duchesse d'Angouleme.——*D. P., Cloughey.*—A, Warner's King; B, Worcester Pearmain; C, Improved Keswick Codlin; D, Lane's Prince Albert.——*Name and address missing.*—Both fruits are Apple Cox's Pomona.

Names of plants.—*H. W. Stevens.*—Lindera glauca.——*M. H.*—Linaria alpina.——*C. D.*—Primula vulgaris lilacina; Potentilla Tonguei; 3, Veronica pinguifolia; 4, V. carnosula.——*H. Porter.*—Aster Linosyris.——*Shelley.*—1, Lychnis coronaria; 2, Chrysanthemum uliginosum; 3, Sidalcea candida; 4, Saxifraga crassifolia; 5, Sedum spectabile variegatum; 6, Phlox stellaria lilacina; 7, Sedum spectabile; 8, Pulmonaria officinalis; 9, Euphorbia Cyparissias; 10, Chrysanthemum maximum; 11, Juniperus chinensis; 12, Melissa officinalis variegata.——*E. B.*—Sparmannia africana. Requires cool greenhouse treatment.——*S. Clarke.*—1 and 2, forms of Dendrobium nobile; 3, Lycaste leucantha.——*W. A. P.*—1, Cupressus sempervirens; 2, Tsuga canadensis; 3, Thuya plicata; 4, Cedrus atlantica; 5 and 6, C. Deodara——*H. Hawke.*—Correa alba.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY.

THIS society opened its great floral festival on Wednesday, November 2, at the Crystal Palace. This is the society's principal exhibition, lasting for three days. Large and well-arranged groups of Chrysanthemums from leading growers were remarkable for their quality, and have never been surpassed for effect, and the large blooms exhibited on the show-boards were once again quite up to exhibition standard.

COMPETITIVE CLASSES.

Floral display of Chrysanthemums and suitable foliage plants arranged on the floor in a circular space of 200 superficial feet: This class was won by Lady Tate, Park Hill, Streatham Common (gardener, Mr. Howe); second, J. C. Eno, Esq., Wood Hall, Dulwich, S.E., (gardener, Mr. R. B. Leech). In both instances these circular groups were composed of single and exhibition Chrysanthemums in pots, interspersed with appropriate foliage plants.

Twelve vases of specimen blooms of Japanese Chrysanthemums, distinct. This is known as the great vase class: The first prize was won by Mr. W. Iggulden, Locks Hill Nurseries, Frome, with the following varieties: Mrs. W. Iggulden, Reginald Vallis, Mme. G. Rivol, Mrs. P. H. Marsham, Francis Jolliffe, F. S. Vallis, Mme. P. Radaelli, White Queen, Lady Talbot, Master James, Hon. Mrs. Lopes and Algernon Davis. The second prize was won by A. C. Hammersley, Esq., Abney House, Bourne End (gardener, Mr. T. Waller), with an admirable lot. This class was well contested, the blooms throughout being quite up to exhibition standard.

National competition of affiliated Chrysanthemum and horticultural societies: The challenge trophy and first prize were won by the Dulwich Chrysanthemum and Horticultural Society with a splendid table of vases and epergnes of Chrysanthemums; second, Reigate and District Chrysanthemum Society with a beautiful table worthy of special note for its harmonious blending of colour.

Thirty-six incurved blooms. The first prize carried with it a challenge cup. This class for incurved blooms always attracts a deal of attention in spite of their waning popularity. The well-known grower, Mr. W. Mease, gardener to A. Tate, Esq., Downside, Leatherhead, once again secured the first prize; and the second was gained by Pantia Ralli, Esq., Ashtead Park, Epsom (gardener, Mr. G. J. Hunt).

Challenge cup class for forty-eight Japanese blooms, distinct. This proved to be one of the best-contested classes, and all of the stands reflected the highest credit upon the exhibitors: First, E. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson). On this stand we noticed exceptionally fine blooms of F. S. Vallis, Mme. G. Rivol, Master James and Hon. Mrs. Lopes. The second prize was awarded to A. C. Hammersley, Esq., Abney House, Bourne End (gardener, Mr. T. Waller). This stand contained a well-coloured, but rather small, bloom of Pockett's Crimson.

Twelve vases of incurved blooms: First, J. B. Hankey, Esq., Fetcham Park, Leatherhead (gardener, Mr. W. Higgs). This noted exhibitor still maintains his reputation as a grower of incurved sorts. His best blooms were Norbury Pink, Mrs. B. Hankey, Buttercup and J. Higgs. All the flowers were beautifully finished and quite free from any trace of ragged petals. Second, A. Tate, Esq., Downside, Leatherhead (gardener, Mr. Mease).

Twenty-four blooms of Japanese, distinct: The first prize, a silver cup given by Sir Albert Rollit, LL.D., D.C.L., president of the society, was won by E. Mocatta, Esq., and the second place by Mme. Stuart, Convent Gardens, Roehampton, S.W. (gardener, Mr. A. Smith), for a capital stand of fresh-looking blooms.

Twelve Japanese blooms, distinct: This was unquestionably one of the features of the show. The first prize was gained by E. Mocatta, Esq., the finest blooms being F. S. Vallis, Mme. G. Rivol and Lady Talbot; second, Mrs. George Clark, Farnham (gardener, Mr. C. Moore), with an almost equally fine lot, including Mrs. C. Penford, J. Lock and Hon. Mrs. Lopes.

Vase of five Japanese blooms, white, one variety only: First, Mrs. George Clark, Frensham Place, Farnham (gardener, Mr. C. Moore); second, Mrs. McDowel Nathan, Little Heath Wood, Potter's Bar (gardener, Mr. W. Newton). In both cases the variety Mrs. A. T. Miller was shown, and from the grand flowers exhibited in this class there seems little doubt that this is the best white in cultivation.

A similar class for a yellow variety only was won by Mrs. George Clark with grand blooms of Hon. Mrs. Lopes. Mr. Iggulden was second with the same variety, but the blooms were unmistakably inferior to those shown by the former.

A similar class for any one colour other than yellow or white was won by Mr. W. Iggulden with a magnificent vase of Mme. P. Radaelli; second, R. H. B. Marsham, Esq., Bifrons, Canterbury (gardener, Mr. D. H. Fairweather), with five lovely blooms of Mrs. C. H. Totty. Mr. Fairweather has raised a number of promising seedlings, some of which were shown on this occasion.

Six incurved blooms, one variety: First, Miss Langworthy, Gays House, Holyport (gardener, Mr. T. J. Broom). The variety shown was Romance, yellow. The blooms were well dressed and of good depth.

Special prizes of a silver Rose bowl by C. E. Shea, Esq., and second and third prizes by J. H. Witty, Esq., were offered for a table of singles, to be arranged for effect. First, Mr. Norman Davis, Framfield, Sussex; second, E. Mocatta, Esq. This class brought good competition, clearly showing the decorative value of this section, which is now becoming more and more popular.

Fifty plants of Chrysanthemums as grown for market: First, Messrs. Butler Brothers, Burr Farm Nurseries, Bexley Heath, who showed decorative Chrysanthemums less than 2 feet in height grown in 5-inch pots and producing a profusion of flowers. This system of cultivation is likely to meet with favour among those who require small plants for conservatory or greenhouse decoration. The committee showed its appreciation of this group by awarding it the Dean Memorial gold medal.

DECORATED TABLES.

Floral decoration of Chrysanthemums for a dinner-table, yellow and bronze blooms only (special prize given by Mr. R. F. Felton): This class brought splendid competition, and the judges found it no easy task to make their awards. The first prize went to W. H. Stone, Esq., Donnington, Laurie Park, Sydenham (gardener, Mr. T. W. Stevens). Mrs. A. R. Robinson, Park Hill, Carshalton, was second. In most of the tables the autumn tints of Ampelopsis were used with good effect.

In a similar class for a Chrysanthemum table, other than yellow or bronze, the order was reversed. In this class Mrs. Robinson secured the first place with single and Japanese blooms, all in one shade of pink; and W. H. Stone, Esq., was second with bronze and white flowers, interspersed with light Grasses. Altogether the decorated tables presented a most pleasing feature.

Decorative display of Chrysanthemums with suitable foliage: The silver cup in this class was won by Mr. W. Gooding, Four Elms, Edenbridge, Kent, with a pretty combination of small yellow, bronze and white flowers.

AMATEURS' CLASSES.

Six Japanese, distinct: First, the Rev. A. E. Cooper, Marsdin, Bickley (gardener, Mr. W. Rigby). The board contained a fine bloom of Mrs. G. Mileham. The same exhibitor gained first prize in a class for twelve Japanese blooms, distinct.

Six Japanese, one variety: First, T. Wickham Jones, Esq., Frocester Lodge, South Norwood (gardener, Mr. L. Gooch), with a good board of F. S. Vallis.

Six Japanese, distinct: First, Mr. W. M. Heath, Fir Tree House, Woodford.

Six incurved, one variety: First, C. Todd, Esq., Hackbridge Lodge, Carshalton (gardener, Mr. H. W. Edwards). The variety Clara Wells was shown.

LARGE GROUPS

Rarely indeed do we see Chrysanthemums of such good quality as those grouped on this occasion by Mr. Norman Davis, Framfield, Sussex. From a groundwork of Maidenhair Fern, Crotons and other foliage plants, interspersed with cut blooms of Chrysanthemums, were bold stands of the following well-known varieties: George Hemming, Henry Poulton and J. Lock. In the background were tall Palms and Bamboos arranged with imposing effect. This wonderful display received a large gold medal, awarded by Messrs. Clay and Son, Stratford, for the best miscellaneous exhibit in the show. An illustration of this group appears below.

In the centre of the Palace, and immediately in front of the orchestra gallery, was a magnificent display of exhibition and single blooms arranged by Messrs. H. J. Jones's Nurseries, Limited, Lewisham. The groundwork was composed of cut blooms, interspersed with Crotons, Pandanuses, Dracænas and various Ferns, and edged with Asparagus plumosus. Among this charming groundwork bold stands and massive vases of Chrysanthemums were placed. These were filled with blooms of exquisite form and perfect quality, and the flowers were nicely set off by the liberal use of cut foliage from Oaks, Beeches, Maples and Rhus cotinoides. Large gold medal.

The society's large gold medal was won by Mr. Philip Ladds, nurseryman, Swanley Junction, with a capital group of exhibition and single varieties. Among the singles was a new clear pink variety, Joan Edwards, which gained a first-class certificate.

Messrs. Wells and Co., Merstham, Surrey, staged about 80 feet with cut blooms and pot plants. The single-flowered varieties were shown to perfection, while the exhibition blooms were among the best in the show. A large gold medal was deservedly awarded for this group.

From Messrs. H. Cannell and Sons, Swanley, Kent, came an admirable collection of Apples, about sixty dishes in all. This contained good samples of the following: Dessert—Worcester Pearmain, Queen Caroline and King of the Pippins. Among the cooking varieties were noted handsome fruits of Bramley's Seedling, Bedfordshire Foundling and Lord Derby. From the same firm came a stand of single Chrysanthemums and a brilliant collection of Pelargoniums. Large gold medal.

Mr. Frank Brazier, Caterham, gained a large silver medal for a pretty collection of perennial Asters, backed with evergreen and ornamental shrubs and flowering spikes of the Pampas Grass.

A large silver-gilt medal was awarded to Mr. H. W. Thorp, Durrington, Worthing, for a group of fine exhibition blooms arranged rather formally.

For a collection of winter-flowering Begonias of the Gloire de Lorraine type, Mr. G. L. Caselton of the Crystal Palace Company gained a silver-gilt medal.

A collection of ornamental shrubs from Messrs. David Russell and Son, Brentwood, gained a large silver medal.

Mr. W. J. Godfrey, Exeter, was represented by a collection of single and exhibition Chrysanthemums and a bright display of Pelargoniums.

Messrs. Cheal and Son, Crawley, staged a representative collection of Dahlias, which won the society's large silver medal.

Messrs. John Peed and Son, West Norwood, gained a large gold medal for a meritorious collection of Apples, both cooking and dessert, also for a first-rate display of cut blooms of Chrysanthemums arranged in a circular manner.

A silver-gilt medal was awarded to Messrs. Hobbies, Limited, Dereham, for a collection of Dahlias and Roses. The Pæony-flowered Dahlias were greatly admired.

Messrs. Walter Voss and Co., Limited, Millwall, had a display of horticultural sundries, including Alpha spraying-machines, their No. 1 Winter Spray Fluid for cleaning fruit trees, Naptho Nicotyl (a soil fumigant) and their famous Carlton Excelsior Chrysanthemum Fertiliser.

A silver-gilt medal was awarded to the Government of British Columbia for an attractive display of Apples.

Messrs. H. Scott and Sons gained a silver-gilt medal for a display of horticultural sundries, in which rustic-work formed the chief feature.

The floral committee had fully 100 noveltiles to de with. A high standard of quality was set up, and ea of the following varieties gained a first-class certificate:

Cedy Mason.—A very attractive single of large size an good form; colour, bright chestnut red, with golden cent or disc.

Mrs. Richard A. Witty.—A very handsome exhibitio Japanese bloom of reflexed form, having broad peta incurving at the tips; colour, chestnut red, with bu reverse. Both the above were shown by Messrs. W Wells and Co., Merstham.

Snowflake.—This is a beautiful single of large size an good form, and, as the name suggests, is pure white with yellow disc. Shown by Mr. P. Ladds, Swanley, Kent.

Mrs. Greening.—A useful addition to the sports fro Caprice du Printemps. In this instance the colour is pretty soft tone of pink, tipped gold. A market variety.

Butler's Caprice.—Still another sport from Caprice d Printemps. In this instance the colour is old rose, tipp gold. Both the above were shown by Messrs. Butl Brothers, Bexley Heath.

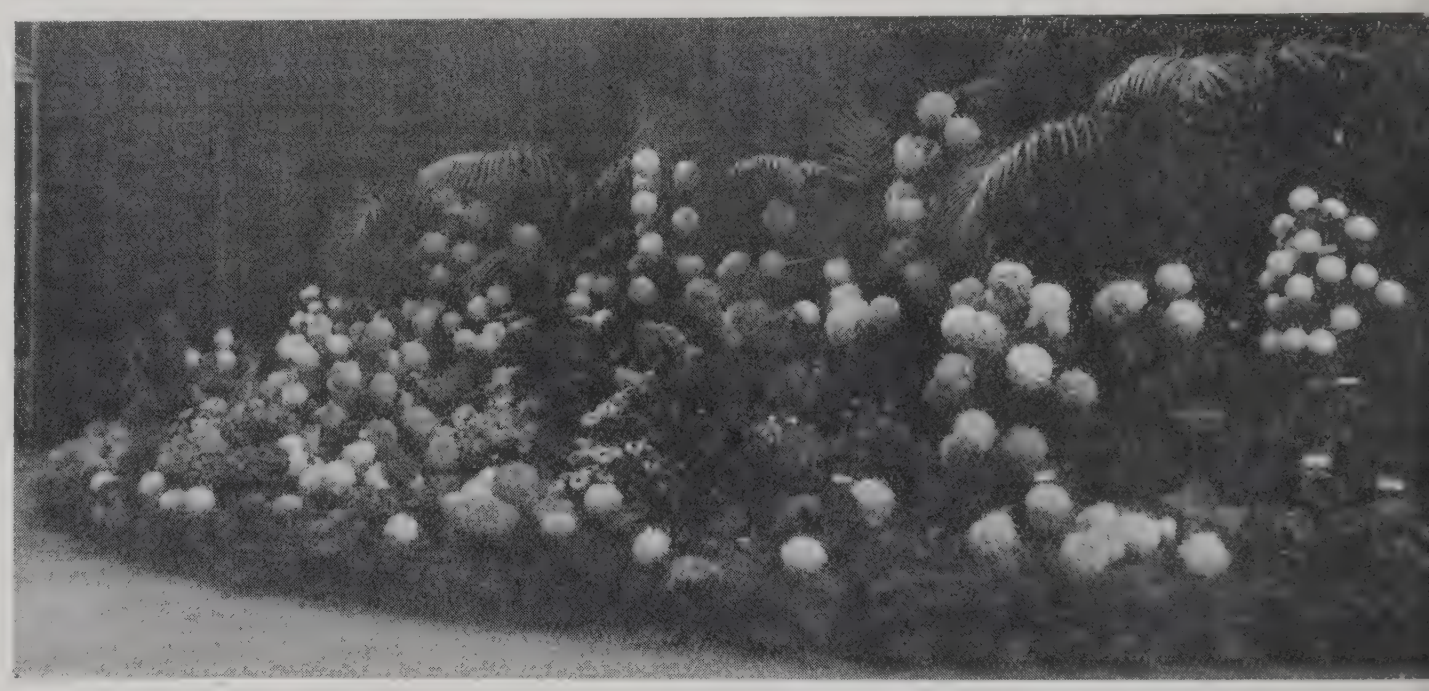
Mrs. W. Roots.—This is a medium-sized market variet of Japanese form and of the purest white. Shown b Mr. W. Roots, Cranford, Middlesex.

D. B. Crane.—One of the best Japanese novelties of th season. The blooms are very large and refined, with lon curling and drooping petals, building a superb flower colour, rich gold, tinted bronze. Shown by Mr. Marti Silsbury, Shanklin, Isle of Wight.

Ethel Thorp.—A very large incurved bloom of goo even form, having florets of medium width; colou silvery pink. Shown by Mr. H. W. Thorp, Durrington Worthing.

FRUIT CLASSES.

Three bunches of Black Grapes: First, Sir Walpol Greenwell, Bart., Marden Park, Caterham (gardene Mr. W. Lintott), who showed three handsome bunches o Black Alicante; second, Lady Tate, Park Hill, Streatha Common (gardener, Mr. W. Howe), also with Black Alicant



THE BEST NON-COMPETITIVE GROUP AT THE CRYSTAL PALACE (SHOWN BY MR. NORMAN DAVIS)

Three bunches of white Grapes: First, Sir Walpol Greenwell, Bart., with well-finished bunches of Muscat o Alexandria.

Three bunches of Gros Colmar Grapes: First, T. L Boyd, Esq., North Frith, Tonbridge (gardener, Mr. A. C Horton); second, Sir Walpole Greenwell, Bart.

Six dishes of culinary Apples; First, the Rev. O. Turne Weybridge (gardener, Mr. A. Basile), with Warner's Kin and Emperor Alexander; second, T. L. Boyd, Esq Tonbridge.

Six dishes of dessert Pears and six dishes of desse Apples were both won by the Rev. O. Turner.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE ordinary monthly meeting of this association wa held at 5, St. Andrew Square, Edinburgh, on the evenin of November 1, when there was a large attendance. Th exhibits on this occasion were numerous and of considerabl interest, one in particular showing the mild character o the season in the Edinburgh district. This was an exhibi of upwards of 200 varieties of Chrysanthemums cut fro the open border that day and shown by Mr. A. Thomson Dean Gardens, Edinburgh, a noted cultivator of thes flowers. Other Chrysanthemums shown were a bronz seedling named Hon. Mrs. Davcy, exhibited by Mr. W Robertson, Pilrig House, Edinburgh, for which th exhibitor received a certificate of merit; a yellow on named Mrs. Robertson, sent by the same gentleman; white seedling, exhibited by Mr. J. Macgregor, gardene to Mr. W. Younger, M.P., Auchen Castle, Moffat; an one called Katie Glen, from Mr. J. Craig, nurseryman Stirling. Messrs. J. Grieve and Son, Edinburgh, exhibite a fine plant of Lycaste Skinneri and thirteen varieties o Cypripediums. Other exhibits came from Mr. John Downie and Mrs. Algie.

THE GARDEN.

No. 2035.—Vol. LXXIV. November 19, 1910.

CONTENTS.

The Bog Garden and its Formation .. 569
Notes of the Week
Forthcoming events 570
Civic honour for Mr. Frank Cant.. 570
Horticultural Club meeting 570
Correspondence
Staking fruit trees.. 570
Grape Gros Guillaume 571
Raspberries and Blackberries for bottling 571
Gardening of the Week
For the South and South Midlands.. 571
For the North and North Midlands.. 571
Fruit Garden
The American blight or woolly aphis .. 572
Coloured Plate
Apple Rev. W. Wilks 572
Greenhouse
Notes on Orchids .. 572
Flower Garden
Sweet Pea chat .. 573
A rare hardy plant 573
Iberis and Sempervivums in the rock garden .. 573
Trees and Shrubs
Unusual methods of growing Wistarias 574
Berberis concinna.. 574
A little-known Japanese shrub.. 574
Kerria japonica .. 574
Rose Garden
New Roses of the year 575
Rose Dorothy Perkins as a weeping standard 575
Gardening for Beginners
Garden work week by week 576
Planting Box edgings 576
Cucumbers in winter 577
Winter-flowering Begonias 577
The Town Garden.. 577
Nursery Notes
Messrs. Laxton Brothers 578
New plants.. 578
Answers to Correspondents
Flower garden .. 578
Greenhouse 679
Rose garden 579
Fruit garden 580
Miscellaneous .. 580

ILLUSTRATIONS.

Mr. Frank Cant 570
Young Apple shoots attacked by American blight 572
Apple Rev. W. Wilks .. .. Coloured plate
A rare hardy plant: Kirengeshoma palmata .. 573
Iberis and the Cobweb Houseleek in the rock garden 574
A weeping tree of Rose Dorothy Perkins 575
How to plant Box edging 576, 577

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE BOG GARDEN AND ITS FORMATION.

Of the many phases of open-air gardening, none, perhaps, is fraught with greater possibilities, and none, certainly, possessed of greater charms, than the bog garden if well and rightly conceived. It is in this type of garden that we see plants grow, flourish and blossom that too frequently are met languishing for the moisture they love in the open border. Indeed, one of the great charms of bog gardening is that the plants thrive and grow apace, and that nothing droops or dies, simply because the subjects are rightly placed and constantly provided with the moisture so essential to their well-being. But in the bog garden, as in all else, there is just the possibility of the strong crowding out the weak—just the possibility that by one false step, made unwittingly, a plant may be introduced that may prove a nuisance for years. Hence, at the outset, there is the same need for discretion and for that close, intimate knowledge of the subjects chosen for the work, of their slow or quick growth as well as their ultimate development, as there is in any other phase of gardening work.

The host of plants benefiting by constant supplies of moisture during a hot season may tempt some to introduce those that intrude their presence in all directions, or that quickly choke or overrun others whose finer attributes render them far more desirable for such a place. Of such as the former many examples might be given, though one, the Epilobiums, will suffice for all purposes. Here we have a small group of rapidly increasing plants that appear to grow all the year round, sending out such vigorous stolons or underground shoots or stems which, springing up some distance from the original, soon make their presence felt in their new homes. For such as these, then, welcome as they are in the wild garden, there is no room—there should certainly be no place—in the bog garden we have in mind, and no quarter should be given to the smallest seedling which might appear. Thus it will be seen that, in our opinion, a bog garden should not be a sort of dumping-ground for any and every moisture-loving plant; rather should it be a spot—an adjunct to the garden proper if you will—to be enriched and beautified with the choicer subjects of other climes as well as those of our own land, subjects which, revelling in moisture, know no happier place than the natural bog.

But some may say, very few gardens are possessed of or include a naturally boggy spot, hence, if we would grow such things as delight therein, an artificial substitute must be arranged. In connection with this not infrequent question arises the all-important point as to whether the abode for such plants must be made watertight. The correct answer depends not a little on the available supply of water and equally on the nature of the subsoil. Where a retentive, plastic clay soil exists, a veritable driblet or trickle of water will maintain the soil in a state of semi-saturation, sufficient, indeed, for all purposes. On the other hand, where the subsoil is of sand or gravel, a slight excavation of this will be required to admit of the introduction of well-tempered clay, than which nothing is so good or so natural. A lowering, too, of the ultimate surface soil is desirable in those instances where a light soil obtains, to admit of the water from the rainfall finding its way into the bed.

In all large gardens in hilly districts, the forming of an artificial bog garden or bed is quite an easy matter. The ideal condition for such is, when a fountain basin exists on the terrace lawn, with the overflow tumbling into a rock garden pool a few feet below, and in turn trickling away into the woodland lower down, where it can be used to advantage for the purpose we have in mind. In just these happy circumstances, many years ago I spent much time in adding beauty to a phase of gardening not then common, and where the founder of the garden delighted on occasion to roam. An opening in the wood gave all that was desirable, and with sun and warmth and varying degrees of moisture a large area was furnished with the plants varying from such carpeting subjects as Anagallis tenella, Sibthorpia europæa, Linnæa borealis and Pratia angulata to the giant Royal Fern, Osmunda regalis, of several feet high and through.

There are also peat-loving and loam-loving plants, handsome Lilies as pardalinum and superbum that reflect their greatest beauty in the woodland bog garden, while dozens of others, Primulas, Trilliums, Sarracenias, Parnassias, Dodecatheons, Cypripediums in variety, Saxifraga Hirculus, Marsh Marigolds, Orchises, Pinguiculas, Droseras and the like may all be grown to perfection in a few square feet of bog. There are, of course, Primulas such as P. japonica and Saxifragas such as

peltata that are not quite suited to the smallest of these bog-beds, unless, indeed, they be given place at the outer margins where the chief supply of moisture enters. Just what is suited to any and every case will, of course, depend entirely upon circumstances. Happily there are plant giants like the Gunnera, Osmunda and Spiræa, together with the miniatures I have already named, that make bog gardening possible in large and small gardens alike, and where the plants of our own marshes and woods may, with others from the higher mountains of Europe and elsewhere, jointly play their part in making this aspect of gardening one of the most fascinating of the year. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 21. — National Chrysanthemum Society: Meeting of the Floral Committee at Essex Hall.

November 22.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster; Lecture at three o'clock on "Plants in Congenial Positions," by Mr. James Hudson, V.M.H.

November 23. — Darlington Horticultural Society's Autumn Show.

November 25.—Aberdeen Chrysanthemum Show (two days).

Bagatelle Rose Trials for 1911.—Mr. Forestier informs us that trials of new Roses will be held at Bagatelle during 1911 and 1912. Raisers in the United Kingdom desiring to send their novelties for trial may do so. Not fewer than five plants of each variety should be sent, and these, if possible, ought to be in pots. They must reach the Rosery at Bagatelle before April 15, 1911, and must be accompanied by particulars of their parentage. All packages must be addressed to M. le Conservateur des Promenades, Roseraie de Bagatelle, Bois de Boulogne, par Neuilly-sur-Seine, en Gare de Neuilly, Port Mallot, France.

Horticultural Club meeting.—The next house dinner of the club will take place on Tuesday, November 22, at 6 p.m., at the Hotel Windsor. Mr. W. W. Pettigrew (Superintendent of the Cardiff Public Parks Department) has promised to talk about "The Aim and Scope of a Public Parks Department." The lecture will be illustrated with lantern slides. Owing to the nearness to Christmas there will be no house dinner in December.

Paris International Horticultural Show.—At the opening ceremony of the Paris Autumn International Show on November 4 last, our old correspondent, Mr. Harman Payne, was formally presented to M. Fallières, President of the French Republic, by M. Viger, chairman of the National Horticultural Society of France. Five years ago Mr. Harman Payne had the honour of being presented to President Loubet.

The National Vegetable Society.—A committee meeting of the above society was held on Tuesday, the 8th inst., for the purpose of dealing with the financial and other business relating to the exhibition held in September last, and to make arrangements for next year. After meeting all liabilities the society will have a substantial balance in hand, and the report of the committee, together with the balance-sheet, will be placed before the members for adoption at the annual general meeting to be held on December 6. Owing to the Royal Horticultural Society having fixed its exhibition of vegetables for September 26 next year, a date that the vegetable society found so successful this year, it was decided to arrange for the exhibition of 1911 to be held on Wednesday, August 30. Offers of prizes for this show have already been received by the committee, and others will be gladly accepted.

Civic honour for Mr. Frank Cant. The many friends of Mr. Frank Cant, and Rose-growers in particular, will be pleased to learn that he has been elected Mayor of the historic and important town of Colchester for the ensuing year. At the Braiswick Rose Gardens Mr. Frank Cant has raised many new Roses, and his name is a familiar one wherever Roses are grown. He is a native of Colchester, and has for many years taken an active part in the public affairs of the borough.

The Scottish fruit season.—The comparative prices obtained by the Perthshire fruit-growers last year and this will be realised by the returns paid the other day to the members of the Blairgowrie and Rattray Fruit-Growers' Association by their secretary, Mr. J. Strain, jun. It will be observed that the prices were much

MR. FRANK CANT.

higher this year than last, but the crop marketed was, of course, different. The average prices were: Raspberries, £13 8s. 9d. per ton, compared with £7 10s. 9d. last year; Strawberries, £28 2s. 6d., against £14 last year; and Black Currants, £37 6s. 8d., the same price as in 1909. The returns are, on the whole, considered satisfactory, and show the advantages of a well-managed association for the sale of the crops of fruit.

"The Botanical Journal."—Under this title the official organ of the Royal Botanical Society of London makes its appearance. The journal will be issued quarterly, and from the number before us it appears to be starting on an interesting career. The number in question contains several fine art plates in colour, some of them being reproduced from paintings and the others from photographs in colours taken direct from the specimens. The former are very effective, but the latter still leave much to be desired. The leading features dealt with in the October issue are the work of the Royal Botanical Society since 1839, the date of the Royal Charter; "The Flora of Victoria," by Alfred J. Ewart, D.Sc.; and an article which should appeal to both gardener and botanist, on "Our Native Lawns." This journal is published by Messrs. Page and Pratt (1907) of London, and the price is 1s.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

London County Council Parks appointment.—That gardeners throughout the world, whatever their station, will be in complete agreement with the emphatic protest raised in THE GARDEN on page 557 against the appointment of a military officer as Chief of the L.C.C. parks I have not the smallest doubt. But what are the gardeners doing to help themselves? Surely the matter should not be allowed to rest where it is in the belief that the protests of the gardening Press, prompt, valuable and to the point as they are, are all-sufficient. One wonders almost that the British Gardeners' Association had not, at so critical a moment, taken the bull by the horns and got together a meeting to publicly and openly protest against an appointment which is nothing short of the ludicrous. Failing this, every gardeners' mutual association in the United Kingdom has it in its power to pass a resolution condemning the action of a majority of the London County Council, and to forward a copy of such resolution to the chairman of that body. In doing so British gardeners will make it plain that they are not content to take such insults "lying down." More than this, such resolutions, couched as they should be in the forcible language the case demands, will not merely direct public attention to the injustice afresh, but will strengthen the hands of those members of the Council who so reasonably and ably championed the gardeners' cause in their absence. As president of the Kingston and District Gardeners' Mutual Association, I intend, at our forthcoming meeting, to do what I have suggested above, and if fifty or one hundred other associations will do likewise, some good might be done. In his opening remarks, the chairman of the L.C.C. Parks Committee said they were asked to appoint "not a chief gardener, but the chief of a department," quite ignoring the important fact that the "department" in question was made up of a vast series of gardens and open spaces that call for and demand the practical skill, judgment, foresight and intelligence of the best-trained gardeners in the land. To have placed in charge of such a department a military officer who is ignorant of gardening on so vast a scale jeopardises the efficient working of the department, and brings into ridicule the body that has been responsible for so hideous a blunder. —E. H. JENKINS, *Hampton Hill.*

Staking fruit trees.—As a rule I agree with the various methods of Mr. D. B. Crane as shown in his photographs which appear almost weekly in THE GARDEN; but in the matter of staking fruit trees I cannot agree with the system advised. The stake, especially at the top, is much too near the tree. The objection is this: As time goes on, rain, sun and wind will all affect the tar twine and straw with which he makes the tree fast, rendering the whole slack, and eventually the bark becomes torn by constant rubbing against the top of the stake. Mr. Crane will doubtless say the trees that show signs of removal from the support should be attended to. That is all very well for the amateur with one or two trees in his garden; but in an orchard of several acres the circumstance is different. My plan is to place the stake not nearer than 6 inches to the tree, and this in itself is security from rubbing. To secure the tree to the stake I make use of a Hazel withe twisted into a loop at one end, which is secured round the wisp of straw which encircles the tree stem. From the tree the withe is twisted around the stake, then around the tree again, securing it by a knot in the centre between the tree and the stake. This will be found

quite secure, and if the straw or the withe should fall from the tree by any means, the distance the stake is from the tree prevents injury to the bark. Failing any sort of withe, thin galvanised wire will answer well, and is, in fact, more easily managed than withes. The extent of the injury caused to trees of all kinds is too serious a matter to allow to pass unnoticed, hence my drawing attention to it. The plan I adopt and advocate necessitates but one support instead of three.—E. MOLYNEUX.

Grape Gros Guillaume.—Referring to the note in your last issue on Gros Guillaume Grape (which is perhaps better known, even if incorrectly, as Barbarossa), your correspondent speaks rather disparagingly of this variety on the score of flavour. May I say that this is almost entirely a matter of cultivation. When half-ripened this Grape is absolutely nasty, but if given about the same treatment as the Muscats it develops a flavour equal to any other late Grape (except, perhaps, Mrs. Pince, which has a definite Muscat flavour), and far superior to Alicante, Colman and several other varieties which might be named. When strongly grown it produces immense bunches, which is, perhaps, rather a detriment with those who do not wish to exhibit, but only grow for dessert purposes, as ordinary sized bunches, and more of them, are more suitable for general purposes. Still, when well done it is one of the best late Grapes.—CHARLES E. PEARSON, F.L.S., *Lowdham Nurseries*.

Raspberries and Blackberries for bottling.—In a note on page 522 "A. A." advises planting the Japanese Wineberry presumably for its fruit. I should never dream of recommending planting it for other than ornamental purposes, but, all the same, would readily be disillusioned if it can be shown that the fruits of this Rubus have any special edible value for dessert or preserving purposes, and whether they can be grown so as to form a profitable commodity. There is just now a great demand for Raspberries and Blackberries for bottling, as that form of fruit-preserving is becoming very popular, especially for exportation. Probably very few growers of fruit know how huge is the demand being made on home preservers in that one direction. A neighbour of mine who preserves largely purchased from one Surrey Raspberry-grower this year over 35,000 1lb. punnets of pulled fruits for bottling, as only in that way will the fruits come in whole and unbruised. As a result of this demand not only are larger breadths being planted, but higher culture is being given to old plantations, not merely in harder thinning, but in more liberal feeding, as it is the finest fruits which fetch the best prices. With the demand for the Raspberry as a bottled fruit is growing up one for cultivated Blackberries, and for that purpose the Parsley-leaved variety is in great request. I have had visits from two extensive Surrey growers to enquire where plants can be obtained and how to train and treat them, and I fully expect to learn soon that some thousands, if obtainable, have been purchased and planted. These will be found to do best in a position fully exposed to light and air, and generally are best when trained to wire trellises from 5 feet to 6 feet in height. The common wild Blackberry, however good it may be in some seasons, fruits rather too late and is not of sufficiently good quality for bottling as is the fruit of Rubus laciniatus when well grown. One grower who has a breadth of the Loganberry mentioned that he found that Bramble susceptible to insect attacks. It will be interesting to learn next year how far the new Lowberry compares with the Loganberry in that respect. But no opinion on the merits of the Lowberry is of value until it is the result of outdoor fruiting. If all it is said to be, then in a commercial sense it will not lack ample encouragement.—A. D.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

RIPE GRAPES.—Frequent inspection will be necessary to remove any decaying berries, and slight fire-heat required to maintain a good flavour in the berries. Where possible, the bunches should be cut and bottled, as too much fire-heat, used to assist in the keeping of Grapes on the Vines, is harmful. In cutting the bunches for the purpose of bottling, sufficient wood must be retained to allow it to reach the water.

Pot Figs.—Providing the trees have been thoroughly cleaned they may be started. A house that will accommodate a bed of leaves for plunging is the most suitable. The pots should be raised on brick pedestals and the leaves filled in round them. A steady, moderate bottom-heat of about 60° Fahr. is sufficient to commence with, and the night temperature of the house 55° Fahr. Syringing the trees on bright days must be attended to.

KITCHEN GARDEN.

Peas.—A sowing may be made on a warm border that has been previously prepared. The Peas should be well dressed with red lead as a safeguard against mice. Fairly shallow drills are advisable for this sowing. Chelsea Gem, Little Marvel and Daisy are good varieties for the purpose.

Globe Artichokes.—In these gardens Globe Artichokes do not require any covering, yet in many districts they will not pass through the winter without protection. Some light, dry material is most suitable, well worked round the growths. Bracken is perhaps the best thing, as it lies loose and yet wards off a great deal of frost.

Jerusalem Artichokes.—More flavour is maintained in these by leaving them in the ground and taking the roots as required for use. As a safeguard against a spell of hard weather, a small quantity should be dug up and buried in soil under Laurels. Here they will be ready to hand when the open ground is too frost-bound to allow of digging.

Broccoli.—These will pass through the winter in greater safety if laid over with the tops of the plants facing north. The simplest way is to take out a hole on the north side of the roots, insert the spade in the opposite side, and turn the plant over. As the soil is removed from the plants in the next row it may be used to fill up those already turned.

FLOWER GARDEN.

Gladioli.—The corms of all the late-flowering varieties should now be lifted, and, providing the stems are not too much decayed, they may be tied up in bunches to dry. If the corms will not hang on the stems, they may be placed on shelves, thinly, carefully naming each variety to prevent mixing. In districts where the early types do not pass through the winter very well, protection must be given. Bracken laid over the beds very lightly will keep a considerable amount of frost away from the young growths.

Roses.—This is an excellent time for propagating by cuttings. The present season's growth makes the most suitable cutting, providing it is taken from the plant with a heel of the older wood attached. The top of the growth may be cut off, leaving the cutting about 9 inches to 12 inches long. A shady, moist border is the best place in which to root the cuttings, and they should be laid in in rows 1 foot apart and about 9 inches apart in the rows.

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FOR THE NORTH AND NORTH MIDLANDS.

KITCHEN GARDEN.

BROCCOLI.—In many districts this very useful vegetable is difficult to keep over the winter. It has a tendency to make soft growth in a fine autumn like the present one, with the likelihood of suffering considerably from frost when it sets in. To counteract this softness in the plants it is a good plan to lay them over on their sides with the heads pointing north.

Digging.—The sooner all vacant quarters in the kitchen garden are manured and dug the better. Especially is this necessary on heavy land. Dig deeply and leave the surface as rough as possible. Some prefer to ridge the ground, but if the soil is very stiff, and should the winter prove to be rather mild, there may be a difficulty in forking down the ridges in spring, as only the outsides are pulverised by the weather.

Double Digging.—This is one of the very best methods of preparing ground for vegetables. It takes less time than real trenching, and with soil of only moderate depth is preferable. It is also an excellent method of breaking in a bad subsoil and making it fit for trenching at some future time. By this method of digging the subsoil is not brought to the surface, but is well broken up and mixed with rough manure, leaves or garden refuse. This has a very beneficial effect on all poor, shallow soils. Should the subsoil be of good quality, it can, of course, be brought to the surface.

Trenching.—It is unwise to deeply trench all kinds of soil, as the bringing to the surface of dead, inert subsoil is to court disaster. I once visited a large, new garden that had been trenched, and which failed afterwards to grow anything, and yet it was known that the soil formerly grew excellent agricultural crops. The reason for the failure, of course, was that the good soil was buried away out of the reach of the roots. The only remedy was to re-trench the whole garden. This was done the following winter, and finer crops the next season no one could have wished for. If, instead of trenching 3 feet deep, the land had been bastard-trenched and a heavy coating of rich manure worked into the subsoil, a year's failure would have been avoided. Trenching, therefore, should be carried out intelligently, and not according to any hard-and-fast rule.

FLOWER GARDEN.

Lifting Chrysanthemums.—After the first severe frost it is well to lift stock roots of all the early flowering Chrysanthemums. Even the hardy Massé family are safest in a frame during winter, as it is only when so protected that strong early cuttings are available. A good method of wintering the roots is to plant them in ordinary cutting-boxes, which can be placed in a frame until the end of January. If placed in a moderately heated pit or greenhouse at that time, abundance of nice sturdy cuttings soon appear.

Rose Planting.—I would remind readers that the earlier now this work is finished the better chance is there of success. Do not plant in wet, sticky soil, however, as that is bad for the plants.

Good Bedding Roses.—In our Northern gardens it is not every bedding variety that is worth growing. The following short list has given the greatest satisfaction for several years past: Lady Ashtown, Caroline Testout, Hugh Dickson, Liberty, M. Paul Ledé, Mme. Ravary, Le Progres, Captain Hayward, Viscountess Folkestone, Mrs. John Laing, Killarney and Mrs. David McKee.

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THE FRUIT GARDEN

THE AMERICAN BLIGHT OR WOOLLY APHIS.

THE appearance of this pest (Schizonera lanigera) is too familiar to those possessing Apple orchards to need description; but for the benefit of those who are about to commence the cultivation of Apples it is as well that a brief description of an enemy so deadly in its effects should be given, so that it may be known at sight and remedies for its destruction applied before it has had time to establish itself on the trees while they are young, as this is the time its eradication is comparatively easy.

Nicholson, in his "Dictionary of Gardening," very tersely describes it as follows: "This white cottony looking matter, which is so commonly found upon the bark of the Apple and other trees of a similar nature, belongs to a species of insect shaped somewhat similar to the green fly of the garden, but having much shorter legs, the females being wingless, while the males are winged; the latter appear in July and August. According to Dr. Leach it is not a true aphis, and he has included it in his genus 'Eriosma.' The latter differ from the aphis proper in being destitute of the tubercules near the end of the body, which in true aphides secrete honeydew."

The Result of Infestation.—The pest attacks not only the branches, but the roots as well, thus making it doubly difficult to get rid of. At first sight, in spring and early summer, it appears as a fine, white, cottony substance round the junction of leaf and branch, as shown in the illustration, and in the crevices of the bark of the trees. The insects are, with the exception of the head, entirely covered with these cottony filaments, and are furnished with a strong proboscis, by means of which they wound the bark and imbibe the life sap of the trees. Not only does this white substance succeed in concealing their deadly work, but it also protects the insects, more or less, from the effects of any insecticides which may be applied against them. It will be found that wherever they have made a lodgment, and are left undisturbed for any length of time, ugly scars are formed on the bark, and if the pest is not destroyed the whole tree becomes affected with those loathsome scars, and is then fit only for the fire. By the intervention of those interested in our hardy fruit-growing industry, the Government has passed a law making it compulsory to notify the presence of the Gooseberry mildew wherever it may be found, in order that this homely but important fruit should be protected from its deadly effect. Few, if any, will complain of this wise precaution; but, surely, if such effectual measures of safety are necessary to safeguard the Gooseberry from the ravages of mildew, it is a thousand times more necessary to protect the Apple from the more insidious, but not less fatal, effects of the American blight.

How to Destroy the Pest.—Until some measure of compulsion is authoritatively enforced to deal with this pest it is hopeless to look for its eradication. For instance, A, by determined labour and expense, may succeed in clearing his trees of its presence; but of what avail is this if his neighbour B's orchard is infested? No use whatever, as it is well known that dirty trees, even at considerable distances away from clean ones, soon communicate the blight to those which are clean.

OWEN THOMAS, V.M.H.

(To be continued.)

YOUNG APPLE SHOOTS ATTACKED BY AMERICAN BLIGHT.

COLOURED PLATE

PLATE 1413.

APPLE REV. W. WILKS.

AT each fortnightly meeting of the Royal Horticultural Society a number of new flowers are granted awards of merit or first-class certificates, but it is seldom that a new Apple gains this distinction. The many varieties of Apple now in existence comprise some of very high quality, hence a new-comer must possess very considerable merits before it can secure the coveted award. The variety Rev. W. Wilks, of which a coloured plate is presented with this issue, has the distinction of having gained from the Royal Horticultural Society an award of merit several years ago, and the higher award of a first-class certificate on September 13 of this year. It is a large culinary variety of remarkable cropping powers, and a maiden tree carrying five large fruits was illustrated in our issue for October 16, 1909. It was raised by Messrs. J. Veitch and Sons, Limited, of King's Road, Chelsea, its parents being Peasgood's Nonsuch and Ribston Pippin. In shape, appearance and cropping qualities it more closely resembles the first-named, while Ribston Pippin has imparted some of its crispness and delicate flavour to the offspring. Last year we saw many young trees of this new Apple growing in the firm's Langley nursery, and their vigour and free-cropping propensities were almost unique. We are indebted to Messrs. Veitch for the fruits from which our coloured plate was prepared.

THE GREENHOUSE.

NOTES ON ORCHIDS.

THE DISAS.

DISAS are represented by a small genus of showy Orchids which have more or less tuberous roots and green, lanceolate leaves arranged in a rosette-like form, and it is from the centre of these that the erect spikes are produced. The principal species is the vivid scarlet D. grandiflora, which is annually exhibited in such superb condition at the Horticultural Hall by Mrs. Bischoffsheim of Warren House, Stanmore. The spikes are from 18 inches to 30 inches high, and carry from three to seven large flowers, the lower sepals of which are scarlet, the upper portion being lighter and veined with crimson. It has been described as the "Pride of Table Mountain," and Bolus says it is "the queen of terrestrial Orchids in the Southern Hemisphere." Two others, viz., D. racemosa and D. tripetaloides, are also natives of South Africa. From the three just quoted several desirable hybrids have been raised, such as kewensis, Premier, the bright Veitchii, and Luna, a plant that is more frequently noted at the Royal Horticultural Society's meetings and other shows.

The flowering season is now past, and the time has arrived when any repotting should be done if the plants have filled their receptacles with roots. Healthy specimens will not require much disturbance beyond placing them in another pot two sizes larger, but any that are showing signs of retrogression must be thoroughly overhauled, taking away the old soil and dead roots, when a smaller pot will, no doubt, be necessary, while an inch or so of additional drainage may be given, and more care with water should be exercised until they recuperate. The rooting medium for Disas is rather different from that employed for the majority of Orchids, consisting of the best fibrous loam, one-half; peat, one-fourth; and the remainder made up of broken Oak leaves, chopped sphagnum moss and finely crushed crocks. The pots are filled rather less than one-third of their depth with drainage, over which is laid a thin portion of loam, while the mixture is pressed moderately firm and brought to the level of the rim. A good watering is then given, or sufficient to wet the whole of the compost, when no more will be needed for several days, and perhaps longer if the weather is dull.

A suitable growing position is the coolest end of the Odontoglossum division, where the surroundings are kept moist and ample fresh air is allowed whenever the elements warrant the opening of the ventilators; in fact, 2 inches or 3 inches on the top may be left on throughout the night. During the winter months progress will be slow, but with the lengthening days growth will advance, when a slight dew overhead will be of great assistance, not only in promoting healthy foliage, but in keeping down insect pests. If thrip or red spider appear, the plants may be dipped in a weak solution of nicotine insecticide or carefully sponged over, not forgetting the under surface of the leaves, where these foes usually congregate.

The late Dr. Smee of Carshalton, a keen orchidist of his day, usually stood his Disas and other cool-house subjects on stages, over running brooks, and

under the shade of trees for the summer months; but while not an advocate of such treatment, they might be placed in a frame with a north aspect. Wherever they are arranged it is essential that strong, direct sunlight does not reach them. SENTINEL.

THE FLOWER GARDEN

SWEET PEA CHAT.

VARIETIES CATALOGUED.

DURING the course of every twelve months the enthusiastic Sweet Pea lover has many things to irritate him; but nothing seems to get upon his nerves to the same degree as reading glowing descriptions of this or that novelty only to find when the order is forwarded that the stock is not to be distributed for still another season; to him then the names of writers and Sweet Pea specialists become anathema. Sometimes, I scarcely dare say often, the fault does not lie either with the maligned scribe or distributor, but with the grower himself, since he delays ordering until late in the season when the whole of the available seeds have been sold; nevertheless, he still blames someone other than himself, as it is not in gardening human nature to accept the responsibility of a mistake if it can possibly be put on other shoulders.

In previous years it has been the custom of THE GARDEN to defer the consideration of novelties until all the spring catalogues were issued, but on the present occasion an earlier start is being made, the Editor having specially written to all the leading specialists with a view to securing absolutely reliable information as to what varieties will be ready for disposal from now onwards until the stock has been sold out in the spring. If it were feasible, which it is not, for the Editor to allow me three or four whole pages for the discussion of novelties on sale, they could be disposed of in one issue; as, however, the limit is one column in each alternate issue, my task must necessarily extend over several weeks, but, in order to facilitate it as much as possible, nothing in the way of lengthy descriptions will be furnished, and for these readers are referred to the excellent catalogues issued by the respective firms; in these pictorial, as well as verbal, descriptions are given.

Nine varieties are listed as 1911 novelties by Mr. W. J. Unwin, whose reputation is so good that growers can rely upon his recommendation that all are worth growing. In regard to the supremely beautiful Mrs. W. J. Unwin, it is stipulated that only purchasers of seeds to a definite money value will be able to procure a supply, as the stock is so limited owing to the wretched seeding capacities of the variety; as this is indisputably the most refined of all the rose or red flakes, no reasonable effort ought to be spared to secure seeds. Eric Harvey, too, is of outstanding merit and entitled to inclusion in all collections, whether the primary object of culture is exhibition or the adornment of the garden; Nettie Jenkins is a waved Lady Grisel Hamilton and is one of the beauties of this attractive group; Mrs. H. D. Tigwell, rose flake on a primrose ground, is one of the charming waved varieties that are deserving of attention; while May Farquhar, deep blue; Freda Unwin, light blue; Mrs. R. Hallam, pale salmon; Madge Ridgard, white, suffused heliotrope; and Mrs. H. Chivers, primrose, suffused pink, complete the set, which is a goodly one.

Mr. F. J. Bell does not publish a special autumn catalogue, but he will be distributing Rosa Bell this season. It is a large Spencer, and the colour—rose pink with cream at the base of the standard—is always popular; it is a variety of considerable promise, and ought to be given a trial.

Mr. William Deal will supply, through the retail trade, his superb Scarlet Monarch. This is a magnificent Spencer that has a great future before it if its present promises are maintained, for it is all that one could desire as a Sweet Pea, and up to now has come perfectly true. We have seen Bertrand Deal on more than one occasion, and it has been previously catalogued, but distribution will commence this year for the first time. Those who admire size must have it, as it is one of the biggest blooms in cultivation; apart from that it is of excellent form, and the lilac rose shade is really delightful. Empress is another waved variety which may fairly lay claim to possessing size, form and substance, but the colour, with its suspicions of rose, purple and red, is not easily described, and is not a favourite with all the world.

Hallams content themselves with offering the outstanding novelties of other raisers, and they classify the four varieties honoured with awards of merit from the National Sweet Pea Society this season as well as Stirling Stent, the silver medal variety. It is unnecessary to allude further to the latter, while the names alone of the others need only be mentioned to bring them clearly to mind; they are Arthur Green, Cherry Ripe, Masterpiece and Mrs. Hugh Dickson. SPENCER.

A RARE HARDY PLANT.

(KIRENGESHOMA PALMATA.)

THIS remarkable plant is a native of Japan, and is evidently somewhat rare in that country, as it was not discovered till the year 1888. Then it was found in shady woods on Mount Ishizuchi in the province of Iyo at an elevation of 5,000 feet above sea-level. From the first packet of seed sent to Kew in 1891 only one plant was raised. After the first stages this grew away quickly and formed a good-sized plant, but did not flower freely till it was about six or eight years old. K. palmata is a hardy perennial, and makes a bush-like plant 3 feet to 4 feet high, with purple-spotted stems. The leaves are large and palmately lobed, while the rich yellow flowers are borne on terminal panicles. These flowers are remarkable in that the petals are very thick and fleshy, but they do not last long in perfection, quickly turning to white on the edges and falling off the plant.

It does not care to be disturbed when established, although it can be propagated by means of division when the stems have died down. The best plan is to cut small pieces off the old plant with some roots attached, and pot them up for a time till the roots begin to move and the stems begin to push up, when they may be planted out again. A shady portion of the rock garden or border is the best place for it, in rich soil with plenty of leaf-soil and sand mixed in. Seeds are sparingly produced, and raising plants from seeds has proved a somewhat tedious process, the greater portion damping off after germinating if they are not carefully looked after. W. I.

IBERIS AND SEMPERVIVUMS IN THE ROCK GARDEN.

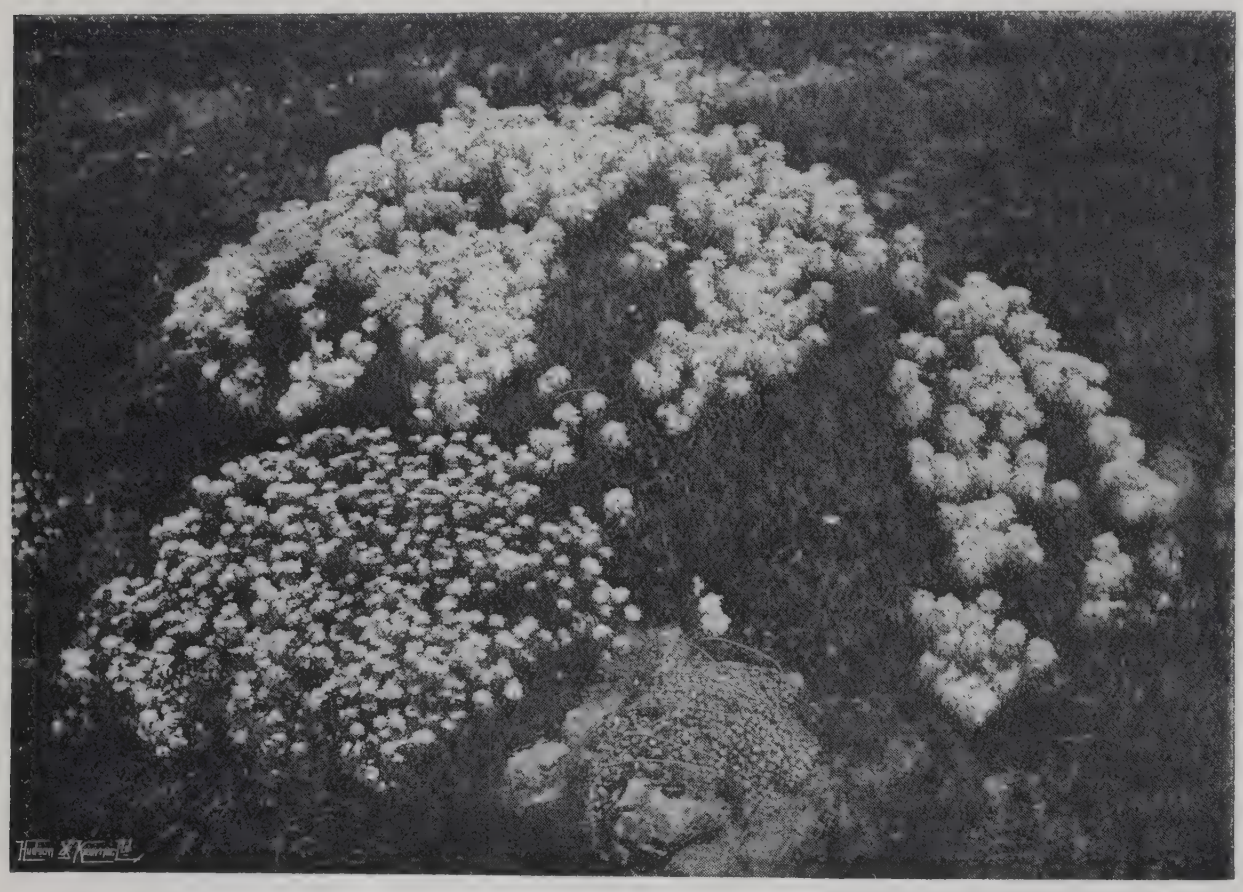
THE illustration on page 574 represents an outlying spur of my rock garden. It forms the westward wall or a little bay given up to various species of Cyclamen. It is built up of several blocks of stone, which form, as it were, two sides of a box, the main slope of the rock garden forming the back, and a more gradually sloping bank at the left, the other side. The portion of this enclosure filled in with soil forms a home for a group of Iberis sempervirens, and its variety Little Gem, the one to the left, in front. If these are clipped over annually just after flowering they need no other care, and the plants seen have been in their present positions for fifteen years at least. The evergreen leaves are beautiful at all times, and nothing makes such a dazzling mass of white on the rock garden as their annual flower show. They do not appear to be at all particular regarding the soil in which they are planted, and are certainly very easy plants to manage.

The large block of stone in front has for long been covered by a fine clump of the Cobweb Houseleek (Sempervivum arachnoideum), but of late years all the wicked creatures that despoil gardens have been in league to destroy it. A mole tunnelled through it first, and must have been surprised when he found himself in daylight and at the edge

A RARE HARDY PLANT: KIRENGESHOMA PALMATA.

of a precipice. I packed up the tunnel with good soil, and all seemed well until birds tore out lumps of my precious grey rosettes to hunt for insects living in that good soil; at least, I suppose that would be a bird's line of defence if caught in the act. But I cannot believe so many edible insects could find a home in so small a space as would be needful to justify the many eruptions the poor plant has suffered in the last five years. Now I am obliged to cover it over with wires and other ugly objects that suggest traps to a bird's eye, and even then they appear to get used to them after a time, for quite lately, since the photograph was taken, an evil bird has routed out the crown of the clump from between the wires.

This trouble with birds is the great drawback in growing the smaller Houseleeks. As soon as they have made a really good clump, birds in dry weather pull them to pieces. I cannot as yet hit upon any satisfactory way of preventing it. I expect it is only an individual bird or two that



IBERIS AND THE COBWEB HOUSELEEK (SEMPERVIVUM ARACHNOIDEUM) IN THE ROCK GARDEN AT MYDDELTON HOUSE.

visits all the Sempervivums. One that once obtains a particularly tasty or juicy worm by this means does not scruple to scatter a choice clump in the hope of finding another. It is hard to trap the right offender, and one does not like to find a robin, wren or hedge-sparrow in a trap intended for an unmannerly ruffian of a blackbird. Otherwise few things are better suited for a flat-topped stone or dry chink.

The typical Sempervivum arachnoideum, with its white cobwebs and bright red flowers, is as beautiful as any. The larger rosetted form known as Laggeri never makes so close and hard a cushion, and so is even more easily destroyed by birds. The closely allied S. doellianum is a good form, flowering very freely, and the flowers are of a brilliant red, but the rosettes have less cobwebbing than those of S. arachnoideum. All, when well grown, add a rather distinct appearance to the rock garden, particularly at those seasons when flowers are none too plentiful.

E. AUGUSTUS BOWLES.

Myddelton House, Waltham Cross.

TREES AND SHRUBS.

UNUSUAL METHODS OF GROWING WISTARIAS.

THESE plants are usually seen treated as wall plants and as climbers on trellises, but there are other positions which they beautify considerably, and I would recommend them for the embellishment of pillars, pergolas and division fences in the garden. I recently saw an uncommon arrangement for growing these plants. A number of tall, strong posts were fixed firmly in the ground at a distance of about 9 feet apart to form an octagon. From the top of each post chains were suspended from one end and joined to a central post at the other. The side posts were about 12 feet high and the central one 18 feet high. All were painted white. One specimen, a distinct variety, was planted near each post, and the branches were already growing rapidly and being trained up the pillars. Some of the flower-clusters were more than 1 foot long, and one could well imagine what a grand feature the erection would present in the course of a few years when the branches had clothed the posts and chains and met at the top of the central pillar. The white-painted pillars formed an excellent background to the delicate purple violet and light blue flowers.

The present time is a very good one for the work of preparing the ground and putting in posts and plants. There are many positions in gardens where a number of varieties may be planted, and even one specimen well cared for looks charming.

The Wistaria thrives best in rich, sandy soil. If the soil is naturally clayey it is advisable to take a little trouble and put in some of a lighter or more porous nature, as then the plants will prove more satisfactory in every way. When first planted do not fasten the shoots to the permanent pillars, as, owing to the natural sinking of both soil and roots, the branches would be "hung up." At first make the branches secure to temporary stakes, and then, when the soil has settled down, tie them to the pillars, posts or other permanent supports. The following are very beautiful varieties: Wistaria sinensis, purple; W. brachybotrys, violet purple; W. japonica, white; W. frutescens alba; W. multijuga, lilac purple; W. sinensis flore-pleno, double-flowered; and W. macrobotrys, white and bluish purple. B.

BERBERIS CONCINNA.

THIS is an interesting and showy Barberry from the Himalaya suitable for planting in a position where a tall-growing shrub would be out of place, for it grows slowly and takes many years to attain a height of 2 feet. It is of compact habit and branches freely, the branches being liberally clothed with more or less oval leaves half to three-quarters of an inch long, the upper half being armed with short spines along each margin. The chief peculiarity of the leaves lies in their glaucous under surface, which is effective when the foliage is stirred by the wind. The flowers are yellow and borne from the leaf-axils in May. They are followed by large red fruits, each of which terminates a slender, pendulous stalk an inch or more in length. Like the majority of the Barberries, no special culture is required for this plant, for, given ordinary good garden soil, it renders a good account of itself. Seeds germinate freely and form the best means of increase. As a rule, seedlings have to be kept in nursery quarters for from two to three years before they are large enough to take care of themselves in an ordinary shrubbery.

A LITTLE-KNOWN JAPANESE SHRUB.

(DISANTHUS CERCIDIFOLIA.)

THERE are few rarer hardy shrubs than this interesting Japanese member of the Order Hamamelidaceæ, for it is only occasionally that a plant is met with in private collections, and one never finds it represented by more than a few examples in nursery gardens; yet it is a plant which is well worth attention from those whose gardens are situated in the Southern Counties. It has been known for less than twenty years, for though Maximowicz, during his explorations in Japan, had brought it to the notice of botanists as long ago as 1866, it was not until Professor Sargent succeeded in introducing it to the Arnold Arboretum about 1892 that its merits became known to cultivators of trees and shrubs. In 1893 a figure and description occurred in the "Garden and Forest" on page 214. In Japan it is said to form a bush 8 feet or 10 feet in height, with slender branches. The flowers appear in autumn from buds on the current year's growth. They are purplish in colour and Hamamelis-like in character. Its chief ornamental feature, however, lies in the rounded leaves, which turn to a lovely claret or reddish hue in autumn previous to falling. Sargent, in his "Forest Flora of Japan," page 42, describes it as one of the most beautiful shrubs he saw in Japan, and the thickets he describes as covering the steep hillsides must be wonderfully effective in autumn when the leaves have taken on their most brilliant colour. It appears to grow most satisfactorily in light, well-drained soil. D.

KERRIA JAPONICA.

(JEW'S MALLOW.)

FOR many years this plant was represented in gardens by its double-flowered form only, and even after the introduction of the single type a further considerable period elapsed before its value as a flowering shrub was recognised. Now, however, it is met with fairly frequently, and is sometimes represented by groups or beds. It is

a Chinese shrub, and was originally described from the double-flowered form which Thunberg called Corchorus japonicus. On the discovery of the single-flowered plant, however, it was renamed and placed in its present family. It is a native of China, and forms a bush 3 feet to 4 feet high, of denser habit and a weaker and more spreading character of the branches than the double-flowered form. The tendency to run about and increase itself by means of suckers is, however, not so apparent as in the double variety. The leaves are ovate and acuminate, with deeply serrated margins, while the golden flowers, which appear in April, are about 1 inch across. It is one of the easiest possible shrubs to propagate from cuttings, for young shoots 4 inches or 5 inches long inserted in sandy soil in a close frame root freely if taken during June and July. One item in its cultivation which is worth considering is the thinning out of the branches each year, taking care to remove the oldest right to the base. This keeps the plants thin, and a better supply of flowers and looser habit are the consequence. A variety with silver variegated leaves may also be planted, but it is of less value than the type. Some difference in the size of blooms is noticeable on different plants of the double form, and one with exceptionally large flowers used to grow in the gardens of the Royal Horticultural Society when at Chiswick. D. K.

ROSE GARDEN.

NEW ROSES OF THE YEAR.

(*Continued from page* 562.)

PRINCE E. C. D'ARENBERG (H.T., Soupert et Notting, 1909).—Colour bright scarlet, shaded maroon; flowers very large, full and of perfect form; vigorous growth. A cross between Etoile de France and Richmond.

Principal A. H. Pirie (H.T., Bernaix, 1909).—A free-flowering Rose, with large, full blooms of a silvery pink colour, salmon and cochineal centre. The blooms are carried on erect footstalks, which will make it an invaluable decorative Rose.

Princesse Marie Louise (H.T., Welter, 1909).—Delicate China rose, with deeper centre, large, fairly full and fragrant, very free and vigorous. A cross between two grand Roses, Mme. Abel Chatenay and Johanna Sebus.

Reliance (H.T., E. G. Hill and Co, 1908).—Lovely glowing pink flowers, base of petals creamy white. The outer petals are extra large and shell-like in shape, giving the half-open flowers a most attractive appearance.

Rhea Reid (H.T., E. G. Hill and Co.).—This is the only Rose of these raisers I am disappointed with. Its crooked neck condemns it as a garden Rose, and the colour is not at all what we like, although at times during a spell of bright sunshine it comes good. In a hot country it would be useful, for it possesses immense substance, but I do not think we want it in England. Amateurs would do well to be very cautious of all Roses shown from forced plants. Outdoors they are often totally different.

Rose Queen (H.T., E. G. Hill and Co.).—These raisers predict that this Rose will displace Killarney as a forcing variety. The colour is an intense rose pink, with yellow shading at the base of the petals. In form and size it is magnificent, the bud very long and shapely. It will be sent out in February, 1911.

Rose du Barri (H.P., B. R. Cant and Sons).—A semi-double Rose of exquisite colour, which gives the variety its distinctive name. I should say it will be a fine companion to Maharajah that was raised by the same firm.

A WEEPING TREE OF ROSE DOROTHY PERKINS.

Rosomane Narcisse Thomas (T., Bernaix, 1908).—A lovely Tea Rose; colour scarlet, shaded crimson and suffused apricot, very novel and distinct blending; growth vigorous, buds long and pointed, flowers large and full.

Senateur Mascurand (H.T., Pernet-Ducher, 1909).—Another of this raiser's wonderful yellowish Roses. Some may say we are having quite enough of them. Certainly they should be distinct. In this case the colour is sea amber yellow, with yolk of egg yellow in the centre, toning to light sulphur yellow. A very free-flowering variety excellent for garden culture.

Sheilagh Wilson (H.T., Dr. Campbell Hall, 1910).—A perpetual-flowering Carmine Pillar, minus the extraordinary vigour. The flowers are single, of huge proportions, and are carried upon upright growths. It is hardy and free and will be an excellent pillar Rose. In autumn it carries numerous heps.

Shower of Gold (Wichuraiana, Paul and Son, 1910).—Without a doubt this is the most lovely yellow rambler yet raised. The flowers are double, rosette-shaped, and of medium size for the class to which it belongs. It is almost of the colour of William Allen Richardson, not quite so much orange, a sort of blending of this Rose and Alister Stella Gray. As the Rose retains its rich colour to a great extent, the golden effect of a well-grown specimen is very marked. The delightful foliage, almost as large as W. A. Richardson and as glossy as Alberic Barbier, is a valuable feature that must not be overlooked.

Sodenia (Wichuraiana, Weigand, 1910).—I am not sure that this Rose will not surpass Excelsa. It is a flower of the Dorothy Perkins type, but of a bright carmine colour. As shown as Holland House it was very pretty, but to judge of its value over Excelsa one must grow them together.

Souvenir de Gustav Prat (H.T., Pernet-Ducher, 1909).—Another of the yellowish Roses. Colour sulphur yellow, splendid buds, and of true garden vigour, which will make it a useful novelty.

Simplicity (H.T., Hugh Dickson, 1909).—This is an almost single Rose, with immense, pure white blooms, which before they expand remind one of a huge Water Lily. Growth very vigorous, erect, with splendid deep green foliage. A grand Rose for massing in beds.

Soleil d'Angers (Pernetiana, Detriche, 1909).—A sport from Soleil d'Or and known as the Red Soleil d'Or. The colour is deep ochre yellow, edged vermilion. It possesses all the excellent attributes of fragrance and vigour which are peculiar to its parent.

Souvenir of Portland (H.T., Hugh Dickson).—It is quite fitting that the Rose city of America should have a Rose named in its honour, and it is a worthy sort, the form and size of William Shean, but of the colour seen in Exquisite. I should say it will prove a useful variety.

Souvenir de M. Hennion (H.T., Gamon, 1909).—Carmine, shaded with satin rose; very free and sweet. A cross between Camoens and Marie Baumann.

Symmetry (H.P., Paul and Son)—A seedling of Mrs. John Laing, with flowers deep carmine-crimson in colour. Its blooms, which are of fair size, are very shapely. It is an exhibitor's Rose, yet at the same time a good garden sort. P.

(*To be continued.*)

ROSE DOROTHY PERKINS AS A WEEPING STANDARD.

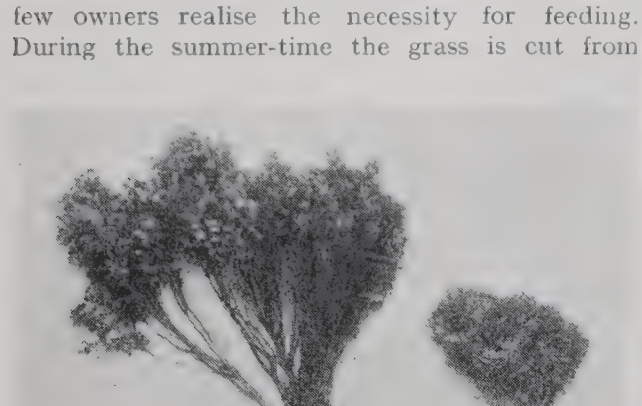
ALTHOUGH many new varieties of Rosa wichuraiana have been introduced since Dorothy Perkins was first seen, it still holds a foremost place in our Rose gardens, and in no form is its beauty seen to better advantage than when grown as a weeping standard. The illustration is of a remarkably good specimen, about 9 feet high, in the gardens of T. Fenwick Harrison, Esq., King's Walden Bury, Hitchin; the gardener, Mr. Hartless, is standing beside it to show its height.

GARDENING FOR BEGINNERS.

HOW TO PLANT BOX EDGING.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—There is no time better than the present for the renovation of old lawns. New lawns do not require special feeding until the lapse of several years from the time they are formed. Old ones do, but very few owners realise the necessity for feeding. During the summer-time the grass is cut from



1.—BOX EDGING BEFORE DIVISION. THE PLANT ON THE LEFT IS OVERGROWN.

them regularly; this work exposes the roots of the grasses to the burning sun's rays, and in the absence of showers during a rather long period at that season the plants suffer a considerable check. Such exposure does some good where lawns are mossy, because the greater part of the moss is well checked, if not killed outright. In order to maintain a lawn in first-rate condition there must be some return for the constant cutting of the grass. A generous top-dressing must be put on now. By generous I do not mean a great quantity of material, but high quality, as a too thick top-dressing would tend to the destruction of the grasses. When the weather is calm, sprinkle evenly a peck of soot on a square rod of lawn, and on the same space 3lb. of bone-meal; then give a dressing of a peck of well-rotted manure and two pecks of finely sifted rich loam. After the first rains have washed in the top-dressing material, roll the lawn every week, and when next summer commences the lawn will present a beautiful green carpet of grass. Liliums lifted from flower borders must receive attention now. Although frost will not kill the bulbs if the latter are exposed at this season, it is well to avoid such exposure. Place the bulbs in a cool frame, nicely burying them with fine leaf-soil or Cocoanut fibre. A light covering on the glass will be sufficient in frosty weather and very little water will be needed.

Vegetable Garden.—In light, sandy soils, Peas and Broad Beans may be sown at once; but on heavy soils it would be better to wait until next February to make the first sowing. Rats and mice attack the sown seeds in some districts, and so it will be advisable to roll the seeds in red lead before sowing them. Deep drills must not be made; but it is advisable to cover the seeds with dust-dry soil to a depth of at least 1 inch, and then add some of the original soil. Seeds so covered rarely rot in the ground. Select a very sheltered, warm border and, for preference, one on which the soil is raised. Autumn Giant Cauliflowers must be protected from frosts. Not only should the plants be turned towards the north, but several leaves must be broken down over each flower. Early Cauliflower plants now growing in cold frames must be fully exposed when the weather is favourable. Only replace the glass lights and give other protection when frosts come.

Fruit Garden.—The storing of Nuts for the winter must not be put off any longer. Cobnuts, Filberts and Walnuts can all be kept quite sound and fresh if they are stored in earthenware pots, the latter being buried in the soil in a naturally dry place in the open air. The Nuts must not be dried too much, else there will be some shrivelling. If they have been spread out on a shelf, or the floor even, in a shed or cool room for one or two weeks, they will be in good condition for storing now. The earthenware vessels must be well corked. The planting of fruit trees should be attended to whenever the weather is suitable. Never plant while the soil is sodden with water, but wait a few days for it to get drier. Make the holes larger than the spread of the roots; do not plant too deeply, and place a stake to bush and standard trees before covering the roots with soil.

Greenhouse and Frames.—Table plants now growing in warm greenhouses will require very careful watering. If well grown the pots will be full of healthy roots, and in order to maintain them in such condition the soil must never be saturated with water nor be allowed to become dust-dry. No further shading need be given, but full exposure to the light is desirable. Berried Solanums should be kept away from hot-water pipes, as the latter would cause the berries to shrivel. Plants required for use at Christmas must be lightly fed with weak doses of clear soot-water. All portable frames now facing the north must be turned to the south, as light and sunshine are necessary to all frame plants at this season. Keep the soil free from weeds and moss on the surface in Violet frames, and be careful not to tread on the soil, as it is detrimental to the growth of the plants. Remove every decaying leaf. A. A.

PLANTING BOX EDGINGS.

Box edgings are not so popular as they were twenty to thirty years ago, and it is a matter for regret that, more particularly in the suburbs of large towns, these live edgings to beds and borders are not adopted in preference to garden tiles. Dwarf Dutch Box should be used for edgings, although other forms of this plant are utilised for edging purposes when the other and better one is not available. The mistake is so often made of allowing the edging to grow on unrestricted, in which case the result is far less pleasing than it would be were proper methods of culture observed. Regular and systematic clipping of Box edgings invariably brings into effect growth of a dense, compact kind, and this must be considered most satisfactory.

Box edging will not succeed under the drip and shade of trees, neither will it do well in soil of a poor character or one that is unduly heavy in texture. Fortunately, both soils may, with proper treatment, be made to answer the requirements very well. Poor, thin soils may be enriched with good soil of a lasting nature; and that of a very heavy and retentive character may be lightened and made friable by the incorporation of leaf-soi and burnt garden refuse.

Box is a chalk-loving plant, so that heavy o light soils may be made more suitable by incorporat ing powdered chalk at the time of digging. Liftin and replanting may be done in the late autum with every prospect of success, although the wor of planting Box edgings may be done quite satis factorily at any time between October and March When new garden paths or walks are being formed the "laying" of the Box, as it is usually termed should be done before the gravel is placed on th paths. In the case of established paths the ol gravel should be drawn away from the sides, so a to allow ample space for the necessary trench t be taken out, and this prevents soil and grave from being mixed in the process.

Fig. 1 illustrates two distinct plants of Bo lifted from old edging that needed replanting The plant on the left very fairly represents th character of growth of Box edging when allowe to grow without the usual periodical clipping. I such a condition the live edging is most unsatis factory; moreover, it is distinctly harmful to man of the smaller flowering subjects growing withi the beds and borders. On the right of the pictur is shown a sturdy plant that has developed a dens mass of small growths and foliage as the result o being clipped from time to time. It is usual i preparatory work, after lifting the old plants, t shake the soil from the roots, and then to brea up the plant into rather small sprays, taking car in so doing to retain as many roots on each spra as possible. When dealing with plants of a mixe character it is a good plan to sort out the spray to two or three lengths, planting those o approximately the same length together. To d this satisfactorily it will be necessary to make th trench of sufficient depth to take each batch, s

2.—AFTER DIVISION. THE SPRAYS ON THE RIGHT MAKE THE BEST MATERIAL FOR EDGING.

that the whole of the Box may be of a uniform appearance above the soil. The sturdy plant on the right of Fig. 1 should divide up into severa very excellent pieces, and with such material there is little doubt that good results would accrue Fig. 2 shows divided sprays of the old plants depicted in Fig. 1. Note the long, unsatisfactory sprays on the left of the picture, and compare these with the two more promising sprays on the right of the same illustration. When dividing the old plants, quite a number of sprays without roots may be found. These pieces may be planted when material is scarce, and the results are sometimes unexpectedly good.

3.—OPEN TRENCH READY FOR "LAYING IN" BOX EDGING.

The ground where the trench is taken out should be perfectly level, and to assist in this matter a garden line should be used. The surface also should be made quite firm before commencing operations; this enables the operator to take out the trench to an even depth to suit the pieces that are to be "laid" or planted. Long, woody roots should be shortened back, so that the plants may be laid in with as little inconvenience as possible. Cut the trench in a vertical manner from 4 inches to 8 inches in depth, then proceed to arrange the divided pieces against the side of the trench, as represented in Fig. 3. When adjusting these divided sprays in position, they should be arranged so that they just touch one another and are evenly disposed some 2 inches to 3 inches above the surface soil. As the sprays are laid in position, sufficient soil should be filled in to keep them in their place, and in this way the work should proceed throughout. As soon as the edging is completed, fill in the soil, treading this in firmly, and finishing off neatly, as shown in Fig. 4. Here and there it may be necessary to use the shears to nip off any shoots that may interfere with an even finish of the sprays. The trimming of Box edgings should be done either in August or during April. Box edging may be purchased from any nurseryman at about sixpence per lineal yard, and each yard purchased in this way should suffice to plant three lineal yards.

D. B. CRANE.

CUCUMBERS IN WINTER.

A SMALL glass structure, well heated, is an ideal place in which to grow Cucumbers during the winter months. If plenty of artificial heat cannot be obtained, it would be unwise to attempt to grow these plants through the winter. Cold air chills the plants, and then their leaves quickly assume a yellow appearance; the young fruits also turn yellow and drop off. The day temperature must not fall below 65° and may rise considerably from sun-heat. At night the temperature should never be lower than 60°. Seventy degrees by day and 65° by night would be more satisfactory. There will be no need to open the ventilators during the period between November and March. No syringing of plants must be done either; the necessary moisture can be obtained by damping the floor in the forenoon of a bright sunny day. More space must be left between the shoots than is usual in summer-time. Feeding must be very carefully done, also watering. When water is required, apply it in the morning, not at night; give very weak doses of liquid manure. I prefer to put on a light top-dressing once or twice during the winter season, using rich soil, leaf-soil and well-rotted manure in equal quantities. AVON.

WINTER-FLOWERING BEGONIAS.

THESE Begonias are becoming more popular every year. The plants are very free-flowering and their leaves are handsome. Even a few plants placed on the stage in a greenhouse or conservatory brighten up the structure considerably. The Gloire de Lorraine type is the most popular, and as the plants remain in flower for a long time when carefully attended to, their value cannot be over-estimated. At the present time nearly all the most forward plants are in full flower, and great care must be taken as regards watering, ventilating and feeding. Too much water must not be given, of course, and it is equally important that the soil be kept sufficiently moist; if it gets almost dust dry the flowering period of the plants will be considerably shortened. When the soil is becoming dry, give sufficient water to thoroughly saturate the whole of the soil in the pot, and if stimulants are applied, let them be given a few hours after a watering with clear water. Always give weak manure-water. Keep the plants near the glass and ventilate freely without causing a draught directly upon them. B.

THE TOWN GARDEN.

WINDOW-BOXES.—In not a few instances the window-boxes in town gardens receive almost the same attention in winter as in summer. At the present time the soil which has done good service through the summer should be renewed or enriched by manure, paying some attention also to the condition of the drainage. By turning the soil out entirely and thoroughly cleansing the boxes the operator is doing all that is in his power to secure healthy surroundings for the plants. The drainage should consist of oyster shells, broken pots, or well-washed clinkers or cinders, anything, in fact, of that nature which permits of a ready passage of superfluous moisture. The bottom board of the box should have several holes in it to allow the water to escape, and with this in readiness the well-mixed soil should be returned.

WHAT TO PLANT.—The selection of suitable plants for a town garden window-box is often a matter of some concern to the owner, particularly in winter-time, and the names of a few likely to succeed may be of service. The following are of a shrubby nature: Retinospora plumosa, R. p. aurea, R. squarrosa, Cupressus erecta viridis, silver and golden Euonymus, and Aucuba japonica, which, with its mottled green and golden leaves, is one of the hardiest and best of town garden plants, be the purpose what it may. Any of these are available in small plants, *i.e.*, bushes of a foot or rather more in height, and, if obtained from a tree or shrub nursery a few miles from London, clean, fresh-looking examples may be obtained that will for may weeks brighten the forefront of the cottage or villa as much as flowering plants in their season. A few bits of the Creeping Jenny, or Lysimachia Nummularia, may be planted for trailing over the sides, and thus add a little to the array of greenery available and suitable in the circumstances, a point that is too often overlooked.

ALPINE PLANTS IN WINDOW-BOXES.—Very few, perhaps, have ever given a thought to utilising the hardiest of alpine plants for the purpose under consideration. All that is needed in such a case is a soil more gritty and less rich than for shrubs or other plants, together with a few bits of limestone, sandstone, or, indeed, any other rock suitable for the work. As a last and final resource a few bits of weathered clinkers might be used, and, much as I dislike such things, they are vastly superior in effect to shells of any description. By thrusting a few bits of either of the two first-named into the soil within the box so that only the rugged margins are revealed, a more picturesque result, when the plants take on a little growth, will be secured. A point of importance in planting alpines in this way is the tight wedging of the examples into their places, any loose planting being highly detrimental to their welfare. Here are some of the most attractive of these plants for the object in view: Saxifraga burseriana major, S. cochlearis, S. valdensis, S. longifolia, S. oppositifolia pyrenaica, S. apiculata, S. Boydii alba, S. cristata, S. lantoscana superba and S. Aizoon rosea. Silene acaulis, S. maritima fl.-pl., Phlox Nelsonii, Antennaria candida, Gentiana acaulis, Saxifraga densa, S. Guildford Seedling, S. sancta, with Campanula muralis and C. pulla, are also valuable because of their free carpeting character and usually abundant flowering.

PLANTS FOR DRY POSITIONS.—It sometimes happens that window-boxes occupy positions of much dryness, hence a few plants specially suited to such places may also be of service: Sempervivum arachnoideum, S. Laggeri, S. Reginæ Ameliæ, S. calcaratum, Antennaria tomentosa, Achillea Clavennæ, Lychnis Lagascæ, Iris cristata, Opuntia rafinesquiana, O. humilis, O. vulgaris, Umbilicus chrysanthus, Erinus alpinus, Linaria pilosa and Asplenium Trichomanes. In employing the above selection stones need not be utilised provided the soil mixture is made up of not less than one-third of old plaster or mortar taken from old buildings. In such a mixture these plants delight, for there is less risk of the plants becoming too damp at the root, and it must be borne in mind that a waterlogged soil would be very detrimental to plants which are natives of dry and desert regions. E. H. JENKINS.

4.—AFTER PLANTING THE TRENCH IS FILLED IN AND WELL TRODDEN DOWN.

NURSERY NOTES.

MESSRS. LAXTON BROTHERS.

THE name of Laxton is known throughout the civilised world in connection with Strawberries, and the firm can claim to have done more, at least in recent years, than any other in the raising of high-class new varieties of this luscious fruit. We have on previous occasions given particulars of this branch of the firm's work, and do not propose to refer to it in detail now, but rather to draw attention to the excellent work that is being done in other directions.

Situated in the ancient town of Bedford, the nurseries cover an area of over seventy acres, the soil consisting for the most part of good alluvial loam some 3 feet deep, and which is excellent for the formation of the fibrous roots and sturdy wood so much desired in young fruit trees, of which Messrs. Laxton have a very extensive and healthy stock. Many thousands are grown as cordons, pyramids, bushes and standards, all the leading varieties of Apples, Pears, Plums and Cherries being included. At the time of our visit we were greatly interested in the large numbers of bush Apples, ranging in age from two to four years, that had been worked on the Paradise stock, over 30,000 of these being in prime condition for sale. Such popular varieties as Newton Wonder, Allington Pippin, Cox's Orange Pippin, Bramley's Seedling, Worcester Pearmain and Lane's Prince Albert are grown by the thousand. Cordons of both Apples and Pears were to be seen in large quantities, and the firm finds that there is an increasing demand for these where extra fine fruits are required, and, of course, they are excellent for clothing pergolas in the fruit or kitchen garden.

We were also pleased with the large stock of trained Peaches that we saw at these nurseries, many of them measuring 10 feet across. Gooseberries, Currants and Raspberries are grown by the acre, and the plants are certainly a fine and healthy lot. The two first named are now being grown extensively in cordon form by Messrs. Laxton, as growers are beginning to realise that larger and better fruit can be obtained from this style of tree, and in the case of Gooseberries the fruit can be gathered without scratching the hands, and all is easily protected from birds.

A number of excellent new fruits have been raised during recent years, and it may be interesting to give particulars of a few of the best. One that specially appealed to us when we saw it fruiting was Raspberry Laxton's Bountiful. It is a strong grower and crops very heavily. The fruit is larger even than that of the well-known Superlative, and the flavour is good and sweet. In colour it is bright crimson, and as the flesh is firm the fruit travels well. A Strawberry that the firm is sending out this autumn for the first time is Laxton's Maincrop. This is claimed to be a good, all-round maincrop variety, and Messrs. Laxton believe it will take the same prominent position as a maincrop variety that Royal Sovereign has as an early. Apple Beauty of Bedford is a new second-early variety that had for its parents Lady Sudeley and Beauty of Bath. It is a medium-sized fruit with a red skin, freely streaked with yellow, and is in season during September. The fruits are nearly as large as those of Lady Sudeley, and possess the firmness of flesh found in the other parent.

Red Currant Laxton's Perfection we saw fruiting two years ago when the firm had but a small stock of it, but now it has a large quantity of sturdy bushes. It certainly is a most praiseworthy variety from every standpoint, the large, brilliant deep crimson fruits frequently being borne in clusters of seventeen to twenty fruits. It is a good dessert variety, as well as being valuable for other purposes. In Plums Prosperity and Utility we have two new varieties of much merit. The first-named is a round purple fruit obtained by crossing Grand Duke with Czar, while the latter had for its parents Jefferson and Peach Plum. It is an oval fruit with a red skin, and as an early dessert variety should be much appreciated. Prosperity is an early culinary variety, coming in for use some ten days in advance of Victoria. Peach Laxton's Advance is a good early variety, obtained by crossing Early Rivers' Nectarine with Hale's Early Peach. It has an excellent flavour, a well-coloured skin, and ripens at the same time as Hale's Early, the fruits, however, being much larger. There were many more good novelties well worth mentioning if greater space were available.

We also noticed an admirable lot of Roses, including The Lyon and many other excellent new sorts, the bushes being a clean and short-jointed lot that should make good and rapid headway when transferred to their permanent quarters. The whole of the nurseries are under the personal supervision of Messrs. Laxton, and visitors are cordially invited.

NEW PLANTS.

SOPHRO-CATTLEYA DORIS, COBB'S VARIETY.—This very choice Orchid was shown by Walter Cobb, Esq., Normanhurst, Sussex (gardener, Mr. E. J. Salter). The plant shown bore a solitary flower about 5 inches across, of good substance and of a brilliant orange scarlet. No Orchid in the show received so much attention. It was awarded a first-class certificate.

Awards of merit were made to the two following Orchids :

Lælio-Cattleya Olivia.—This is a bigeneric hybrid between Lælia jongheana and Cattleya Schrœderæ. It is of a delicate mauve shade, with a beautiful deep golden lip. Shown by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Tetbury, Gloucestershire.

Calanthe Cooksoniæ giganteum.—A pure white flowering hybrid obtained by crossing C. vestita rubro-oculata gigantea with C. Harrisii. The plant, like most albinos, was by no means robust in growth. It carried one spike only with five flowers, of which four were expanded. Shown by Mrs. Norman Cookson, Oakwood, Wylam (gardener, Mr. H. Chapman).

Awards of merit were also granted to the following :

Carnation Mrs. C. W. Ward.—A very handsome variety of the pink-flowered section, the colour somewhat approaching that of the old Floriana, which for effect under artificial light was excellent. The flowers are of large size, with little or no suspicion of calyx-bursting. We think highly of the new-comer. Exhibited by Mr. G. Lange, Hampton.

Chrysanthemum Victorian.—A Japanese variety of bronzy salmon hue, the florets drooping in a graceful manner. From Messrs. Stredwick and Sons, St. Leonards.

Chrysanthemum Mrs. Frank Hill.—A single-flowered variety, the florets, which are coloured a bright pink, having a clear white base. From Messrs. Williams, Cardiff.

NEW FRUIT.

Apple Ard Cairn Russet.—This variety will prove a valuable acquisition as a late-keeping dessert Apple. In general appearance and size it closely resembles Rosemary Russet, but it is vastly superior in flavour. The flesh is firm and crisp, and although not highly coloured it is an attractive fruit. Shown by Messrs. Baylor Hartland and Sons, Ardcairn, Cork. Award of merit.

All of the foregoing novelties were shown before the Royal Horticultural Society on November 8, when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Herbaceous borders (*C. H. D.*).—Seeing that you wish to avoid blanks or flowerless spaces, or, at least, to reduce these to a minimum, the idea of a colour scheme had better give place to free grouping throughout. You might, for example, start with some of the better trumpet and other Daffodils and May and Darwin Tulips, associating these with Pæonies of the early and late sorts, preferably always in contrasting or harmonising colours with the bulbous plants named, with such Liliums as candidum, speciosum and tigrinum in the same groups to afford a succession. The Delphiniums might be associated with Hollyhocks or Miss Mellish Sunflower. Single and double flowered Pyrethrums might play their part in a spot where presently Lobelia cardinalis would be seen ; Anemone japonica in variety might be bounded round about with Alstrœmerias, and so forth. Meagre-habited plants like the Lobelia cardinalis, and Lilium candidum, which you suggest, would provide a good display provided the area allotted to them was virtually carpeted by the plants, while, conversely, Pæonies and hardy Fuchsias, both of spreading habit of growth, would hardly agree. Such things as Michaelmas Daisies, Kniphofias, Montbretias, Sunflowers in general, white and blue Scabiosa, Spiræas, Astilbe Davidii, and other late-flowering and effective subjects should be placed near to early flowering plants. Flag Irises and Aster Amellus, A. acris or A. ericoides in variety might be nearly associated, and in such a way that a succession of flowers is practically assured. For example, a blue or mauve Flag Iris may stretch across one of the beds, with the two Asters named on either side. In another instance Flag Irises and Helenium pumilum might be used, or, again, bringing the Irises to the sides, make a big centre of Scabiosa caucasica, and so on. The Spanish Irises would be best as adjuncts to other plants, occupying subordinate positions in groups because of their meagre habit of growth. Such work requires considerable thought, and, above all, a working plan as a basis of operations.

Plants for rock garden in early autumn (*K.*).—In the colours you name, or approximating thereto, such plants as Zauschneria californica, Z. splendens, Polygonum Brunonis, P. vaccinifolium, Acæna Novæ-Zelandiæ, Stachys coccinea, Pentstemon Menziesii, Saponaria ocymoides, Sedum spurium coccineum, Cyclamen repandum, C. hederæfolium, Sedum spectabile atropurpurea and S. rupestris would all be useful. In addition there are Colchicums, hardy Heaths and Gaultheria procumbens, with scarlet fruits, all affording touches of colour at the same time. Campanula Profusion, a neat hybrid with blue flowers, is valuable at the same period. With respect to the Roses, we think Electra and White Dorothy Perkins would be most likely to meet your requirements.

Plants for beds (*Regular Reader*). — We really think you possess too great a variety of plants already, seeing that self-coloured masses or beds of one kind of plant make the best display. One of the two circular beds might be filled with Pentstemon Newbury Gem, the other with Lobelia fulgens, both having a groundwork of white Violas. The centre bed might be wholly of Heliotrope, at first stopped, pegged down, and then allowed to grow and flower freely; or, as an alternative, the Heliotrope and Ivy-leaved Pelargoniums might fill the two end beds as above suggested, making the central one a mixed arrangement of Calceolaria amplexicaulis for the chief centre portion, with a broad band of scarlet Pelargonium next, and a margin of silver-leaved Pelargonium on the outside. You might also—for it is a matter of individual taste in the main—curtail the use of the subjects suggested for the end beds, and employ broad bands of mauve and blue Violas at the margin.

Plants for pergola under trees (*M. W.*).—You might use some of the many ornamental vines. They would, doubtless, grow satisfactorily, but would not be so likely to colour well in autumn as plants growing in more open positions. Vitis Coignetiæ, V. Labrusca and V. quinquefolia are likely kinds. Should you prefer flowering plants, we would advise Lonicera japonica var. halleana, Clematis grata and C. Vitalba. An ornamental foliage climber which would also suit is Aristolochia Sipho. Should any position be very dark and shut in, we advise you to plant an Ivy.

Caterpillars eating Geraniums (*A. A.*).—We think you would derive the greatest benefit from thoroughly dusting the plants with Hellebore powder. It should be applied when the foliage is damp, in order that it may adhere thereto. This will not injure the foliage, whereas by using paraffin emulsion, which has been recommended to us for the purpose, there is always a certain amount of risk. A solution of quassia is also worthy of consideration, particularly if the plants are syringed with it before the eggs are deposited. It is, of course, too late this season to do anything in the matter; but we should advise you another year to try the solution of quassia on a small scale, though we attach the most importance to the Hellebore powder.

Impoverished lawn (*C. H. H.*).—It is evident your lawn is greatly starved and poor, and would benefit if you could obtain sufficient short well-decayed manure to give it a good dressing, putting it on now. It will get washed in during the winter, and also pulverised by frost, and, later, may be more evenly distributed by moving it about with a coarse rake. Failing this dressing, then the next best thing is to obtain Native Guano and give the lawn that at the rate of a bag of one hundredweight to two rods area, letting that well wash in during the winter. You would find great benefit result from that. Heavy dressings of soot would do good also. So would dressings of very finely crushed sulphate of ammonia strewn over the grass next April at the rate of 3lb. per rod, repeating the dose in June. If you resolve to get Native Guano, the address of the Native Guano Company is 29, New Bridge Street, Blackfriars, London.

THE GREENHOUSE.

Rust in Gloxinias (*A Lover of Gloxinias*).—This is caused by a tiny, almost microscopic, insect, which attacks the leaves when quite young, and as they develop the mischief becomes apparent. It is very nearly related to, if not the same as, the Begonia mite, which often gives a good deal of trouble. A dry atmosphere is particularly favourable to the development of this pest, so that care should be taken to maintain a reasonable amount of moisture. Unless very closely examined a good deal of mischief is caused before the presence of these insects is suspected. They may be destroyed by vaporising with the XL All Vaporising Compound, which not only kills the living insects, but leaves a deposit of nicotine on the foliage that for a time renders it proof against further attacks. Dipping in a solution of nicotine and soft soap will also kill them, but this leaves an undesirable deposit on the foliage. The tubers are not injured by the mite, but next spring, as soon as the young leaves push up, the structure should be occasionally vaporised in order to at once destroy any that may be just hatched and ready to embark on their course of mischief.

About Eupatoriums (*Ignoramus*). — As there are more than 400 species of Eupatorium it is evident that from considerations of space we can only name a small percentage of them. Many of them are hardy, but presumably your question refers to the greenhouse kinds, of which, however, there are a great many distinct species. Those most generally cultivated for their flowers are: E. atrorubens, an Ageratum-like plant, with large, heart-shaped leaves and heads of purplish lilac flowers borne in early spring; E. ianthinum, a good deal like the last, but the leaves are not so velvety, while the flowers are of a paler tint; E. odoratum, a strong, upright-growing kind, with white flowers borne in autumn and winter; E. petiolare syn. E. Purpusii, one of the best of all, the heads of flowers being borne in great profusion—they are white, tinged with pink in the earlier stages; E. riparium, a loose-growing shrub, whose heads of white flowers are borne in autumn—from its loose habit it is sometimes grown in hanging baskets; E. trapezoideum, which forms a bold, bushy plant 5 feet to 6 feet in height, the flattened clusters of white flowers being borne in winter and early spring; and E. vernale, of dwarf growth, reaching only a height of about 18 inches—the flowers, borne in large, flattened, terminal clusters, are white, and are at their best during the early months of the year. All the Eupatoriums are readily propagated by cuttings of the young growing shoots taken during the spring months and given the same treatment as a Fuchsia. The autumn and winter flowering kinds can be stood out of doors during the summer months.

Crotons going wrong (*L. W. B.*).—The trouble with your Crotons must, we think, be caused by some local influence, for though there are traces of fungus on some of the spots, they are apparently attendant on, not the cause of, the decay. The appearance of the leaves are consistent with sudden changes of temperature, sometimes too low, and with the sun shining on the young leaves while they are still wet with moisture accumulated during the night. A low temperature, however, cannot be the cause of your trouble if, as you say, fire-heat is applied every night. One thing we noticed is that the leaves sent are unusually soft and succulent in character, which leads us to suggest that very possibly you would experience a greater measure of success if the plants were less coddled, as the young growth would be firmer and, therefore, less liable to injury from slight causes. Some of the varieties named by you are among the most delicate of Crotons.

Flowering Ismenes in pots (*A. B. H.*).—The easiest of the Ismenes to grow in pots is Ismene calathina, which flowers about midsummer. When in bloom the deep green, strap-shaped leaves are well overtopped by the flower-scape, which reaches a height of 2 feet to 3 feet. The flower, which is powerfully scented, is formed of a funnel-shaped tube, divided at the mouth into six narrow segments. In the centre is a large cup or corona over 3 inches across, which consists of six lobes, each lobe being notched in the centre and fringed along the margin. The colour is white, shaded inside with green. The treatment needed, commencing with the winter, when dormant, is this: A good bulb will require a 6-inch pot, which must be clean and effectually drained. A suitable compost may be made up of two parts good yellow loam to one part of leaf-mould, and a sprinkling of silver sand. The bulb must be potted at such a depth that the upper part is just below the surface of the soil. If this is done in February the plant should be stood in the greenhouse and given but little water till the new leaves are pushed up. After this an increased supply will be necessary, and when the pot is well furnished with roots water may be freely given. An occasional dose of liquid manure will be beneficial, but do not give any after the flowers show until they are past. When this stage is reached the plant should be encouraged to make its growth for another season's display. It must be given a good position in the greenhouse, and occasional doses of liquid manure will be helpful. Towards autumn it will show signs of going to rest, when water must be lessened, and during the winter it may be kept quite dry. In February it should be repotted. Other species are I. andreana and I. Amancaes, but, though they need the same treatment, they do not, as a rule, flower as freely as I. calathina.

ROSE GARDEN.

Dark red Rose for bedding (*Miss A. M.*).—Marquise de Salisbury is not a favourite with everyone who plants Roses in masses, although it is, without doubt, a most valuable sort. Princesse de Sagan is a glorious colour, but its branching, sprawling habit is against it. A splendid sort would be Chateau de Clos Vougeot, perhaps the very best dark bedder we at present possess, although it has not the ideal erect habit. Still, it is a splendid colour and richly fragrant, and its spreading growths could be tied upright without much trouble. Friedrichsruh is another beautiful sort bearing plenty of blooms of a dark blood red colour. If possible, you should plant General Macarthur. It is not a very deep colour, but it is very bright, and altogether a splendid bedder.

Manure for Roses (*G. S.*).—It is well to blend the manure with the soil, but it is not essential that the roots should be near the surface, providing there is a good larder of food below; in fact, those who grow their Roses on the seedling Briar can always rely upon having a grand autumnal display when the Briar cutting plants are shedding their leaves and ripening off. If the manure be well decomposed, as it should be, no harm can be done to the roots if they come in contact with it. Most of our leading amateur growers believe in deep cultivation, and if they desired the roots to be near the surface, why trench the soil deeply? Roots of Roses will run a great depth for food, a fact which many of us have had cause to be thankful for in hot seasons.

Roses that carry their blooms erect (*Lieutenant-Colonel H. S. D.*).—We can well understand your desire to obtain such Roses, as undoubtedly, from a decorative point of view, a Rose loses much of its charm when the flowers droop in the same manner as do Maman Cochet and Mrs. E. Mawley. Unfortunately, the Lyon Rose has this bad habit, but we do not see how you can omit such a Rose from your collection. The others of your list all carry their blooms erect and are splendid Roses, but Mildred Grant is rather a poor grower. Of the newer Roses, the following can be recommended for your purpose: Earl of Warwick, Countess of Derby, Dr. O'Donel Browne, Elizabeth Barnes, Entente Cordiale (Pernet), Florence Edith Coulthwaite, George C. Waud, His Majesty, Jacques Vincent, Joseph Lowe, Kronprinzessin Cecilie, Laurent Carle, Mme. Maurice de Luze, Mme. Melanie Soupert, Mme. Segond Weber, Margaret, Mrs. Aaron Ward, Mrs. E. G. Hill, Mrs. Peter Blair, Mrs. Theodore Roosevelt, Souv. du Rosierister L. Rose Vilin, White Killarney, Walter Speed and Molly Sharman Crawford.

Rose Dorothy Perkins shedding its buds (*Reader*). — Usually dryness at the root is the cause of this trouble. These Rambler Roses, especially when planted near walls or trellises, are apt to become very dry at the roots, and in the growing season they need a lot of water, not a mere sprinkling, but a good soaking about once a week if the weather is dry. This should be done before the bloom-buds are seen, as sometimes if left too late the mischief is done. Probably

it would improve your plants if you had a trench dug out around them and filled in again with some good soil and manure. It is quite a mistake to cut out all the old wood of these wichuraiana Roses. Some of the healthiest should be retained; then in spring the lateral growths on such old wood, if cut back hard, will produce grand trails of bloom. Whereas very often some of the young wood is soft and unripe and would be best if discarded, the first produced of the young growths should be the best and, of course, these must be retained.

Rose foliage blighted (*G. D.*).—The foliage sent is affected with the fungus known as black spot. It is very prevalent this year, owing doubtless to the wet season this year and last. It is almost too late to hope to cure the disease this season, but you might have all fallen leaves gathered up and burnt, and then spray the plants with a solution made of Woburn Bordeaux Paste, which is sold by Messrs. W. Voss and Co., Millwall. In the winter have the surface soil for about 1 inch in depth burnt and the ashes returned to the beds. Soon after pruning commence to spray with the above, and continue at intervals throughout the season. You will thus keep this pest in check, also red rust, another very nasty fungoid disease.

FRUIT GARDEN.

Information about Orange trees (*F. E. S.*).—There is little doubt that your Orange trees, having been so long in the same pots, need a stimulant of some kind. This may be given in the shape of weak liquid manure, but being unpleasant to use it is for indoor purposes generally superseded by one of the many concentrated manures that have of late years become so popular. We advise you to top-dress your plants instead of repotting them. In the first place, as much of the old surface-soil as can be taken off without injury to the roots should be removed. Then, on the surface of the soil give a sprinkling of Clay's Fertilizer or any concentrated manure that you may have at hand. After this the top-dressing may be applied, taking care to press it down moderately firm and level, and leave sufficient space for the plant to be properly watered. A suitable top-dressing may be made of a mixture of two parts loam to one part of leaf-mould or peat and nearly half a part of sand, the whole being well incorporated. It must not be sifted, but be well broken up and turned over with the hand. The manure may, if preferred, be mixed with the top-dressing; but applied as above advised no smell whatever emanates therefrom.

Treatment of the Lowberry (*A. B. H.*). The Lowberry, which is a hybrid between the Loganberry and a Blackberry, may be described as a gigantic, elongated Blackberry, jet black when ripe. It is well worth growing, and is perfectly hardy. Being of exceedingly vigorous growth it needs plenty of head room. It may be trained to horizontal wires, but in providing space for it you must remember that when established it will push out shoots that attain a length of 12 feet to 18 feet in one season. A favourite situation for it is over a large arch in the garden, where it will form an ornamental and, at the same time, useful feature. Any fairly good garden soil will suit it, but its especial delight is a deeply worked, moderately rich loam of not too light a nature. After the fruits are gathered the shoots that have borne them should be cut right out from the base, the best of the young ones being tied in to take their place for bearing fruit the next year. The Lowberry can be obtained from Messrs. Stuart Low and Co., Bush Hill Park, Enfield, who were given an award of merit for it by the fruit committee of the Royal Horticultural Society.

Mrs. Pince's Black Muscat and other Grapes (*G. Allen*).—Mrs. Pince's Black Muscat Grape is excellent as far as flavour is concerned, but it is a difficult Grape to grow well. It is seldom seen well grown even under the care of the best growers, and we are afraid you would be disappointed with it. Alnwick Seedling is handsome to look at, but of wretched quality, and Muscat Champion has now been practically discarded by good growers as unsatisfactory. It can only be well grown by experts, and will not keep for any length of time when ripe. Madresfield Court has a rich Muscat flavour and succeeds well without too much heat. We think our correspondent would be pleased with it. The Frontignans are the most delicious-flavoured of all Grapes, and to grow them properly they ought to have a vinery to themselves. They succeed best when grown in shallow, well-drained borders and in rather poor soil. The reason, we think, yours split is because the soil is too rich, and possibly too wet also for this variety.

Plum trees not fruiting (*F. Douglas Jones*).—Both the Pear and Plum branches you sent appear healthy and of vigorous growth. The fruit on the Pear shoots appears to us as produced by abnormally late blooms. Whether this is so or not, we would advise you to root-prune both your Pear and Plum trees and to withhold feeding them with cesspool water or anything else until they bear a crop of fruit, when they may be fed with advantage. In the summer, on light soil like yours they should have a mulch of farmyard manure laid on the surface of the soil as far as the roots extend to the depth of 4 inches. This will prevent evaporation from the soil and keep the roots moist. A good time to root-prune is early in November. Prune half the roots this year and half the next. The way to do this is to cut a trench 15 inches wide and 2½ feet deep halfway round the tree, the near side of the trench to be 2½ feet from the tree. All roots which are come in contact with in cutting this trench should be cut back with a sharp knife. The trench should be filled up again as soon as the pruning is over, treading down firmly and adding a little new fibrous loam to the point of each root cut back as the filling in goes on. The cut-back roots will soon emit a mass of new ones into this soil, and when both sides are done in the same way (in the second year) you will find that your trees will be converted from barren into fertile ones.

Miniature fruit trees and skylight (*E. F. H.*). We do not suggest that it would be possible to make a commercial success of fruit grown in windows or skylights, but it is quite possible to make a fair success with such appliances when the most that can be made is made of them. Moreover, it is possible to extract from such efforts an immense amount of pleasure and relaxation in the exercise of the hobby. We would advise our correspondent to start on a small scale first, say, two Apple trees, one Cox's Orange and one James Grieve, worked on the Paradise stock; two Pears, one Marie Louise and one Doyenné du Comice, worked on the Quince stock; two Plums and two Cherries. Now is a good time to pot these trees. When potted they should be plunged in ashes (after they have had a good watering) deep enough to cover the pots 3 inches. They should remain out of doors where plunged until just before they come into bloom in spring, when they should be placed under the skylight to protect from frost and to set their fruit. A fair amount of air must be given on all occasions when the weather is at all favourable while the trees are in bloom. They would do better if lifted out on the roof of the house in the daytime when fine and taken indoors at night. In very hard weather it would be necessary to have a little fire in the grate. The best soil to pot the fruit trees in is, say, one peck of best fibrous loam, half a gallon of old mortar or lime rubble, half a pint of soot, and the same of bone-meal and the same of lime. Mix well together. The above are the proportions. You can mix as much soil as you may want, but the proportions should be adhered to. Use as small pots as you can get the roots into comfortably. Your Strawberries would be better in a size larger pot. They would be better left out of doors in ashes until just before they come into bloom. Sow Tomato seeds at the end of February and grow on in pots through the summer. It is too late for this year now.

KITCHEN GARDEN.

Seakale and Asparagus beds which have been neglected (*Beginner*). — Cover the Asparagus bed over now with a covering of half-rotted farmyard manure 3 inches deep. The bed will not require any more done to it until the middle of March, when the manure (the essence of which has been washed to the roots by winter rains) should be raked off into the path. Then give the bed a dressing of nitrate of soda (it is better than salt) at the rate of two handfuls to the square yard, and cover the bed over again to the depth of 5 inches with the manure taken off mixed with some soil from the path or alley by the side of the bed. This will keep the surface of the bed from drying up, and will partly bleach the "grass" at the same time. If the Seakale roots are poor, the best way will be to make the best of them for next year where they are, and in the meantime plant a new bed from root-cuttings next March, from which a good crop can be had the following year. The crowns of the plants should be covered up 9 inches deep with soil early in March to bleach the growth and make it white.

Celery leaves for inspection (*H. L., Olney*).—The Celery is attacked by the fungus Septoria petroselini var. apii. The disease due to this fungus is very prevalent this year. Remove affected leaves as far as possible and badly attacked plants and burn them. Spray the remainder with Bordeaux mixture. Take care to destroy by fire *all* the remains of the plants. Let none be dug in or put on the rubbish-heap. Grow Celery as far from this spot as possible next year.

MISCELLANEOUS.

Seaweed as manure (*Pipkin*).—Seaweed is rich in potash and soda compounds, and is specially useful in the growth of Potatoes and Turnips, or any other plants which contain much water in their tissues. We have no doubt it would be suitable also for the crops you mention, but as this manure is poor in phosphates it would be improved for your purpose by the addition of a light sprinkling of bone-dust at the time it is applied to the land.

Curious fly for examination (*L. W.*). — The fly sent is a specimen of the wood wasp (Sirex juvencus). This insect comes from a larva which lives for several years in the wood of Larches and Pines, feeding upon and tunnelling in the tree, or even in the wood after it has been cut and made up. It may probably have come from the wood of which the frame is made if that is not many years old. They are not sufficiently numerous to be regarded as pests in this country, though more common abroad. Their appearance is decidedly startling, but they do no harm to man.

Information about basic slag (*Osler*).—Basic slag should be applied in the autumn at the rate of from 4cwt. to 8cwt. to the acre (1½oz. to 3oz. to the square yard). It answers best on clayey soil or on moist lands, and is very useful wherever phosphatic manures are desired on such soils. Clovers are, however, encouraged to grow by it, and if these are not desired in the lawn it would be best to avoid its use there. The effect of the dressing is seen in the succeeding year, and, perhaps, more still in the year after, and is not lost for several years. Perhaps very finely ground bone-meal would be better to use on the lawn, but without knowing further particulars it is not possible to definitely advise.

Duckweed on pond and shrubs for border (*B. G.*).—The only way in which you can clear your pond of Duckweed and Azolla caroliniana is to keep skimming off the weeds. A good plan is to fasten a canvas-covered ring of wire to the end of a long pole and skim with that. If you can empty the pond in winter and let frost act on the soil for a day or two, that would assist in killing the weed. If this is done, a little hay should be placed round important plants while the pond is empty. We should not advise you to plant Magnolia Lennéi on a north border, but the other plants you mention may be expected to thrive. The Magnolia would do well on a lawn. In addition to the shrubs you enumerate, the following may also be planted: Viburnum Opulus var. sterile, Cytisus præcox, C. albus, C. andreanus, Spiræa arguta, S. japonica Anthony Waterer, Rosa rugosa, Hypericum calycinum, Aucuba japonica for dark places and Diervilla florida.

Storing tuberous Begonias (*M. J. H.*).—Begonia tubers require during the winter to be kept dry and safe from frost. If they are growing in the open ground, a good plan is to lift them when they show signs of going to rest, and lay them out in a shed or on the stage of a greenhouse to allow them to become dry. In two or three days the stems will, in all probability, have dropped clear of the tubers, and any soil may be then carefully removed therefrom. After this take some dry soil and pass it through a moderately fine sieve. Then take some shallow boxes, place a layer of fine soil in the bottom, and on it arrange the tubers in a natural position, so close that they touch each other. Then cover with the fine soil, putting on sufficient to ensure that there is a slight layer of soil above the tuber. The box or boxes may then be stood on a shelf or stage in the greenhouse, or in any shed where they are quite safe from frost and not too damp. Some place them under the greenhouse stage, but the drip therefrom is apt to kill some of the tubers. If in pots, the tubers may be allowed to remain therein till quite dormant, when they can be turned out of the soil and treated as above recommended. With regard to the latter part of your letter, we may point out that after a time (say, four to five years) some individual tubers are apt to show signs of decay. This generally commences in the shape of brown spots, and the decay gradually eats into the tuber. The best varieties, being in many cases the more delicate, are more prone to be attacked than the coarser kinds.

Names of fruit.—*E. Ballard.*—The Pear is Jaminette. ——*Colonel F. W. B.*—Louise Bonne of Jersey.——*G. B. S., Exeter.*—1, Doyenné du Comice; 2, St. Luke; 3, Pineapple Russet. ——*J. C. Rugman.*—1, Gascoyne's Scarlet; 2, Early Red Calville; 3, Egremont Russet; Pear Durondeau.——*D. E. Lane.*—1, Round Winter Nonsuch; 2, Warner's King; 3, King of the Pippins; 4, Lord Derby; 5, Beurré Perran.

Names of plants.—*H. B.*—1, Aster amethystinus; 2, Aster trinervius.——*Hobden.*—Phytolacca acinosa. ——*J. Lurm, Gorey.*—Ligustrum lucidum.——*Miss Stewart.*—Lithospermum purpureo-cæruleum. It has blue flowers, and will grow almost anywhere.——*L. Lunn.*—1, Adiantum cuneatum Pacottii; 2, Selaginella Braunii; 3, Adiantum gracillimum; 4, Nephrolepis Piersonii; 5, N. exaltata; 6, Adiantum cuneatum variety; 7, A. c. grandiceps.——*E. Key.*—1, Gesnera cardinalis; 2, Pieris japonica. These numbers were fixed to specimens.——*Ilex.*—1, Leycesteria formosa; 2, Quercus pedunculata variety filicifolia; 3, Hippophae rhamnoides; 4, Tamarix tetrandra.——*C. H. Warwick.*—Quercus Ilex.——*A. R.*—1, Cupressus sempervirens; 2, Picea canadensis; 3, Thuya plicata; 4, Cedrus atlantica.

THE GARDEN.

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CONTENTS.

THE PERPETUAL FLOWERING CARNATION 581

NOTES OF THE WEEK
Forthcoming events 582
THE GARDEN Calendar, 1911 582
The Kippen Vine .. 582
United Horticultural Benefit and Provident Society 582

CORRESPONDENCE
Disease in Hollyhocks 582
New single Chrysanthemums 582
Rose Mme Edmée Metz as a standard 583
Fragrant Roses .. 583
Improving herbaceous plants .. 583

GARDENING OF THE WEEK
For the South and South Midlands.. 583
For the North and North Midlands.. 583

KITCHEN GARDEN
Notes on vegetables 584

FRUIT GARDEN
The American blight or woolly aphis .. 584
An old Irish Apple 585

GREENHOUSE
Tacsonias for the cool greenhouse.. 585
A new Orchid .. 585

ROSE GARDEN
New Roses of the year 585

FLOWER GARDEN
The autumn garden at Glamis Castle 586
Lilium philadelphicum 587

GARDENING FOR BEGINNERS
Garden work week by week 588
Increasing hardy perennials by division 588
How to treat the herbaceous border now 589
Tomato fruits in spring 589

THE TOWN GARDEN.. 589

BOOKS 590

ANSWERS TO CORRESPONDENTS
Flower garden .. 591
Greenhouse 591
Rose garden 591
Miscellaneous .. 591

SOCIETIES 592

ILLUSTRATIONS.

The new Sophro-Cattleya Doris, Cobb's variety .. 584
Apple Ard-Cairn Russet 585
The herbaceous border at Glamis Castle 586
Lilium tigrinum Fortunei in the autumn garden .. 586
Terrace and retaining wall at Glamis Castle 587
How to increase hardy perennials by division 588

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE PERPETUAL FLOWERING CARNATION.

ALTHOUGH the cultivation of the perpetual flowering, or American, Carnations on a large scale is a comparatively modern phase of horticulture in this country, we have become so accustomed to seeing and using these flowers during the winter and early spring months that it is already difficult to imagine how we were able to do without them. Their leap into popularity was as sudden as it has been successful, and it is not overstating the case to say that in a cut state the flowers form one of the most valuable commercial assets of the country during the dull days when outdoor flowers are conspicuous by their absence. In Covent Garden Market large quantities are disposed of daily, and the cultivation, packing and distribution of the blooms must provide employment for many thousands.

Although market-growers have not been slow to realise the possibilities of this race of Carnations, private growers have proceeded with greater caution, and even now there are many gardens where these plants do not find a home. The reason for this is difficult to find. Their cultivation certainly does not present any serious difficulties, as the only protection needed is a temperate or moderately warm, well-ventilated greenhouse, in which the plants will flower continuously throughout the winter months and form a welcome change from the weak, rapidly forced flowers of other plants that need a high temperature to enable them to develop at so unnatural a season. As outdoor plants during the summer months some varieties are excellent, and at the time of writing (November 16) we could gather from the open moderately good blooms of Mrs. H. Burnett and Britannia from plants that stood outdoors all last winter and were cut down to within a few inches of the soil last spring. Their cultivation has been so frequently written about that it is not necessary to go into details concerning it now; but rather would we draw attention to the progress that is being made with this race of Carnations in this country.

When the first varieties were brought over from America the flowers were rough and coarse, and not at all like the refined border varieties that our Carnation experts had for so long been raising and putting before the public; hence it is not surprising that they did not meet with a favourable reception from Carnation enthusiasts of the old school. Happily, their possibilities were recognised by a few growers, who set themselves the task of raising varieties with broader-petalled and cleaner-edged flowers; and although the best British-raised varieties of to-day cannot compare with the border varieties for refinement, they are sufficiently good to win admiration from those who practically ignored their forbears. When we compare productiveness, the newer race has everything in its favour. The border Carnation, beautiful and sweet as it is, is only a flower of a few weeks; whereas the perpetual flowering varieties are always with us, there being not a week in the whole year when a few blooms at least cannot be gathered, providing a succession of plants is maintained. For cutting and decorative purposes generally, the perpetual Carnations score a point; the newer varieties have long, stout stems that facilitate artistic arrangements, last in a cut state under favourable conditions two, or even three, weeks in winter, while the range of colours is large and includes many delicate shades that are ideal for creating beautiful effects under artificial light.

The Perpetual Flowering Carnation Society, formed so recently as 1906—in the December of which year it held its first show—has done a great deal towards advancing the popularity of this flower, work that ought really to have been undertaken by the National Carnation and Picotee Society, which looks so keenly after our Carnations of summer. By holding exhibitions during the winter months, and arranging classes specially for amateurs and private gardeners, the newly-formed society is bringing the merits of the perpetual flowering Carnation before the public, and thus inducing them to take up the cultivation of a flower that is surpassed by none during the winter. Not only is the society encouraging amateurs to grow the plants by awarding gold and silver medals and money prizes, but also, by granting certificates to new varieties, inducing raisers in this country to create flowers that will be better than those already in existence.

Unfortunately, fragrance appears to be of quite minor importance in new varieties, a fact that many will deplore. We have heard the excuse made that the public will not pay more for a flower that emits a delicious fragrance than they will for one of similar texture and colour that is

devoid of scent, but this it is difficult to believe. In any case, given two flowers of equal merit, except that one is fragrant and the other is not, we feel sure the fragrant one would be selected in preference to the other. The fragrance of the Old Clove Carnation has endeared this flower to the hearts of many, and given it a period of life that it certainly would not have enjoyed had it been so devoid of scent as are many of the otherwise excellent new perpetual flowering Carnations. The society holds its first exhibition of this season in the Royal Horticultural Hall on December 13 next, and we hope that in judging new varieties fragrance will not only be recognised, but will be demanded.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 1. — Royal Horticultural Society's Colonial Fruit and Vegetable Exhibition (three days).

December 3.—Société Francaise d'Horticulture de Londres Meeting.

"The Garden" Calendar, 1911.—We shall shortly be preparing for press THE GARDEN Calendar for 1911. We shall be glad if secretaries of horticultural societies will kindly send us the dates of their shows and meetings, so that they can be included in the calendar.

National Chrysanthemum Society.—The annual dinner of this society will be held at the Holborn Restaurant, London, on Tuesday, November 29. The president, Sir Albert Rollit, D.C.L., LL.D., will preside, and the function is fixed at 6.15 for 6.45 p.m.

The Kippen Vine.—At the annual show of the Stirling Chrysanthemum Association, held on November 10 and 11, a basket of Grapes was shown from the famous Kippen Vine and exhibited by the Kippen Vineries Company. This Vine has produced no fewer than 600 bunches this season. It covers an area of 2,240 feet on the roof, and the longest branch is 170 feet long and 22 inches in circumference. The fruit shown was excellent.

Royal Agricultural Society of England. — The horticultural exhibition for 1911 will be held at Norwich. A four days' show has been arranged, commencing on June 27. The society will be glad to receive non-competitive exhibits, but as the space will be necessarily limited, intending exhibitors are requested to make early application to the secretary, Mr. T. McRow, 16, Bedford Square, London, W.C., for the amount of space required. The schedule is now prepared, and handsome prizes are offered in the competitive classes.

United Horticultural Benefit and Provident Society. — The usual monthly meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday, November 14, Mr. C. H. Curtis in the chair. Seven new members were elected and one nominated. The death certificate of Mr. A. Miles was produced, and the amount standing to the late member's credit, viz., £8 13s. 3d., was granted to his nominee. The sick list has been heavy, the sum of £66 5s. having been paid for sickness since the last meeting. Three thousand circulars setting forth the benefits and usefulness of the society have been posted to most head-gardeners in the Home Counties, and the committee hope that many young gardeners will join without delay.

The "British Fern Gazette." — The quarterly number of this publication for December contains much that should be of interest to lovers of Ferns. The Rev. E. H. Hawkins contributes an article on British Ferns in Gloucestershire, and Mr. C. T. Druery gives some most interesting particulars about spore-sowing.

Grants to Scottish societies.—After settling all accounts, the sum of over £11,000 remained from the Scottish National Exhibition held last year, and this surplus has now been allocated among a number of institutions. Of these a small sum only has gone to institutions connected with horticulture and forestry; £100 has been granted to the Edinburgh and East of Scotland College of Agriculture, and £150 to the Royal Scottish Arboricultural Society.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Disease in Hollyhocks.—In your issues of the 22nd and 29th ult. our exhibits of Hollyhocks at the great shows of Shrewsbury and Edinburgh are referred to as being quite free from disease. "D." asks if the strain is immune from the attacks of this pest. We emphatically say that if treated as ours are treated they are rendered so, as our recent exhibits testify. We have no desire to keep the remedy a secret, but rather to proclaim it. To begin with, we would say that those for the Shrewsbury exhibit were planted the previous October, while those for the later show in Edinburgh were planted about the end of April. These in both cases we planted in similar soil, well trenched and dressed with a liberal supply of well-decayed manure. A portion of the manure was placed beneath them at planting-time, also a good sprinkling of ashes which came from the burning of refuse. They also had a good top-dressing of the latter, with a further top-dressing of potash and superphosphate, a tablespoonful per plant, well chopped in with a hoe. As growth progressed they were thoroughly dressed over with our disease mixture, which we have now used for several years, but never so persistently as this year, and we have never had them so free from disease; hence we are safe in advising all growers of the Hollyhock to thoroughly powder them all over until just before they show the colour of the bloom. We find the early part of the day the best time to apply the powder, when the dew is still on them. The mixture for dressing them is made as follows: Slake one bushel of lime, and when cool add one bushel of soot, 4lb. of flowers of sulphur and 2oz. of sulphate of copper (finely powdered). Pass the mixture through a fine sieve and dust the plants well over with it three or four times during the growing season. We have no hesitation in saying that if persevered with as directed, anyone will be able to grow the Hollyhock and be rewarded for their pains with spikes of 4 feet, and some varieties 5 feet, of flower length.—WEBB AND BRAND, *Saffron Walden.*

New single Chrysanthemums.—If some of the many readers of THE GARDEN would give their experience of some of the newer single Chrysanthemums, much good would be done by this interchange of opinions. In the hope that they may do so I give below my own experience. Sandown Radiance, mahogany red, is by general consent my best colour, and has done very well, making beautiful sprays. Nell Riding is quite a unique colour, reddish salmon, and has beautiful sprays, is fairly dwarf and a good grower. Roupell Beauty, though not so new as the others, is a beautiful colour, but with me is rather weak. Merstham Jewel is very late, and was not showing colour on November 14. Florrie King is a good variety, and has done well with me and is a beautiful soft shade of pink. Mensa has grown very well; in fact, it is over 6 feet high, but the flowers are not very promising, being small and of a greenish white. I am greatly disappointed with this plant, as it was heralded with so much vigour and pomp as being a nonesuch.—E. G., *Lytham, Lancs.*

Peas Autocrat and Gladstone.—Recently there appeared an article in THE GARDEN recommending the above two varieties of Peas for late crops. I read that article with particular satisfaction, in view of the fact that I had already formed the same opinion of them. Now, most of us like to have our opinions verified, and my experience with them this season again tends in that direction. One row of each variety was sown on June 7, gathering from them being discontinued on November 1, that being a record for lateness in my case. Even then there was a fair crop of flowers and unfilled pods on the plants. I would suggest that readers remember these two varieties when ordering their seed for the approaching season.—T. H.

Chrysanthemum plant groups.—So far as I have seen in scores of exhibitions, no amount of effort on the part of exhibitors has ever enabled them to create any artistic or pleasing effect with a group of large-flowered Chrysanthemums. No matter how fine and fresh the flowers, still the group is at the best a heavy, stiff, formal group, and adds no charm or beauty to an exhibition. It is high time these useless groups were swept away, and their places taken by plant groups of late-struck dwarf plants in small pots, including Pompons and singles. The group so very effectively arranged at the Crystal Palace Show of dwarf plants in 5-inch pots which carried off the Dean Memorial Medal commanded far more admiration than any ordinary large-flowered group secures or merits. Gardeners or amateurs, instead of putting in fifty plants, might well stage thirty, and, should they require to intermix them with Ferns or dwarf foliage plants, there is such a profusion of beautiful varieties now that are specially fitted for pot culture and greenhouse decoration that at the same time would have no chance in a large-flowered group that they merit all encouragement. Let us hope committees will soon provide it.—A. D.

Raising up the soil of flower-beds.—Permit me to join with "H. P." in endorsing the remarks by Mr. Jenkins with regard to the undue elevation of flower-beds which is so common in many gardens. This appears to me to be based on the idea that the flowers will have a greater effect when thus raised than when nearer the level of the adjoining ground. This is so far correct, but in many cases the elevation is too great for a pleasing appearance, as well as decidedly injurious to the plants cultivated in the beds. I have in view some beds thus raised which always fail to give satisfaction, and it is useless to point out to the owners the cause of the failures which annually occur. In some of these Roses are planted, and the result is that they are always too dry, and by their foliage and the poor flowers they give it is evident that they are unhappy. Such bad practice is especially injurious on light soil. I have seen beds of the lightest possible sandy earth which were much too high, and nothing but real drought-lovers could hope to thrive in these. The sound teaching of Mr. Jenkins on this and other subjects ought to be carefully studied by readers other than those who own a town garden. —S. A.

Rose Mme. Edmee Metz as a standard. This beautiful Hybrid Tea does well with us in this district as a standard, yet I do not remember noticing any comments upon it in the various Rose notes which appear from time to time in THE GARDEN. A note in my pocket-book tells me that one day in the first week in September a specimen was carrying twenty-eight flower-heads, of which seven were fully developed. This, of course, would be its second crop, and I thought it quite worthy of mention. Whether it does equally well as a dwarf I do not know; perhaps some grower of it can say. A great point in its favour is that it is absolutely mildew-proof, even in this cold locality.—C. T., *Highgate.*

Late flowers in Wales.—It may interest other readers to know that on November 3 I picked in a garden in North Wales, 600 feet above the sea, the following flowers: Roses—Frau Karl Druschki, Alberic Barbier, Dorothy Perkins, Hiawatha, Souvenir de la Malmaison, rugosa and China; Dahlias, Carnations, Martagon Lily, Sweet Peas, Mignonette, Fuchsias, Verbenas, Lupines, Coreopsis, Poppies, Sweet William, Nasturtiums, Hollyhocks, Larkspurs, Canterbury Bells, Cornflowers, Veronica, Scabious, Sunflowers, Daisies, Polyanthus, Starworts, Violas, Montbretia, Bergamot, double Primroses and Gladiolus. The above list, I think, establishes a record in late blooms.—S. LLOYD, *Merionethshire, North Wales.*

Fragrant Roses.—Cannot the National Rose Society be induced to arrange special classes for the best-perfumed Roses, both double and single, for seedlings? Rosarians know pretty well which of the old varieties give the richest perfume, and might well use one or more of those as a standard by which to judge of the scent-giving properties of new varieties. Nothing should receive an award that did not give perfume equal to that of the standard variety. Certainly there is now such an enormous number of Roses, both dwarf and climbing, double and single, which produce large or brilliant-coloured flowers that, in aiming to raise others which differ from so many now in commerce only by the tenth part of a shade of colour, very little is to be gained. A new strain of richly perfumed flowers would indeed be welcome, flowers that would enrich the atmosphere with their scent, and not show it in so limited a form that it is needful to inhale hard before the perfume becomes perceptible. It only needs a strong demand from those who love Roses as much for their perfume as for their beauty to ensure the desired supply.—D.

Improving herbaceous plants.—Some time ago Mr. Amos Perry pointed out the possiblities for improvement in many of our herbaceous plants. There is one, I think, that has been overlooked. Many have admired the beauty of Gerbera jamesonii, but it is not hardy, except in a few favoured localities like the greenhouse borders at Kew and Cambridge. The Pyrethrum, on the other hand, is perfectly hardy everywhere, and many fine varieties have been raised by Messrs. Kelway, Lemoine and others. There is a yellow-flowered species with whitish leaves (P. argenteum) in cultivation. Would it not be possible to cross this with, say, James Kelway or any of the scarlet-flowered varieties of P. roseum? With careful re-selection of the resultant seedlings it ought to be possible to get flowers combining the brilliant colour and the foliage of Gerbera Jamesonii without the difficulties attending its culture. I have long wished to experiment in this direction, but have had no opportunity to do so. I hope, however, that some other readers may be interested enough to make experiments in this direction.—W. H. BROWN.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

SCHIZANTHUS.—The earliest batch of plants will now be sufficiently rooted to allow of repotting into 6-inch pots. The old method was to grow three plants in a pot; but there is no doubt that the finest specimens are obtained by growing them singly. A fairly rich, light soil suits them, and the potting should not be too hard. Great care must be exercised in watering; if the soil becomes too wet, damping off very often occurs. Place one stake to the centre of the plant and loop the side growths to this as required.

Perpetual Carnations.—A commencement may be made with propagating. Strong side growths, about 4 inches or 5 inches long, should be selected, removing them from the plant by a downward pull. All the preparation necessary is to trim off the ragged ends with a sharp knife. These growths should be inserted in sand in a propagating-case. Failing the case, the cuttings root easily in pots filled with sand and placed in the Cucumber-house. The cuttings must be procured from clean, healthy stock, otherwise it is merely a case of propagating disease. Plants rooted now will make good specimens for flowering next autumn.

Chrysanthemums.—A start may now be made with the propagating. Where large specimen plants are required, the cuttings should be taken at once. A close frame is a suitable place for rooting the cuttings, plunging the pots in ashes as near the glass as possible.

HARDY FRUITS.

Pruning.—An excellent plan to follow is to have all pruning completed before the New Year. With the exception of Peaches and Nectarines, wall trees are usually the first to receive attention. Sweet Cherries, Plums and Apricots fruit on the spurs, so, therefore, must be pruned accordingly. Morello Cherries fruit on the previous season's growth, and, providing the summer pruning received the necessary attention, the trees should not require much now. Some of the older wood may be judiciously removed to make room for the younger. All growths should be regulated to form a well-balanced, even tree. With regard to standard and half-standard Apple trees, providing there is plenty of room for extension, all that is necessary is the regulation of the branches, keeping the tops of the trees well open to allow sun and air to have free access. When one branch crosses another, the one inclined to take a sideways direction must be removed. Pyramid or bush trees of Apples and Pears should be kept fairly open in the middle, and all growths not required for extension cut back to two or three buds. In pruning, the cut should be made just beyond an outward pointing bud. By following out this practice the trees will have a natural tendency to keep the centres open. The extension or leading growths should be left a few inches long, according to space. The object in view should be a profitable and at the same time shapely tree.

HERBACEOUS BORDERS.

The coarser-growing subjects, such as Michaelmas Daisies, Helianthus and Heleniums, become overcrowded after remaining in the same spot for a year or two. They should divided every two years, and, providing the weather is open, this is an excellent time to proceed with the work.

E. C. POOLEY.
(Gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

COLD FRAMES.

BULBS.—Most of the bulbs will now be ready to be taken from the plunge and set in frames. Keep close and well matted for the first ten days, and then gradually admit light and air. Should hard frost set in, mat securely; not that the bulbs are likely to be damaged, but the pots are apt to be broken; and if the frames have been kept shut, the points of the growths will be tender and might suffer. The advantage of growing the bulbs with abundance of air is that the growths are firm and no kind of weather can do them harm. All the earlier batches will now be ready for the greenhouse.

Cold Frames.—Several of the plants wintered in frames very quickly resent being closely shut up for any length of time. Carnations, Calceolarias, double Rockets, Violas and all cuttings of hardy plants soon suffer from damp. To keep them healthy, admit air every day unless it be frosty. Even during heavy rain-storms the sashes should be tilted a little at the back. In mild weather this chink of air should be left on even during the night.

Violets.—These require special attention in the way of airing and removing of dead foliage. Stir the soil between the plants occasionally with a hand-fork, as this assists materially the well-being of the plants. If the weather is mild, there should now be plenty of flowers. It is well to pick them as they are ready, for the blooms last much longer in water when gathered just as they open. Slugs are often very troublesome, and a close watch must be kept for these little pests.

HERBACEOUS BORDERS.

Cutting Over.—Continue to cut over such plants as have ripened their stems. Remove all weeds also and make the borders trim and neat.

Tender Subjects.—Some of our very finest herbaceous plants are not quite hardy in the North, especially if the soil is of a heavy nature. It is well, therefore, to lift and pot any that are likely to be killed during the winter.

Anchusa italica Dropmore variety is one that should always be potted up at this season, as too often it is lost if left to take care of itself. A good covering of coal-ashes is sometimes sufficient to keep it alive, but the protection of a cold frame is preferable.

Montbretias.—All the fine new varieties are rather delicate on heavy soil, so must be lifted and potted or planted in boxes, which can be wintered in a frame. Even the older kinds are sometimes killed if the foliage is cut away in autumn.

Lychnis vespertina fl.-pl.—This is one of the gems of the hardy border, but, unfortunately, it is often killed during winter. If possible, it should be potted up like the Anchusa, or else covered over with ashes and a hand-light to shed off the rain. It is damp rather than frost that kills plants of this kind.

Incarvillea Delavayii.—This fine plant, which is perfectly hardy on light, well-drained soil, dies away each winter on heavy loams. Lifting seems to be the only really safe way with it, and if there are a number of plants this is rather a serious undertaking, as quite large pots are necessary after a year or two years' growth. A large hand-light placed over each is sometimes effectual in protecting this plant.

Mimulus.—This is another plant that often succumbs on wet, cold soils. To lift and box is about the easiest and most satisfactory way to preserve it.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE KITCHEN GARDEN.

NOTES ON VEGETABLES.

WINTER SPINACH.—There is no doubt that this is one of the most important and valuable of all winter vegetables; but it is, unfortunately, difficult to persuade amateurs and cottagers of the fact, and the result is that it is commonly omitted, even from otherwise admirably cropped gardens, or grown in such a wretched manner that the leaves are worthless. It ought to be remembered that there is no winter vegetable which acts so beneficially in cleansing the blood, and for this reason it should be properly grown. To ensure the finest leaves the lines must be 15 inches asunder, and the plants in them should stand 9 inches apart to allow of perfect development in full light and air. This system also encourages a sturdy, vigorous habit that is not likely seriously to suffer from the vagaries of the weather. In gathering, the object should be to cover as wide an area as possible, so that only one or two leaves will be taken from each plant—the fewer the better.

EARLY RHUBARB. — Although there are numbers of people who cannot, or do not care to, consume Rhubarb that has come from the ordinary plantation, there are few who do not appreciate the sweet sticks that can be so easily produced in the winter by those who already possess an established bed in good health, and who have a dark place with an equable temperature in which to place the clumps. The method of procedure is simplicity itself. The plants which it is purposed to utilise for forcing should be lifted, and from one corner of each a small portion carrying two or three healthy buds ought to be cut for replanting; then leave the clump in the most exposed convenient position in the hope that it will be frozen hard. Immediately this has occurred — before, if absolutely necessary to maintain the supply —put it in the forcing place with some soil, and, provided that there is moisture, sticks will be quickly produced; stools that have been frozen will grow earlier and give a better crop than those that have not had the complete rest thus accorded. The warmer the place chosen for the forcing, the quicker will the sticks develop; but amateurs should not hesitate because they have not an ideal position, since satisfactory results come in an ordinary cellar.

MINT IN BOXES.—The powers that be of the kitchen department of the home are always demanding fresh Mint, and the man who desires to live in perfect peace and happiness should spare no efforts to provide a regular supply. It is, of course, impossible to ensure this in ordinary gardens out of doors; but those who have a greenhouse will find the task an extremely simple one, since it is only necessary to lift healthy pieces from the general bed, put them in boxes of light, sweet soil, and keep the whole pleasantly moist to encourage a constant succession of splendid young shoots. Sooner or later the roots will commence to fail, and new divisions must then be placed in other boxes to maintain an unbroken supply.

PARSLEY IN WINTER.—Useful as Mint is in the home, it is in no more incessant demand than Parsley, and it, therefore behoves the grower to produce this regularly as well. In some gardens, in the majority of seasons, small pickings can be had throughout the winter; but in order to put matters on a perfectly safe basis it is well to have some plants in cold frames. Practically any rough structure will answer the purpose, and it is only necessary to admit air on all favourable occasions to ensure gratifying returns.

FORCING SEAKALE.—It is too expensive for many amateurs to force Seakale if they have to purchase crowns for the purpose; but those who have a supply should always make up a few boxes. These must be of sufficient depth to allow the crowns to stand upright, and a little fine soil should be worked down between them; then stand the box in a suitable dark place, and growths will not be long before they commence to push up. Of course, when a warm place is at command the returns will be quicker; but the utmost care must be taken to secure not too high a temperature, or the results will be the reverse of satisfactory. After having been grown in this rather unnatural manner in boxes, the crowns should be thrown away, as they will have been so much exhausted that they are not worth the trouble of saving for planting again. Seakale is increased by means of root-cuttings, and these are best when selected from plants that have not been unduly forced. H. J.

THE NEW SOPHRO-CATTLEYA DORIS, COBB'S VARIETY
(*Much reduced. See page* 585.)

THE FRUIT GARDEN.

THE AMERICAN BLIGHT OR WOOLLY APHIS.

(*Continued from page* 572.)

CAUSTIC ALKALI WASH.—This is a non-fungicidal winter wash which is very effective in destroying the blight where it comes in contact with it. It also destroys moss or lichen growths on the trees. It is a good plan to spray the trees with this as soon after the leaves have fallen as convenient, and again in March, in the meantime burning all the leaves and prunings which fall from the trees. This wash is of a burning nature; therefore, when using it the hands and clothes should be protected. It is made as follows: Caustic soda (98 per cent.), 2¼lb.; water, 10 gallons, adding ¾lb. of treacle. Another wash, called the Woburn Winter Wash, is said to be more effective even than the above. This is made as follows: Soft soap, ½lb.; paraffin, 5 pints; caustic soda, 2lb.; water, 9½ gallons. Dissolve the soap in warm water, churn the paraffin into the soap and water, and then shake in the caustic soda. It should be applied in the same way as the other. But the most effective winter wash of all for ridding fruit trees of lichen growth and insect pests is, I believe, the following: Arsenate of soda (crystalline), 3½oz.; acetate of lead, 7oz.; water, 10 gallons. Dissolve both together in water, and then add 1lb. of treacle. These preparations were recommended by the conference on the spraying of fruit trees held under the auspices of the Royal Horticultural Society in the autumn of 1908, and will be found in Vol. XXXIV., Part 3, of the Journal of the society. As I mentioned before, any of these washes will kill the blight on contact; but whoever concludes from this that he has seen the last of the enemy will not have long to wait before he is disillusioned, because as sure as the spring and early summer come round, so sure is this pest to reappear also from the crevices of the bark or other shelter in which it has been concealed during winter. The only way to get rid of it is by following up the winter treatment with a spring application of soft soap and paraffin, made as follows: To a gallon of water add 4oz. of soft soap and one pint of paraffin; rub this well into the cottony white stuff with a small brush (made of bristles) wherever and whenever found on the trees. I say rub well because, if laid gently on, it will discolour the filament only and leave the insect unaffected; therefore rub hard, so as to crush and destroy it, taking care, of course, not to hurt the bark or the foliage of the trees. It is possible by persevering in this winter and summer treatment for a couple of years, combined with clearing away a couple of inches in depth of the surface soil from round the tree as far as the roots extend, to exterminate the pest. But if your neighbour's trees are affected it is of little use.

OWEN THOMAS, V.M.H.

AN OLD IRISH APPLE.

ON page 523 of THE GARDEN for October 23, 1909, we published a note from Mr. W. B. Hartland of Ard-Cairn, Cork, wherein he gave some interesting particulars about some old Apples which he had been collecting for some years and which had almost been lost to cultivation. One of these was named Ard Cairn Russet, fruits of which, together with three other varieties, were also sent to us by Mr. Hartland. At the Royal Horticultural Society's meeting held on the 8th inst. this variety was exhibited and gained an award of merit. The fruits are of the Pearmain type, russet and golden in colour, with very firm, sweet and juicy yellow flesh. We have no knowledge of the cropping powers of this Apple, but if it can be induced to bear well it is destined to fill a useful place in the supply of dessert Apples during November. Of other Apples sent to us last year by Mr. Hartland, one named Gibbon's Russet or Cherry Brandy Apple was excellent, the flesh being solid, crisp and sweet. No doubt there are many old local Apples in the United Kingdom that are well worth extended cultivation could they be found and placed before the fruit and vegetable committee of the Royal Horticultural Society. Our illustration is of fruits shown at the Royal Horticultural Hall on the date named.

THE GREENHOUSE.

TACSONIAS FOR THE COOL GREENHOUSE.

FOR training over the wires under the roofs of greenhouses or conservatories these fine climbers are especially suitable. They cover space rapidly and bear thinning freely in summer. As winter approaches they can be pruned back to a few leading branches, which cause little obstruction to light, an advantage when plants have to be grown on the stages below. The comparative hardiness of several species is a great point in their favour; indeed, young plants will often continue to grow in winter in houses from which frost is excluded. The flowers are produced in the axils of the leaves and hang by long, thread-like stalks, and are thus seen at their best from below. Tacsonias can be grown in large pots, but succeed far better when planted in a border. A compost of two-thirds loam and one-third peat, sand and well-rotted manure is the best. They are not very particular as to soil; ordinary kitchen garden soil has been used with excellent results. Propagation is easily effected by means of seeds or cuttings made from the weak, short-jointed side shoots. Insert them in pots of sandy soil and place under a bell-glass in a temperature of 60° or in a frame on a mild hot-bed. New seeds under similar conditions germinate freely in about three weeks, and if potted on as they require it, soon make fine plants and flower in the following summer.

Tacsonia Van Volxemii is well known, and although not so hardy as some others, it is quite satisfied with an ordinary greenhouse temperature. The tube of its large, rich crimson flower is comparatively short, only 1½ inches; the pistil and stamens, however, protrude quite 2 inches beyond the corolla, adding much to its charm.

T. smytheana was raised by Mr. Smythe of Basing Park Gardens from a cross between T. mollissima and T. manicata. The three-lobed, dark green leaves form a striking contrast to the delicate pale green of the long tube and outside of the flower. The petals and inside of the sepals are of a beautiful salmon pink. Recently I compared it with the colour in the "wings" of Sweet Pea Henry Eckford, and found the two almost identical; a narrow ring of bluish purple, as in most Tacsonias, encircles the throat. It is difficult to say too much in praise of this plant. We have it planted out in a large house where the night temperature is rarely above 35° in severe weather. Under these conditions it continued to grow throughout last winter, and is apparently so nearly hardy that we have propagated it, with a view of testing it, on a south wall in the open air. If it succeeds it should make a good wall plant, as its flowers stand out horizontally rather than hang downwards.

T. mollissima grows freely and flowers abundantly. The leaves are three-lobed and deeply divided, each lobe being rather narrow, long and pointed. The pink flowers are about 3½ inches across, but have a tube from 4 inches to 5 inches long. Both stems and leaves are slightly downy.

T. mixta is sometimes disappointing, for although it appears the hardiest of all and grows rampantly, it refuses to open its flowers in a satisfactory manner. Nor when they open do they remain so for any length of time. Again, they are of the same colour as those of T. mollissima, and much smaller and inferior in every way, except that around the throat is a ring of numerous purplish blue filaments. The stamens are often petaloid.

Nymans Gardens, Handcross. J. COMBER.

A RECENTLY DISCOVERED DESSERT APPLE, ARD-CAIRN RUSSET.
(About two-thirds natural size.)

A NEW ORCHID.

THE new Sophro-Cattleya shown in the illustration on page 584 was recently brought before the Orchid committee of the Royal Horticultural Society, when it created quite a sensation among leading Orchid-growers. Its full name is Sophro-Cattleya Doris, Cobb's variety. It is a hybrid between Cattleya dowiana and Sophronitis grandiflora. This particular variety is the largest flowering and unmistakably the best form of the hybrid that has yet been raised. The plant illustrated bears a solitary flower about 5 inches across of good substance and of a brilliant orange scarlet, which is very much intensified when seen under bright sunshine. It was shown by Walter Cobb, Esq., Normanhurst, Sussex (gardener, Mr. C. J. Salter), when it secured the high award of a first-class certificate. This novelty ranks high among the many beautiful hybrids that have recently been exhibited before the Orchid committee.

THE ROSE GARDEN.

NEW ROSES OF THE YEAR.

(Continued from page 575.)

THELMA (Wichuraiana, Spooner, 1909).—As I saw it shown I thought it too much like Ariel, but it may probably be sufficiently distinct to warrant its introduction. The single flowers are bright rose, with yellow shading. A cross between Dorothy Perkins and Mme. E. Resal. I wish the latter had imparted its perpetual-flowering habit as well as its lovely colouring.

Theresa (H.T., A. Dickson and Sons).—A lovely semi-double sort of most enchanting colours. In the bud it is deep orange apricot, passing to madder pink with carmine splashes. As the flower expands it becomes ecru, veined flesh pink, passing to silvery pink. A free grower. It will certainly be a favourite for garden decoration.

Vanity (T., Halstead, 1909).—A great improvement on Gustave Regis. This beautiful Rose is another of Australia's contributions, and a most worthy sort from the accounts I have received of it.

Veluwezoom (H.T., Lourens, 1908).—A seedling of Caroline Testout crossed with Soleil d'Or. The colour is deep carmine rose, centre shaded golden yellow; large and full. A promising novelty.

Veilchenblau (Multiflora, Schmidt, 1908).—The so-called Blue Rambler. As a novelty it is interesting, and although it was given a bad name by the miserable colour as seen in forced plants exhibited, it is, when grown under natural conditions, a very distinct variety. It is a far cry from the Delphinium blue to the colour of this Rose, yet it is no doubt nearing this shade of colour, and probably hybridists will evolve from it a really worthy sort.

Viscountess Enfield (Pernetiana, Pernet-Ducher, 1909).—A seedling of an unnamed Rose crossed with Soleil d'Or. A most delightful sort with fine long buds, opening to full flowers of coppery rose colour, shaded vellow. The inner petals are deeply tinted with carmine, while those in the centre are sometimes striped yellow. We are getting now quite a nice collection of these pernetiana Roses, and if they possess the free-flowering and perpetual habit of Arthur R. Goodwin, they will be very valuable.

Viscount Carlow (H.T., A. Dickson and Sons).—A very distinct sort with a lovely blending in colour

THE HERBACEOUS BORDER IN THE AUTUMN GARDEN AT GLAMIS CASTLE.

of warm carmine pink stained on deep cream: the stiff petals as they develop are distinctly edged with carmine. A decorative Rose of the highest value, as it is not only mildew-proof, but is constantly in bloom, each plant making quite an effective show. A grand bedding Rose.

Walter Speed (H.T., A. Dickson and Sons).—It was no mean achievement for this superb Rose to beat not only Lyon Rose, but also one of last year's gold medal sorts, Ethel Malcolm, also Leslie Holland, not yet in commerce. This was done at the National Rose Show at Regent's Park in the class for twelve blooms of any new Rose. It proved the great merit of the variety. It is without doubt one of the best of the Newtownards novelties, and is a great improvement on our old esteemed friend Antoine Rivoire, and this is saying a deal in its favour.

Wartburg (Multiflora, Kiese and Co.).—This was well exhibited at Liegnitz. It has fine bold trusses of peach red blooms, quite distinct, and is likely to prove a good addition to our large-flowered ramblers.

White Killarney (H.T., Waban Conservatory Company).—This will prove a useful Rose, for, like its parent, it presents a bold appearance in the mass, the blooms being held so erect. It will be a great boon to all who force Roses, and for exhibitors very useful.

Herr Peter Lambert has introduced about a dozen beautiful novelties in the Dwarf Polyantha section which should add considerably to this group colours that have hitherto been wanting. I have not proved them yet, but if they are as good as his Eugenie Lamesch, K. Zeimet or Little Alfred, they will be esteemed. One variety, Gustel Mayer, is said to have Liberty-coloured blooms, and the others have most attractive descriptions. Their names are: Backfisch, Bettelstudent, Cineraria, Frau Alex. Weiss, Frau Oberhofgartner Schulze, Frau Ottilie Luntzel, Lustige Wittwe, Mieze, Trierisch Kind and Unser Peti. I know from experience what delightful novelties may be raised by crossing these charming Roses, and it would appear from the above that there is a wealth of novelty in store for us from this successful hybridist, who has given us some of our best varieties in other classes, such as Frau Karl Druschki and Gustav Grunerwald.

Messrs. Paul and Sons' charming little Pompon Roses, which they have designated the "Cheshunt race," are really dwarf perpetual-flowering wichuraiana Teas, and doubtless other varieties will be coming along in due course. To all who can appreciate these little charmers I would advise them to procure the five varieties introduced, namely, Agate, Amber, Iceberg, Sea Shell and Topaz.

A few interesting botanical novelties have been introduced during the last two years or so. One from Herr Lambert and shown at Liegnitz this year was named Rosa Myriacantha, a cross between a Polyantha and a Moss Rose. The flower is reminiscent of a Polyantha, semi-double, carmine red in colour, and the stalk, not the calyx, is thickly mossed, which consists of small rough prickles.

Rosa Mojesii (Paul and Son, 1910), a new species from China, has single flowers 3 inches across; colour rich deep red with a brown shading. It received an award of merit from the Royal Horticultural Society, June, 1908.

R. macrophylla Fargesi.—From M. Vilmorin; exhibited by Messrs. Paul and Son. Colour brighter crimson than the above, with lighter centre.

R. webbiana grandiflora.—An interesting novelty with small Rose du Barri pink single flowers and graceful foliage.

Doubtless M. Jules Gravereaux could tell us of other gems among these botanical novelties; but it is only when one possesses a garden such as this great rosarian owns at L'Hay that one's desire to grow all the novelties that annually appear could be made an accomplished fact.

Although this list has been an extensive one, I have been obliged to omit quite a number, and probably—I might almost say certainly—some first-rate sort has been overlooked; but of this I have always been assured: if a Rose possesses real merit it will forge its way to the top whoever may be its raiser. P.

THE FLOWER GARDEN.

THE AUTUMN GARDEN AT GLAMIS CASTLE.

WITHIN the past three years a most interesting addition has been made to the already extensive gardens and pleasure grounds attached to this fine old historic residence by the formation of a flower garden designed chiefly for autumn effect. A portion of the shrubbery, in much closer proximity to the castle than where the older gardens are situated, was selected for this purpose, and, notwithstanding the fact that the soil is of a poor, sandy nature overlying gravel, the luxurious growth now seen on all sides clearly

LILIUM NIGRINUM FORTUNEI 6 FEET HIGH IN THE AUTUMN GARDEN.

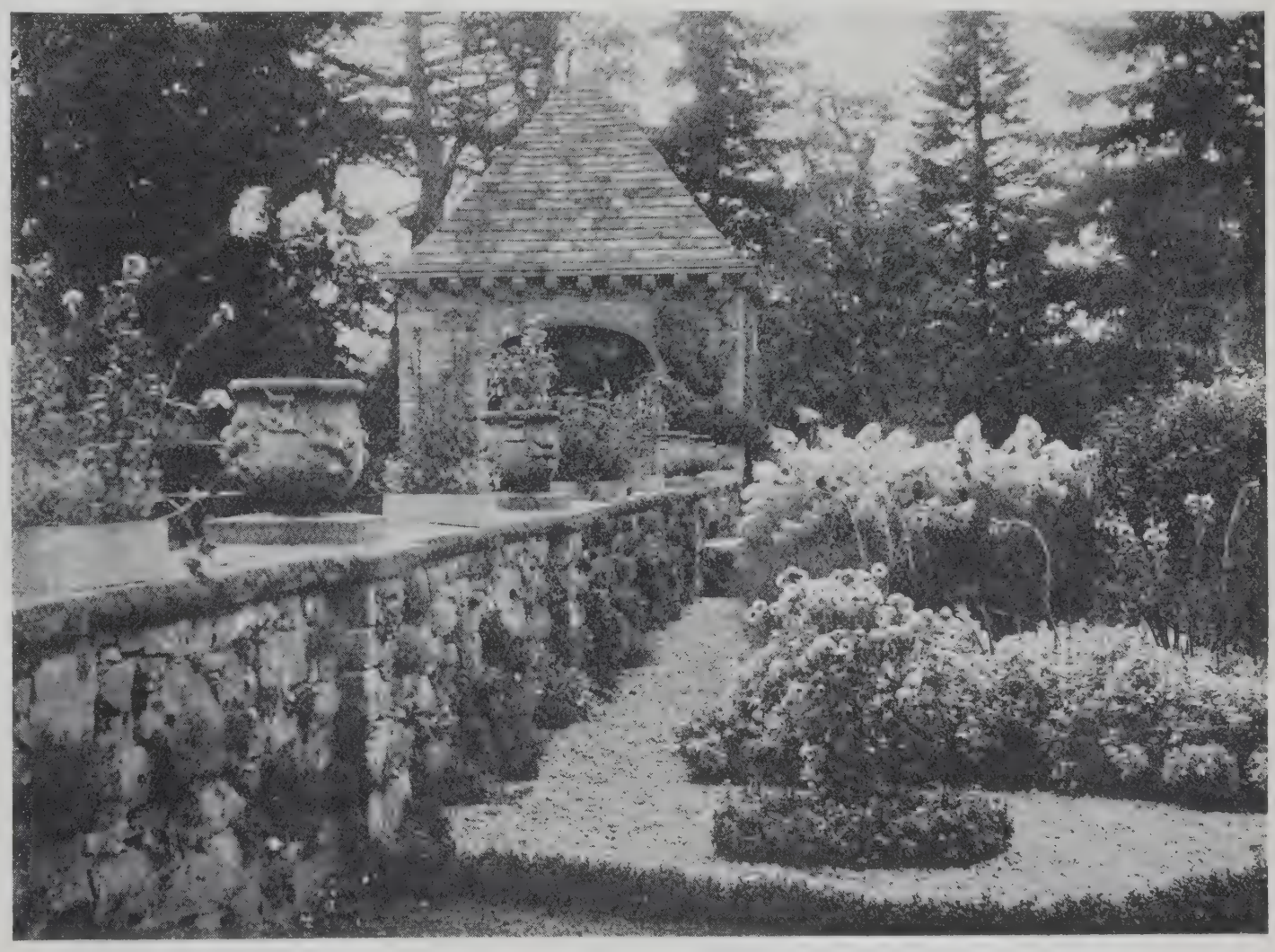
demonstrates that suitable compost and liberal manuring have been employed to bring about these results. The garden is in the form of a rectangle, about two acres in extent, and enclosed by a Yew hedge, which, planted in 1907, has already made vigorous growth.

A well-stocked herbaceous border runs from end to end on one side, while at the other side a raised terrace has been constructed, from which a fine view of the main features of the garden can be obtained. The retaining wall of this terrace has been utilised for the purpose of introducing one of the most interesting and absorbing branches of gardening, with gratifying results.

The building of this wall has not followed the prescribed method of giving a certain amount of slope to ensure moisture easily reaching the roots of the plants, but has been built quite plumb, with a hewn coping projecting over the wall. As the accompanying illustration shows, the occupants do not seem to have suffered from lack of moisture. Of course, it may be added that this wall is facing north, which not only favours the plants in hot weather, but also induces a later flowering season. As the majority of rock plants flower in spring or early summer, this retarding is worthy of notice. The wall is, however, kept gay all through the autumn by numerous annuals and perennials, many of them being now self-sown.

Before leaving this wall with its lovely alpine subjects, we may briefly refer to the beautiful stone vases, carved in bold relief, with which the terrace walls are ornamented. At either end of the terrace is a summer-house, and in the centre a large stone dais overlooking the main flight of steps and central walk, 36 feet in width, which leads up to an ornamental stone basin, with fountain and blue mosaic interior.

Following their invariable custom, the Earl and Countess of Strathmore have throughout the operations insisted that none but local craftsmen should be employed, and both take special pride in letting it be known that on their own estate are to be found workmen who can execute not only the beautiful stonework already referred to, but the magnificent wrought-iron gates which are placed at the main entrances and the curious, old-fashioned yet comfortable, carved Oak seats which are freely distributed throughout the garden.



TERRACE AND RETAINING WALL IN THE AUTUMN GARDEN AT GLAMIS CASTLE.

As the ancient castle of Glamis is formal and stately, a garden to suit it must necessarily partake of the same character, and this has been successfully accomplished by the introduction of numerous intricate patterned flower-beds, edged with Box-wood and filled with a selection of the most brilliant and sweet-scented flowers. Owing to the prevalence of late spring and early autumn frosts, the more tender of the usual bedding plants have been eliminated and preference given to such subjects as Antirrhinums, Pentstemons, Phloxes, Chrysanthemums, Larkspurs, Liliums and Violas, while selections from hardy herbaceous plants have been included with pleasing results.

Among the many fine effects to be found here are beds studded with standards of Hydrangea paniculata and having an undergrowth of Gypsophila paniculata, the former, each carrying from twenty-five to thirty large heads of flower reaching to a height of almost 6 feet, being most effective. Lilium tigrinum Fortunei, planted two years ago in clumps containing five bulbs each, is now thoroughly established and, measuring 6 feet high and the same in diameter, in company with Antirrhinum Orange King, forms a striking picture, a handsome group being shown in the illustration. In the same series of beds are to be found some pleasing combinations, such as pink Phloxes with Antirrhinums, tall-growing Michaelmas Daisies with Aster sinensis, Aconitums autumnale and Wilsonii with the low-growing A. chinense, Lilium auratum with white Phloxes and Mignonette, and sentinel-like groups of Hollyhocks towering to 10½ feet in height, the picture of health and vigour. In another series of beds some of the prominent features to be seen are Stock-flowered Larkspurs, the varieties Rosy Scarlet and Mauve attaining a height of 6½ feet. Close to these that gem of dwarf Michaelmas Daisies, Aster Thomsonii, is seen smothered with its pale mauve star-like blossoms. Early-flowering Chrysanthemums in the choicest varieties also contribute largely to the floral display. Two other portions of this interesting garden are devoted to China Roses, in beds associated with Boxwood patterns of an elaborate design. Weeping Roses on tall stems are freely used, and numbers of Yews and Boxwood trees are also being prepared for topiary work.

The herbaceous border already referred to is about 10 feet wide, and contains a careful selection of the most brilliant of these hardy flowering plants arranged in groups. Liliums of various kinds are also liberally planted throughout the border, and seem to thrive admirably when planted among the roots of other plants. The Lilium auratum seen in the illustration measures almost 7 feet in height. One of the most successful colour-schemes in this border has been secured by the addition of some large plants of Azalea pontica planted in huge ornamented pots raised well above the adjacent plants, the richness of the autumn tints in this plant being well known.

Unlike many of the present-day methods of intensive flower gardening, where the occupants of the flower-beds are renewed periodically throughout the summer from a large stock kept in reserve, this garden is entirely dependent on its permanent plants and an annual rearrangement of hardy and half-hardy annuals to keep up a continuous display all through the summer and autumn months.

The Countess of Strathmore, who is devoted to gardening in all its branches, and possesses not only a cultured taste for decorative effect, but also a thorough, practical knowledge of the requirements of all hardy plants, personally directs every detail in the laying-out of the garden, regarding which much more might be said did space permit; but we cannot close without reference to a beautifully sculptured stone bearing the monograms and arms of the noble owners, and recording on a neat tablet underneath the names of Mr. Wilson, the head-gardener, and the other craftsmen who assisted him in the making of the garden. The photographs from which our illustrations have been prepared were kindly sent to us by the Countess of Strathmore.

LILIUM PHILADELPHICUM.

A LILY we do not often meet with in gardens is Lilium philadelphicum, a plant with extremely pretty cup-shaped flowers, from two to five on a stem. The base of the segments is yellow, spotted with maroon, and with scarlet at the tips. It is a Lily of moderate height, only growing about 1½ feet high, and is thus suited to the small garden. It is one of the Lilies which like shade and moisture, such as it can receive in many gardens. A peaty soil, moist at the bottom, is good for L. philadelphicum, and it must be noted that it is one of those which emit roots at the base of the stem, and consequently requires top-dressing. The leaves of this Philadelphian Lily are arranged in whorls, like many of the North American species. S.

GARDENING FOR BEGINNERS.

HOW TO INCREASE HARDY PERENNIALS BY DIVISION.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Where there are shrubberies, much attention will be required in order to keep them clean at this season, on account of leaves collecting there from deciduous trees and shrubs. Indeed, one can find many leaves of evergreens that have turned yellow and fallen off during the latter part of the summer. Very few persons can really spare the time to rake out leaves every week, and in such instances the collection becomes very great by the time autumn arrives. Choose a fine, calm day and commence at the highest part of the bank or bed covered with the shrubs, and then rake down all loose leaves. Pick out all leaves lodged round the stems of the shrubs, as if left these leaves will dry in time and, getting detached a few at a time, will be blown about and so give to the whole lawn a littered appearance. Some persons prefer to leave the fallen leaves and to dig them under the soil during the winter months. The best plan is, however, to cover the leaves with some soil brought from the garden borders where it can be spared, or to make use of old potting soil for the purpose. The roots of the shrubs will soon permeate both the leaves and the covering soil, and greatly benefit thereby. Now that the lawn has been cut for the last time this year, the mowing-machine must be thoroughly cleaned, all bearings well oiled, blades and cylinders rubbed well with oiled cloths, and then stored for the winter months. Dry sheds are the best places for mowing-machines, and if the floor is paved or cemented or bare earth, place some boards under the machine. The latter is sometimes left out under a bush all through the winter. I need scarcely say that the iron parts rust considerably, and more harm is done to the implement than in a whole summer's mowing of the lawn. After the first frosts make the soil firm again round Pansies, Aubrietias and similar spring-flowering plants.

Vegetable Garden.—The first forcing of Rhubarb must now take place. It is usually done by lifting the roots and placing them in warm sheds or forcing-houses, or under boxes covered with a hot-bed composed of leaves and stable litter. I advise the lifting of the roots where there is convenience for forcing in sheds or houses. The later batches may then be forced under the hot-beds. Select a few strong roots, carefully lift them, and leave them fully exposed on the ground for about a week prior to taking them to the forcing-house. The exposure for a time will induce the crowns to rest, and the growth when forced will in consequence be more freely produced. Finish lifting and storing Carrots without delay; if left in the soil any longer young roots will commence to grow from them, and this mars the flavour. Parsnips, though left in the beds in which they have grown, must be examined and all bad leaves removed forthwith. In doing this avoid damaging the crowns of the plants, else they will quickly decay. Make all Potatoes and Onions quite safe from frosts.

2.—DIVIDED PIECES READY FOR PLANTING. THE LARGEST PORTI WOULD MAKE A BOLD PLANT IN THE FIRST SEASON.

Fruit Garden.—Fruit trees must be planted while the weather is fine and the soil rather dry; the latter can then be nicely worked in among the roots of the trees and made moderately firm. To firm soil round the roots of the trees while it is wet and sticky would be bad for the trees, as new roots in soil so treated would be slow in forming. The following are the right distances apart to plant fruit trees: Bushes and pyramids of Apples and Pears, 7 feet; standards, 20 feet; Cherries and Plums, 18 feet; dwarf horizontal-trained Apples and Pears for walls and espaliers, 15 feet to 20 feet, Apples on the Crab stock at the latter distance, and Pears on the Pear stock, Apples on the Paradise stock and Pears on the Quince at the former distance. Upright cordons may be planted 18 inches apart. When planted, the first tying of the trees must only be temporary.

Greenhouse and Frames.—The earliest bulbs must now be placed in cool frames and kept in semi-darkness for nearly a week. They must also be kept safe from frosts. When sufficiently hardened in the frame, remove the plants to the greenhouse and place them on side stages or shelves; but during hot sunshine shade the plants with white tissue paper, or even newspaper. Give clear water only until the pots are well filled with roots and the flowers are showing. The pipes in the warm greenhouse must be warmed earlier in the afternoon now than during the past few weeks. Ventilators must also be closed in good time and all watering done in the forenoon. A little later, when the bulbous plants become pot-bound, weak doses of liquid cow-manure alternated with Clay's Fertilizer should be given about twice a week. This will enable the plants throw up much stronger flower-spikes, A. A.

1.—A CLUMP OF ERIGERON IN EXCELLENT CONDITION FOR DIVISION.

INCREASING HARDY PERENNIALS B DIVISION.

ONE of the charms of the hardy flower garden the fact that the grower can, by a wise system planting, be assured of a display of beauti flowers throughout the spring, summer and autum and even in the winter there are subjects th never fail to please those who can find acco modation for them. By observing due care planting the different subjects, disposing them such a manner that in their grouping a succession flowers shall be assured, the hardy flower gard may become a source of the greatest possi pleasure for many months, and life be made l trying to the busy worker.

An important point in connection with t planting of hardy perennials, and one to wh prominence should be given, is the fact that t first cost is practically the only one. These su jects increase and multiply, some of the vigoro and robust plants attaining unduly large p portions in a couple of years. In many garde it is the practice to renew the hardy border eve third year. Thus the quarters devoted to th can be trenched, and heavy dressings of manure so important to the well-being of many of t stronger-growing subjects—dug in for the futu good of the plants.

At the present period, when most of the plan have ceased to flower and the late-flowering kin have been cut down by recent frosts, an excelle opportunity is afforded of dealing with them fort with. Many of the better hardy perennials divi most successfully in the autumn and in the sprin The advantage of an autumn division of the c roots is that the divided pieces invariably beco well established by the succeeding spring, and a consequently better able to give a good accou of themselves in the flowering season that follow

In the present instance my remarks are confin to the Fleabane (Erigeron), a subject which provid an abundant supply of decorative material for considerable time in the summer, and is mo

attractive when properly grouped in the outdoor garden.

It may be well to mention a few of the more important hardy perennials that may be divided at the present time, as this will assist the beginner in dealing with some of the old and impoverished plants that have rendered a good account of themselves in the past. Among the more popular subjects are the Michaelmas Daisies, also known by the name of Starworts or perennial Asters; the Japanese Windflower (Anemone japonica), Alkanet (Anchusa), Sea Holly (Eryngium), Globe Thistle (Echinops), Leopard's-bane (Doronicum), Shellflower (Chelone), Bellflower (Campanula), Cinquefoil (Potentilla), Bergamot (Monarda), Creeping Jenny and Loosestrife (Lysimachia), Campion (Lychnis), Torch Lily or Red-hot Poker (Kniphofia or Tritoma), Sunflower (Helianthus), Crane's-bill (Geranium), Globe Flower (Trollius), Meadow-sweet (Spiræa), Golden Rod (Solidago), Cone Flower (Rudbeckia) and a host of other equally useful and attractive subjects. Quite a large number of hardy perennials should be divided in the spring, and a few of the better things are the perennial Larkspurs (Delphiniums), Scabious (Scabiosa), Feverfew (Pyrethrum), hardy herbaceous Phlox and other subjects of a similar nature. From the list of subjects mentioned above it will be seen that the late autumn affords an excellent opportunity for increasing by division of the old roots quite a large number of invaluable hardy flowers.

The grouping of the different subjects, however, is a matter of the highest importance if the ultimate results are to be all that the grower desires. They should be disposed so that one group of flowers succeeds another in close proximity thereto, and the colour effects must always claim proper consideration. Failure to observe these simple rules may otherwise create some inharmonious associations of colours and, very possibly, something most incongruous. In grouping the respective subjects full consideration should be given to their character of growth, and ample space should be allowed for each plant to display its real beauty in association with other plants.

The size of the border has an important bearing on the grouping of the subjects. In large borders each group should be proportionately large, but for ordinary purposes three to six plants in a group, according to the character of the respective subjects, may be a useful rule to follow. Three plants arranged in triangular form succeed very well; but where a larger number of plants are employed, a somewhat irregular arrangement generally answers better.

When lifting hardy perennials for division it is well to lift them so as to prevent damage being done to the roots as far as possible. The fork or spade, or whatever tool is used, should be got down well under the plant, so that the latter may be lifted intact. Where the old plants are very large, it may be necessary to insert the tool at intervals round the plant to ease the roots, and thereby ensure less damage being done. Fig. 1 represents the Fleabane (Erigeron), which has many interesting varieties. This subject is fairly representative of most of the hardy perennials, and serves to illustrate the character of plants that divide quite easily. The old plant gives every indication of making quite a large number of useful pieces with which to perpetuate its kind. The outer portions of the old plants are the pieces that should be replanted, these being the youngest and, therefore, the most vigorous for the purpose. Fig. 2 serves to illustrate the character of the divided pieces of the old plants. All the outer pieces with roots adhering should be retained, and the inner portion of the old plant, which is invariably exhausted and of little use, should be thrown on the rubbish heap. Those who desire speedy results should plant the larger of the divided pieces; these should flower very satisfactorily in the following summer. Smaller pieces may be used for ordinary purposes. The very smallest pieces should be planted in prepared soil in a cold frame, and transplanted in the spring. It is astonishing what a large number of plants may be obtained from one old specimen by these means.

D. B. CRANE.

HOW TO TREAT THE HERBACEOUS BORDER NOW.

WHEN well managed, herbaceous borders are always extremely interesting, but those that are neglected do not add to the general neat appearance of the garden. It is an undoubted fact that at this season—the early part of winter—these borders do get neglected. It is the only time really when much useful work can be done in connection with them, and certainly every endeavour must be made to maintain them in a tidy, neat condition.

Bulbs in the Borders.—Every bulb, or clump of bulbs, should be duly labelled, so that there will be no risk of damaging the growths just before they come through the soil. Very long labels look unsightly when the border is almost denuded of foliage; those of medium height are the best. The fading stems of such kinds of plants as Phlox and Michaelmas Daisies must be cut down to within 2 inches of the soil. Do not attempt to violently pull up such stems, as there would be the risk of also pulling away the crowns of the plants too. In due time the shortened stems will get loose, and may then be removed. Of course, it is never wise to dig the soil deeply round the roots of herbaceous plants, as the work cannot be done without destroying many small valuable roots. Well-rotted manure may be lightly forked in just under the surface, and it may be necessary to add some loam in certain places on the border to fill up hollows. Very often round the clumps of Phlox, Michaelmas Daisies and similar plants the soil has worn away, as it were, and a nice surface-dressing of old loam will not only fill up the hollows, but greatly benefit the plants. Round the roots of Hollyhocks, Delphiniums and similar plants some sifted ashes must be placed, as they keep out frost and also prevent slugs eating the young crowns.

AVON.

TOMATO FRUITS IN SPRING.

DURING the early stages of growth the plants will not take up much space in a warm house. The best position for them is one near the hot-water pipes, providing that it is light, as these plants, unlike many other kinds, do not suffer from attacks of red spider when grown in a dry, hot place. White fly might appear in the springtime; but by vaporising the pest can be easily kept down. When the young plants are placed in their fruiting quarters, whether in pots, boxes or borders, only allow them a layer of compost about 5 inches deep in which to commence growth. The soil must be good fibrous loam resting on a small quantity of rotted manure. To a bushel of loam add a 7-inch potful of sweet leaf-soil and a 5-inch potful of old mortar rubble. Make the compost very firm round the roots of the plants, and, after giving one thorough watering to settle down the soil, only water afterwards when it is really getting dry. Air without draughts must be admitted when the weather is very fine. Do not attempt to feed until two trusses of fruits are swelling. Top-dressings, made firm, are essential when roots appear plentifully on the soil.

SHAMROCK.

THE TOWN GARDEN.

BULBS IN BOWLS.—If one might judge of the popularity of any particular phase or aspect of gardening by the attention bestowed upon it by the trade, then assuredly one might reasonably say of bulb-growing in ornamental pottery bowls that it has met a want and is come to stay. At a recent exhibition of the Royal Horticultural Society there were several exhibits of these bowls from leading nurserymen and others, the majority of the receptacles being of a useful size and either elegant in design or quite plain. The great thing for the amateur to bear in mind in making a first attempt to grow bulbs in this way is that a period of preparation in a dark cellar, or something akin, is a sort of necessity, and where uniformly cool conditions—the essentials to a good start—are usually found. By also committing to memory the important fact that Hyacinths and Daffodils are decidedly moisture-loving subjects, and that Tulips of all kinds, Crocuses and Snowdrops are almost the reverse of this, particularly in the early stages of growth, the amateur or beginner will have learnt a lesson of much value, one, indeed, that will prove an almost infallible guide for all time.

WHAT TO AVOID.—The thing to avoid at this time is the introduction of the bulb-bowls into the dry-air conditions of the sitting-room before the bulbs are sufficiently well rooted. Success—that is, ultimate success—depends not a little upon a full complement of roots being made under the most natural conditions possible, and impatience or the rushing of these things into dry, hot rooms at too early a date will presently receive its due reward.

ALIEN CONDITIONS.—From every point of view the plant in the sitting-room—be it bulb or shrub, or what you will—is existing under conditions foreign to its nature, and often enough to its well-being; hence the cultivator should not—indeed, must not—inflict upon it a burden it cannot bear. On the other hand, by the exercise of patience and those intelligent and rational methods of cultivation inculcated through the pages of THE GARDEN from time to time, it is possible for the amateur to experience quite a large measure of success in these and similar matters. In the open ground a bulbous plant of necessity makes a great mass of root fibres without any corresponding display of top growth, and in his dealings with bulbs in bowls the amateur will not greatly err by following this teaching.

VAN THOL TULIPS.—The Van Thol Tulip is chiefly characterised by dwarfness, and is known to all because of its "first early" forcing attributes. From early November onward the miniature cups of blossoms may be seen in the window of almost every florist, the flowers, or very often the entire plant, being employed with a free hand at this season of the year. For the amateur, however, a greater value will attach to these miniatures of a great race if he can have them in flower for the festive season of the year. This he can do by putting boxes of bulbs in deeper boxes, and placing the whole over the hot-water pipes in the greenhouse forthwith. A covering sheet of glass or boards, with a sack to retain the heat and ensure darkness, is all that is required to produce a successful result. At this stage moisture should be supplied twice daily with a syringe. The dark conditions should be maintained till the plant has made its fullest growth.

ROMAN HYACINTHS.—For early work the treatment for these indispensable flowers differs in no material particular from the above, the plants in each case, if well established, bearing artificial

heat with comparative impunity. Roman Hyacinths grown in pots require considerable head room when being forced, also abundant supplies of moisture at the roots of the plants. Watering or syringing overhead should be discontinued as soon as the flowers begin to expand. At much the same period the plants, after having been for a day or two gradually inured to fuller light, should be removed to the greenhouse stage for flowering. Not only for their chaste purity and elegant bearing are these Hyacinths delightful at the Christmas season, but equally so because of a fragrance well-nigh unique at that time.

E. H. JENKINS.

BOOKS.

Orchids.—This is Vol. V. of the "Present-Day Gardening Series," and is written by Mr. James O'Brien, V.M.H. In the first chapters the author deals briefly with the historical side of orchidology, followed by a description of Orchid flowers. How to construct an Orchid-house is fully discussed, and full details are given regarding staging, method of heating, temperatures and shading, while a note is devoted to the single Orchid-house, which should prove of immense value to the amateur. Potting and basketing are referred to, and we are pleased to note that the writer says, in regard to staking, "that the fewer sticks used the better," for we have often seen specimens rendered unsightly by the numerous sticks employed, which must also injure many of the roots. The removal of useless pseudo-bulbs is rightly dealt with, a phase of Orchid culture which does not receive sufficient attention from the majority of growers. A useful chapter will be found in "Orchids as Cut Flowers," where it is stated that "they should not be cut until they are fully matured." It also "adds greatly to their durability if they are placed head downward, thoroughly immersed in clean rain water, and kept so immersed until an hour or so before they are set up, gently shaking the water from them, and placing them on a cloth or some dry, cool surface until wanted." Seed-sowing and treatment of seedlings, diseases and insect pests, the enumeration of the principal genera and species in cultivation, importing Orchids, propagation and manures for Orchids are dealt with, and an interesting chapter is devoted to "Odours of Orchids"—in fact, every cultural requirement will be found in this well-written book, and it is one we can confidently recommend, especially to the beginner and those who only cultivate a few plants, while the professional will also find much useful information. The work is illustrated with eight coloured plates, which include Cypripedium insigne Sanderæ, Odontoglossum crispum and Miltonia vexillaria.

The Code School Garden and Nature Note-book.*—In endeavouring to satisfy the too often absurd and wooden requirements of the Education Department in relation to elementary school work, the compiler and publishers of this new school book find ample justification. It furnishes to children now being taught school gardening an opportunity to record everything they can think of in connection with their work, and a good deal more, to be in use during the year; then, we fear, like so many similar diaries, to be thrown aside and forgotten. What terrible mechanical creatures do all these forms and books tend to make our children when everything is done by rote or to order, and there is no room for the exercise of the child's originality or individuality! But the cause lies with the red tapeism of the Education Department, which, apart from all this excessive grandmotherliness in requiring mechanical thought and work, is also creating for local education authorities costs or expenses that are absolutely needless and fast becoming unbearable. The forms in this book include monthly records of work and of observations, even including a record of weather variations, and these records cover the winter months, when school gardening is not in operation, although lessons on Nature study may be given in the classroom. How much of valuable school time must of necessity be occupied in filling up these forms. The list of common garden pests or diseases, with remedies, is excellent for a gardener; but how can children apply the burning alkali solution or paraffin emulsion, or spray with Paris green? Such things could not be used by them in any school garden. Then there are monthly reminders of work to be done or things to be observed. Thus, under January we are told to lime-white or spray trees coated with moss or lichens. But it would have been far more valuable information to have told how to avoid the moss and lichen coating product of roots having got into sour soil. Of American blight we are advised to brush it off, then syringe with paraffin emulsion; but the brushing off would only give the insects new life and quarters. Elsewhere it is advised to lay Strawberry plants in pots for the winter on their sides—very bad advice, but, still, amusing in relation to school gardens.

The Sweet Pea Note-book.—There is no flower that can claim so many new books to its credit as the Sweet Pea, and among the latest additions is the "Sweet Pea Note-book," by Walter P. Wright. This is the author's second Sweet Pea book, and no one will deny but what it is compiled by one who is quite conversant with the modern development of the Sweet Pea. As is seen by the title-page, this little book is devoted to varieties only; there are no cultural details given. The "Sweet Pea Note-book" is concise and well compiled. Among other features, it contains a descriptive list of varieties and a directory of Sweet Pea experts. It is thoroughly up to date, and will be of particular interest to the exhibitor. It is issued in paper covers and published by the author, the price being sixpence.

Royal Horticultural Society's Classified List of Daffodil Names, 1910.—The publication of this long-expected booklet is an event of the first importance to Daffodil societies and to all who are interested in Daffodil shows, whether they are the general public who frequent them, or the competitors and judges whose efforts, it may be truthfully said, create them. Everybody has wished for a standard classification for a good many years, and the Classified List of 1910 is the second attempt that the Royal Horticultural Society, through a sub-committee of its Narcissus Committee, has made to meet the want. As one who took an active part in compiling that of 1908, I have heard many opinions expressed as to what sort of grouping would be the simplest and best. My own personal view is that it does not very much matter so long as each variety is pigeon-holed. This new list is a big attempt at doing this, and I feel sure everyone is very grateful to both Mr. Rudolf Barr and to Mr. C. H. Curtis for all they have done in connection with it. They probably know far better than anyone can tell them that the work is not perfect, and that there are hiatuses and clerical errors in assigning each variety its proper place. These things are inseparable from a first edition of anything of this kind; but if those of us who are interested will pull together, most, if not all, of these little deficiencies may be soon rectified and all necessary additions made as often as requisite. It is a great thing to have this list, and until such time as there is a re living National Daffodil Society to look after a things connected with this most English flower, venture to express a hope that it will be the adopte standard of all our societies. In conclusion, I know so well the importance of this subject to many and the divergence of view with which will be regarded, I would ask the Editor if he cou open the columns of his paper for a few weeks those who wish to express their opinions. [Certainl —ED.]. It will be interesting and instructive have them.—JOSEPH JACOB.

The Charm of Gardens.*—It was n without a certain amount of trepidation that picked up this book. So much trash has be written about the charm and poetry of gardens duri recent years that we, having no knowledge of t author, dreaded a long drawn-out repetition of th mock sentiment. But we are disillusioned and h the author as a true lover of all that is best a most beautiful in our gardens of England, usi the term gardens in the same broad sense as t author, who takes the whole country-side for h garden and, after pointing out to us with a mast hand the rare beauties of Nature, leads us alo unconsciously to the gardens created by ma "The Charm of Gardens" is not a book dealing wi culture; its aim is to remind us of beauties th exist on every hand and which an unobserva spirit might pass by without notice. The fi part of the book is devoted to the country-side, a therein the author takes us away from the fogs a cold of November and transfers us to country lan and woods, at one time in spring and another summer, reminding us of scenes that have pass but which we hope may be repeated, and whi certainly will never be forgotten while we ha this book at hand. Part II. is devoted to garde and history, opening with a chapter on the Rom garden in England, considerable space being devot to Evelyn's Sylva. It is in this part alone that find fault with the author. His idea of t modern gardener as set forth on page 100 is erroneous one; there may be a few whose sole a in life is to grow large and shapely plant specime but these cannot be taken as characteristic of t whole race. The modern gardener genera is fully alive to the necessity for creating beauti pictures in the garden. In Part III. we fi Evelyn's "Kalendarium Hortense, or the Gardene Almanac," given, while the concluding porti is devoted to "garden words." The volume beautifully bound and printed, and well illustrat with thirty-two excellent coloured plates. the first part of it alone we shall long keep a wa corner in our hearts for the author, who has t soul of a true lover of Nature.

Alpine Flowers and Rock Gardens†—The author of this sumptuous volume may fai be regarded as one of the most versatile writers gardening matters of the present day. No mat whether it is fruits, flowers, vegetables, trees shrubs, all alike come as grist to his literary m and even the most fastidious consumer of gardeni literature can find but little fault with the milli In this book we have a vast amount of interesti information placed before us in tempting d play, and arranged in that methodical manner characteristic of the author. It is divided i four parts, each of which has its use. In Part the author describes in lucid language the charact istics and habitats of alpines; in Part II. we some delightful chapters on alpines at home, th having been written by Mr. William Graveso

* "The Code School Garden and Nature Note-book," by G. Wilym Lewis; price 9d. Messrs. Horace Mar hall and Sons, London.

* "The Charm of Gardens," by Dion Clayton Calthro price 7s. 6d. net. Messrs. A. and C. Black, Soho Squa London. W.C.

† "Alpine and Rock Gardens," by Walter P. Wrig price 12s. 6d. net. Messrs. Headley Brothers, Bisho gate Street Without, London, E C.

Part III. ushers us into the practical portion of the book, where we find valuable hints on the formation of rockeries, planting and propagating alpines, and other phases of their culture. Part IV. is divided into two sections, the first of which is devoted to special chapters on the most important rock plants, while the second gives brief descriptions of the best alpines in alphabetical order, with selections for various purposes, as well as dealing with shrubs for the rock garden. A great feature of this volume is the profuse manner in which it is illustrated. No fewer than forty-four coloured plates, each mounted on a stiff, dark brown background, are given, and many of these are exceptionally well done, though the colours in some are, perhaps, a little overdone. Some of them seem familiar to us, and call to mind fleeting visions of extra well-printed post-cards. In addition to these are fifteen beautiful illustrations in black and white, excellent binding and good letterpress, so that the volume may well claim to be a sumptuous one.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Suitable plants for a rustic fence (*Ireland*).—We advise you to plant the following subjects against your rustic fence: Jasminum nudiflorum bears yellow flowers from the middle of December to the end of January. Forsythia suspensa bears yellow flowers from mid-March to the end of April. Both require 6 feet of space to do themselves justice. Clematis alpina is a mauve-flowered plant which blooms in April; it may be kept to a space of 4 feet. Ceanothus veitchianus blossoms for three weeks during May; its flowers are blue, and it should be given a space of 6 feet. Clematis montana (white) and C. montana rubens (red) both flower during the month of May. They require a considerable space to do themselves justice. Roses such as Tea Rambler, Hiawatha, Dorothy Perkins, Blush Rambler, Philadelphia Rambler, Gloire de Dijon and Alberic Barbier will bloom from June onwards for at least two months. They must be given a good space each, say, 12 feet. Lonicera Heckrottii and L. sempervirens are two good red-flowered Honeysuckles which blossom for a long period during summer. Clematis Jackmanii and any of its varieties are suitable for autumn, and flower from August until October. Wistaria chinensis may be used to cover a space of 20 feet or 30 feet; its fragrant, mauve flowers are conspicuous for three weeks during May and June. A scarlet-flowered plant of great beauty is found in Tecoma radicans; it blooms in autumn. Eccremocarpus scaber is another showy plant, which bears scarlet flowers for the greater part of the year; it is of herbaceous habit.

Treatment of outdoor Chrysanthemums (*Marguerite*).—The early flowered Chrysanthemums may be left in the ground, and if the tops are allowed to remain on they will help to protect the young shoots in the winter. With the return of spring the plants may be cut down, or if this is done after flowering for the sake of neatness, some slight protection in severe weather will be beneficial.

Plants for damp situation (*C. L.*). — The position affords an excellent opening for the planting of such things as Calthas (King-cups), herbaceous Spiræas, as gigantea, venusta, Aruncus, Ulmaria in variety and the showy hybrid forms, of which Mr. Amos Perry makes a speciality. Trilliums or Wood Lilies, Saxifraga peltata, Gunneras, Lilium superbum, L. canadense, L. pardalinum, Primula japonica, P. rosea, P. pulverulenta, Senecio Clivorum, S. tangutica, S. japonica, many of the Novi-Belgii and Novæ-Angliæ forms of the Michaelmas Daisy, Narcissus Emperor, N. Sir Watkin, N. poeticus fl.-pl., Leucojum æstivum, Camassia esculenta, Rodgersias and many others would revel in such a place, as would also certain of the Bamboos, as B. palmata, B. Veitchii, Phyllostachys nigra and others, while Bog Bean, Butomus and Lobelia syphilitica would be quite at home also in the wetter parts. Chrysanthemum uliginosum, Scarlet Dogwood and Sea Buckthorn would also be of service, and by their beauty and variety provide agreeable pictures if rightly arranged.

THE GREENHOUSE.

Bulbous Irises in bowls (*P., Wilts*).—Of those you name, I. persica, I. reticulata and I. histrioides are the best, while to these may be added I. Tauri and I. Heldreichii, all of which are beautiful. I. alata usually flowers in November and December when thus grown, and it is for this one a little late to make the start. From the cultural point of view a greenhouse is not essential, though a dark place, such as a cellar, is a decided advantage. The bulbs require to be just covered by the prepared fibre mixture, and should be made moderately firm by pressing, and given a light watering to settle the material about them. Or, if you will, the mixture might be damped a day in advance of using it, and in this way dispense with water at planting-time and for a week subsequently. Bulbous Irises require but moderate supplies of moisture at any season, save when the flower-spike is being pushed forth, and in this respect differ materially from Daffodils, which at all times require ample supplies. The bowls should be allowed to remain in a darkened place till growth is somewhat advanced, when they may be brought into the room, placing them near the light. Only the strongest bulbs are likely to give satisfaction.

Treatment for Melaleuca hypericifolia (*Salisbury*).—There is no doubt that you will have to forego the flowering of your Melaleuca for one season if you cut it back hard. As a rule it breaks out readily if cut back, but we should advise you not to carry out the operation till the month of March, when the young shoots will push out with but little delay. It would be useless to try and winter it out of doors.

Gardenia foliage injured (*R. W.*).—Judging by the enclosed shoots, there is no doubt that the roots of your Gardenias are in an unhealthy state. We cannot give the cause thereof; but as you say you have been using soot-water and liquid manure, it is very probable that an excess of stimulants has set up a sour condition of the soil and thus rendered healthy growth impossible. The one plant in a good condition may be owing to the fact that it has been given less stimulants, perhaps owing to its being more extensively drained. It is not at present a good time to disturb the roots; therefore we should advise you to discontinue feeding the plants and water them carefully till February, when they may be repotted. In repotting, as much of the old soil as possible should be taken away and any decaying roots cut off. The compost employed must be such as will assist the formation of roots, say, two parts good loam to one part peat or leaf-mould and a liberal sprinkling of sand. Overpotting must be guarded against, the one object being to get the pots well furnished with healthy roots, after which they may have a larger shift when necessary. It is worse than useless to give plants stimulants unless the roots are in a perfectly healthy state and thereby enabled to assimilate the food supplied to them.

ROSE GARDEN.

Roses from cuttings (*A. C. W.*).—We should say you will get a good number of the cuttings to form roots. Probably just now the growth they have made is from the sap in the cuttings; but as you have provided them with a gentle bottom-heat, they should callus all right, and if they do this they will be safe. It will be best to keep the light off on all fine days, but cover the cuttings at night. It would do no harm to the cuttings to cut back the new growths, but rather would be beneficial, as by this means the little shoots become hardened ready for another year. You have certainly put the cuttings in too thickly, and you may possibly lose many from this cause. If frosty weather threatens, cover the cuttings with some dry Bracken Fern or dry leaves. One of the greatest enemies to small cuttings in winter is damp, so therefore give air on every suitable occasion. Mme. Réné de St. Marceau is a very lovely Rose, and probably in France it would surpass Souvenir de Catherine Guillot; but this Rose is not generally successful with us in this country.

Roses for winter bloom (*J. J. M.*).—Twelve of the best varieties for planting out under glass to supply winter flowers would be Richmond, Mme. Abel Chatenay, Liberty, Joseph Lowe, Lady Roberts, Bridesmaid, Niphetos, Perle des Jardins, Mme. Hoste, Lyon Rose, Mrs. Aaron Ward and Molly Sharman Crawford.

Moss Roses on pergola (*R. S.*).—Providing you do not give strong doses of manure at any one time, we do not consider it would be injurious to the Tropæolum, and you can readily remove any growths and tubers of the latter when they encroach too much upon the Moss Roses. Doubtless you can plant the tubers between the Moss Rose plants and not immediately behind them.

Forcing Roses (*J. G. M.*).—We think it would be best to put a row of pipes along each side of the pathway rather than under the soil of the beds. There are several objections to this latter course; one would be your inability to repair any leakage at any time without danger of disturbing the roots of the Roses. Plant the Roses out in the beds by all means. They are much more successfully grown in this way, providing you have really good borders prepared for the plants. It would, perhaps, be advisable to plant out established plants from pots, in which case you need not prune such plants very much this season. See to it that the ball of soil is thoroughly wetted throughout before you put out the plants, and be careful to make the soil firm about the ball. It is advisable to give the side roots a little release by prodding with a pointed stick. They then go to work more readily in the borders.

Spraying for red rust on Roses (*N. L.*).—The Woburn Bordeaux Paste can be used in conjunction with the arsenate of lead paste and the Woburn Tobacco Extract when it is desirable to spray for red rust and other fungoid diseases, caterpillar and aphis. Mix the Woburn Bordeaux Paste with its own bulk of water, then add about 12 gallons of water to 1lb. of the paste so mixed. The arsenate of lead paste is prepared by taking 1lb. and thinning it by rubbing it up with a little water and then pouring off into 25 gallons of water, repeating this, if necessary, so that the lead arsenate may be evenly diffused. The Woburn Tobacco Extract is used at the rate of 1lb. to 10 gallons of water. Having prepared the articles separately as above, the three may be blended together in equal quantities and the plants sprayed with the mixture. Of course, at this season of the year you will not require to mix the three articles, as aphides and caterpillars have for the most part disappeared; but for another season you could adopt the plan of mixing. For mildew and aphis we have found Jeyes' Cyllin Soft Soap an excellent article used at the rate of 1oz. to a gallon of water.

MISCELLANEOUS.

Planting under trees (*Miss A. C.*).—The plant sent is Senecio tangutica, a very desirable subject for the wild garden. The very dark position under the trees would be difficult to fill with a good flowering plant for summer or autumn when the trees are in full leaf, hence we think you would do well to plant the stronger-growing Ferns, such as Lastrea Filix-mas or some of the Athyriums, which would follow the Anemones in springtime. You might also plant freely of Colchicums, Crocus speciosus and Cyclamen hederæfolium and C. album for an autumn display, and such as these mingling with the Ferns would be more in keeping with what you have already in position.

Names of plants.—*M. E. W., Glenbrook.*—1, Hedysarum coronarium; 2, Veronica Teucrium dubia.——*E. K.*—1, Sequoia sempervirens; 2, Thuya orientalis; 3, Cupressus sempervirens; 4, Cryptomeria elegans; 5, Cedrus Deodara; 6, Pinus Strobus; 7, Cupressus lawsoniana.——*R. D.*—1, Euonymus europæus; 2, Acalypha wilkesiana; 3, Alloplectus Lynchii; 4, Scrophularia aquatica variegata.——*A. W.*—Cleone pungens.

Names of fruit.—*J. G. B., Richmond.*—Conical Apple, King of the Pippins; flat Apple, Maltster.——*J. E. R.*—1, Beurré Clairgeau; 2, Bergamotte Esperen; 3, Beurré Hardy ——*York.*—1, Old Hawthornden; 2, Kedleston Pippin; 3, Stamford Pippin; 4, Emperor Alexander; 8, not recognised; 9 and 10, Lord Suffield; 11, Sugarloaf; 7, Cellini Pippin; 5, Black Pear of Worcester; 6, Easter Beurré.——*S. E. D. T., Bridgnorth.* 1, Allen's Everlasting; 2, Keswick Codlin Improved.——*Colonel Bullock.*—We think the Apple is a seedling from Duchess of Gloucester

SOCIETIES.

READING GARDENERS' ASSOCIATION.

AT the meeting held in the Abbey Hall on November 7 Mr. Alderman Parfitt presided over the largest attendance of the present session. Instead of the usual lecture, the committee had arranged competitions of an educational value to the gardener, all the work being done in the room and in view of the assembled audience. The first competition for the best lady's spray and gentleman's buttonhole was confined to head-gardeners and foremen. Eight entries were secured for the three prizes offered, and the judges' awards were: First, Mr. H. Wynn; second, Mr. H. Goodger; third, Mr. A. Abraham. The next event was open to all except head-gardeners and foremen, and was for five small vases arranged for effect. This contest attracted eleven entries, and it was decided to award a fourth prize if the work was of sufficient merit to admit of it. The judges' decision was: First, Mr. A. Francis; second, Mr. A. H. Casey; third, Mr. A. E. Bolton; fourth, Mr. S. G. Chambers. Twenty minutes was the time allotted for work in both competitions. The judges—Messrs. T. Tunbridge, W. Butler and W. G. Pigg—accomplished their somewhat difficult task to the entire satisfaction of all concerned, and complimented the prize-winners on the admirable work executed by them. The character of the work having been criticised by several speakers, the president presented the prizes, all the winners being loudly cheered. On the business side of the meeting the president urged the members to do their utmost to make the forthcoming exhibition on November 23 an even greater success than it was last year, and as evidence of the extraordinary vitality of the association no fewer than ten new members were elected. Messrs. Tunbridge, Powell, Wilson, Bailey, Judd, F. Townsend, Loader, W. J Townsend, H. Goodger, G. Durrant and A. Webb kindly brought bunches of flowers, which next morning were forwarded by the hon. secretary to the Royal Berkshire Hospital. The meeting closed with votes of thanks to the judges for officiating, and to Mr. J. Phillips and Messrs. Watson and Son for kindly loaning the tables and the vases used for the competitions.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE annual Chrysanthemum show of this association was held in the Waverley Market, Edinburgh, on November 16, 17 and 18, and, as usual, was one of great merit. So far as regards quality, the association has reason to congratulate itself upon its excellence. In all sections this was very high. The season in Scotland appears to have been most suitable for the Chrysanthemum, and both cut blooms and plants were very fine indeed. In other plant classes there were many subjects of the highest merit, and fruit and vegetables continue to maintain the standard of quality we see at this show annually.

The keenest interest is always excited by the competition for the Queen Victoria Memorial Prizes, the first prize being the City of Edinburgh Cup, with £12 in money, for fifteen vases of Japanese in fifteen varieties, three blooms of each. Here, after a very keen competition, the fact of there being only one point between his exhibit and the second, Mr. David Nicoll, Rossie, Forgandenny, was awarded the coveted trophy, the runner-up being another noted grower, Mr. Thomas Lunt, Keir. Mr. Nicoll gained 138 points out of a possible 180. His best blooms were Hon. Mrs. Lopes, Purity, Edith Jameson and Mrs. F. W. Vallis, for each of which 10 out of a possible 12 points were awarded. Next in quality were Lady Talbot, Mme. G. Rivol and Mrs. A. T. Miller, for which 9½ points were given. Others shown were Lady Conyers, Mrs. Thorne, Mme. P. Radaelli, Bessie Godfrey, J. H. Silsbury, Mrs. C. Beckett and F. S. Vallis; a grand stand of flowers of high quality and finish. Mr. Lunt's best flowers were E. J. Brooks and White Queen, and the fact that so little separated the two lots showed the general excellence of both exhibits. Mr. A. Morton, Cullen House, Cullen, was third with 119 points against the 139½ he gained the prize with last year Mr. J. E. Davis, Ballathie, Stanley, was fourth.

The other leading class for cut blooms was that for the Scottish Challenge Cup, for which competitors in the first class could not compete. Here Mr. W. Young, Falkland Palace, Fife, was first with 61 out of a possible 96 points. Mr. D. M'Lean, Raith, Kirkcaldy, was second with 58½ points; and Mr. J. Finnie, who was first last year, was third this time with 57½ points. The blooms here were generally good, but none received so many marks as some in the Queen Victoria class.

For six vases of Japanese in six varieties, confined to private gardeners and amateurs, Mr. R. Honeyman, Bowland, Stow, led with excellent blooms, Mr. H. M'Skimming being second, Mr. J. Boucher third, and Mr. J. Clark fourth. For Mr. M'Hattie's prize for twelve blooms of Japanese in twelve varieties, shown on boards, Mr. D Nicoll was first with fine flowers; second, Mr. A. Morton; third, Messrs. G. Williams and Sons, Cardiff. The other first-prize winners in the bloom classes included Mr A. Campbell, Mr. A. Morton, Mr. J. Waldie, Mr. J A Sword, Mr. G. Scott, and Mr. A. M'Millan. With singles Mr. W. Galloway was first for six vases; second, Mr. J. Bruce; third, Mr. R. Honeyman. For three vases of singles in two separate classes Mr. A. M'Millan and Mr. J. Galloway won first prizes. Mr. Bruce was first in the class for market growers, and Messrs. Todd and Co were second.

Chrysanthemum plants were not so numerous as usual, but were, as a whole, good. In the principal classes Mr. W. Michie, Borrowfield, and Mr. W. Pulman, Colinton Road, were the leading winners. Other plants were excellent, and a large number of prizes fell to the lot of Mr. A. M'Millan, Douglas Castle, who won in all the Palm classes and in those for Dracænas and Ferns for table, besides second and third prizes in others. Mr. G. Kerr led for Primula sinensis and P. obconica; Mr. J. Palmer for table plants; Mr. J. Turnbull for dwarf hardy Ferns; Mr. A. Knight for eight decorative foliage plants; and Mr. J. M'Gregor for four decorative foliage plants.

Bouquets and floral designs were a fine section of the show, and were, generally speaking, of outstanding merit. For the decorative table the first prize fell to Mr. J. Hood, Dalmore, Helensburgh, for a pretty table principally decorated with Roses and Lily of the Valley; second, Mr. F. G. Small; third, Mr. James Beats. Miss Todd, Mr. J. Beats, Mr. A. Knight, Mrs. Newlands, Mr. F. M. Urquhart, Mr. D. M'Kay and Mr. A. Cameron were the other winners of first prizes in this section. The ladies' classes were not so good as usual, and no first prizes were awarded.

The award for the best bloom in the show was made to Mr. T. Lunt, Keir, for White Queen in his exhibit which gained the second prize in the competition for the Queen Victoria Memorial Prize.

The fruit classes were excellent, although a little thinner than in some former years. For eight dishes of fruit in eight kinds, Mr. W. Galloway, Gosford, led with a fine collection, among which we noted as very fine the Pears Durondeau and Duchesse d'Angouleme and the Apples Charles Ross and Gascoyne's Scarlet Seedling. Grapes were, as usual here, very fine, and Mr. W. G. Pirie, Dalhousie Castle, carried off the first prizes for four bunches, distinct; two bunches, one black and one white; and two bunches of Muscat of Alexandria. Other winners with Grapes were Mr. W. Scott, Mr. J. Shiells, Mr. D. Kidd and Mr. J. M'Neill. For eighteen varieties of Apples, grown in Scotland, Mr. James Duff, Threave, was first with good examples; but for eighteen unconfined, English fruit as usual led, Mr. C. W. Caddick, Ross, being first. For Scottish-grown Pears Mr. Galloway was first, but in the open class Mr. G. Mackinlay, Wrest Park, led. Mr. Caddick was first for six varieties of culinary Apples, but the first for six dessert Apples went all the way to British Columbia, Mr. T. A. Brydon being the enterprising exhibitor. Mr. Caddick was first in the market gardeners' class for three baskets of dessert Apples and also for three baskets of culinary Apples. For twelve bottles of preserved fruits Mr. W. Poupart, Twickenham, led.

Vegetables were excellent, and the first prize for the collection of nine distinct kinds was won by Mr. R. Stuart, Thirlestane Castle, who was well ahead of the second and third prize exhibits, shown respectively by Mr. D. M'Michan, Hillfoot, and Mr. W. P. Bell, Bothwell Castle. The other vegetable prizes were well divided.

Trade exhibits were not so plentiful as usual, but those which were sent were valuable and interesting to horticulturists. Messrs. Dobbie and Co., Edinburgh, exhibited a fine variety of Chrysanthemums, a variety of Potatoes, &c. A silver-gilt medal was awarded. Messrs. W. Wells and Co., Merstham, sent a large exhibit of about 100 varieties of Chrysanthemums, including a number of novelties. Gold medal. Messrs. W. Brown and Co., Edinburgh, showed fruit in a fine exhibit. Gold medal. Messrs. Young and Co., Cheltenham, exhibited Carnations, which deservedly received a gold medal. Mr. W. Poupart sent a collection of bottled fruits, for which a gold medal was given. Mr. John Forbes, Limited, Hawick, set up a good exhibit of Carnations and other flowers. Silver medal. Mr. J. W. Scarlett, Inveresk, showed vegetables, for which a silver medal was given, and a similar award was made to another collection of vegetables from Messrs. Tillie, Whyte and Co., Edinburgh. Silver-gilt medals were awarded to Mr. H. N. Ellison, West Bromwich, for a fine display of Ferns; to Messrs. G. Williams and Sons, Cardiff; and to Messrs. Storrie and Storrie, Glencarse, N.B., for one of their fine exhibits of fruit trees in pots, fruits and plants. Mr. Buchanan, the Kippen Vineries, exhibited Grapes from the celebrated Kippen Vine. Cultural certificate. Notable exhibits were sent by the British Columbia Government, consisting of fruit; and Mr. J. Whytock, Dalkeith Palace, staged an excellent group of Apples, Pears and Grapes, showing not only the resources of the Duke of Buccleuch's gardens at Dalkeith, but also the skill of Mr. Whytock and his staff. Gold medals were given to both of these exhibits.

The show was opened in a graceful manner by Her Grace the Duchess of Montrose. Mr. A. D. Richardson, the secretary of the association, and the managing committees deserve high credit for the excellent arrangements.

COLCHESTER ROSE AND HORTICULTURAL SOCIETY.

THE annual autumn show was held by the above society on the 10th inst. at the Corn Exchange, and proved most successful. The fruit classes alone were very fine, over 300 dishes of Apples being staged. There were some very fine exhibits in the cut-flower classes, and some beautiful tables were arranged by ladies, no fewer than eleven being first-rate, and the bowls of autumn foliage and the Chrysanthemums were very beautifully arranged. Violets at this show are always exceptionally fine, and the bowls of single Violets from the Right Hon. J. Round and Mrs. O. G. Orpen were beautiful, also the doubles from Mrs. Hitchcock. Single Chrysanthemums are becoming great favourites, and they are of much better habit for vase-work than the huge flowers so often seen.

The National Chrysanthemum Society's silver medal was awarded to T. Hetherington, Esq., Berechurch Hall, (gardener, Mr. G. Peach), who also took the National Chrysanthemum Society's certificate for the best bloom. Messrs. Hetherington and Norman were the winners in the large Japanese class, having fine material. There was only one award in the incurved class, this going to Mr. W. E. Eyre. For singles Mrs. H. de Larpent was first, Messrs. Arnold and Hetherington being second and third. For vases Messrs. Hetherington, C. K. Norman and Mrs. de Larpent won in the order named.

Groups were remarkable for their taste and effective arrangement. Mrs. de Larpent (gardener, Mr. W. Richardson) was a splendid first in the large group class, Mr. W. Diaper, Colchester, second; and Mr. E. J. Sanders third. In the smaller class Messrs. Beard and Bridges were the leading exhibitors. For trained plants Messrs. Weatherall, Diaper, Beard and Mrs. de Larpent won in the Japanese classes in the order named; and for three plants, trained, Mr. Diaper and Mrs. de Larpent were the leading exhibitors.

Fruit was a large feature of the exhibition Prizes are awarded largely for flavour, there being distinct classes. In the dessert class, Grapes from the Hon. W. Lowther (gardener, Mr. Andrews) were very fine, this exhibitor leading in all the classes. For six dishes of dessert Apples Miss K. M. Courtauld was first with very beautiful fruits, having fine Cox's Orange. O. G. Orpen, Esq., Hillside, West Bergholt, was a close second; indeed, in this lot was the best dish of dessert Apples in the show, a grand lot of King of Tompkin's County. Mr. N. R. Page was a good third. For three dishes Messrs. Lowther, Everett and Moy were successful. Miss Courtauld had the best Cox's Orange, Mr. Page being second. The best Ribstons came from Mme. de Neckare, Miss Courtauld being second. Pears were good, but less numerous. The Hon. W. Lowther, Mr. Page and the Rev. R. W. Chilton were the leading exhibitors. Messrs. Bunting and Sons had the best in the small class. The best dishes of Doyenné du Comice came from Mrs. de Larpent, and the best stewing Pears, Uvedale's St. Germain, came from the East Anglian Sanatorium.

Vegetables were staged in quantity, and mostly of good quality. In the large class the Hon. W. Lowther led easily, the Right Hon. J. Round being a good second and Mr. E. J. Sanders third. In the smaller collections Messrs. Harwood and Strowlger won in the order named Mr. Lowther had the best white Celery in a large class, and Mrs. de Larpent the best red.

WEST OF ENGLAND CHRYSANTHEMUM SOCIETY.

ON November 15 this society held its annual exhibition of flowers, fruit and vegetables in the Guildhall, Plymouth. The show was somewhat smaller than in previous years, but the staging was excellently arranged, and at every point there was much to interest the student of horticulture. In former years the competition in the open classes for cut blooms was exceedingly keen, and as many as twelve exhibitors have entered for the premier class, but the craze for big blooms is evidently dying out, at all events in this part of the country, and but little interest is now taken in this section. One of the most attractive features in the exhibition was a table of salads shown by Mrs. Bainbridge, which was deservedly awarded the first prize, and was very bright and pretty with crimson and golden Tomatoes of the large and Currant varieties, scarlet and yellow Capsicums and Chillies, variegated Chicory with crimson and yellow leaves, red and white Radishes, pillars of Cress, Chervil, Endives, Borage and Corn Salad. In this exhibit there were forty-two varieties of salad, and it was of such excellence that it would doubtless have won even in London. The first prize for a group of stove and greenhouse plants included Lilium Harrisii, Cyclamen, Chrysanthemums, Carnations, Palms, Crotons, Asparagus and Ferns; and the first-prize group of Orchids was composed of graceful specimens of Cypripediums, Lycastes, Cattleyas, Odontoglossums and other species The groups of single Chrysanthemums were very graceful in effect and good in colour. This class was open only to residents within fifteen miles of Plymouth, and the first prize was won by Mr. C. Bewes; but the second prize stand was generally considered superior. In the first-prize stand for forty-eight Japanese blooms, Florence Denford, Lady Talbot, General Hutton, F. S. Vallis, J. H. Silsbury and Hon. Mrs. Lopes were very fine. The first prize for twenty-four dishes of fruit was won by Mr. F. R. Rodd with superb specimens, the Grapes being magnificent. The Earl of Morley won first prize for twenty dishes of Apples, also for six Zonal Pelargoniums.

PRIZE LIST.

Forty-eight Japanese: First, the Rev. T. Sheepshanks. Twelve Japanese: First, the Rev. T. Sheepshanks. Twelve Japanese incurved: First, the Rev. T. Sheepshanks. Eighteen Japanese in vases: First, the Rev. T. Sheepshanks. Twelve vases of single Chrysanthemums: First, Messrs. J. Webber and Sons. Group of Orchids: First, Messrs. J. Webber and Sons. Group of stove and greenhouse plants: First, Messrs. J. Webber and Sons. There were also classes open to residents within fifteen miles of Plymouth, which were well filled with high-class exhibits. There were also classes confined to amateurs and to cottagers and artizans.

The nurserymen's stands were one of the features of the show. Messrs. Sutton and Sons exhibited a magnificent collection of vegetables, for which they were awarded the society's gold medal and a certificate of merit. Messrs. R. Veitch and Son, Exeter (silver medal and certificate of merit), had an attractive stand with many pretty Chrysanthemums, among which were the new singles Richmond Glory (crimson), Councillor H. S. Bevins (maroon red) and Caledonia (pink), a fine selection of Carnations, including Vinca, Aurora, Beacon, Rose Doré, Rival, Victory, Mikado, Mrs. H. Herbert, Britannia, Sarah A. Hill, Carola, White Perfection, Mrs. H. Burnett, May Day, Enchantress and Mrs. Charles Knopf. The Devon Rosery, Torquay, had a fine show of Apples, Peas, good's Nonsuch being superb. Mr. W. J. Godfrey, Exmouth, showed hybrid Gerberas in various colours, Zonal Pelargoniums and Chrysanthemums.

THE GARDEN.

No. 2037.—Vol. LXXIV. December 3, 1910.

CONTENTS.

Some Good Shrubs for Forcing 593

Notes of the Week
Forthcoming events 594
Dr. D. H. Scott, F.R.S. 594
Abor Day at Sandgate 594

Correspondence
The cooking of vegetables 594
London County Council's parks appointment .. 594

Gardening of the Week
For the South and South Midlands .. 595
For the North and North Midlands .. 595

Trees and Shrubs
The Sun Roses .. 596

Apple Chelmsford Wonder 596

Coloured Plate
Sweet Pea Paradise Apple Blossom .. 597

Flower Garden
Sweet Pea chat .. 597
An interesting autumn flower .. 597

Rose Garden
Rosa pimpinellifolia or spinosissima .. 598
New Roses for forcing 598

Kitchen Garden
Brussels Sprouts for winter and spring 598
Some new varieties of early Peas .. 599
Protecting autumn-sown Carrots .. 599

Gardening for Beginners
Garden work week by week 600
Chrysanthemums .. 600
How to grow clean Mushrooms 601

The Town Garden .. 601

The Royal Horticultural Society's new classification of Daffodils 601

New plants 602

Answers to Correspondents
Flower garden .. 603
Trees and shrubs .. 603
Fruit garden 603
Miscellaneous 604

Societies 604

ILLUSTRATIONS.

New and old forms of Helianthemums 596
Sweet Pea Paradise Apple Blossom .. .. Coloured plate
Helianthemums at Pauls Moss, Whitchurch, Salop .. 597
Rosa pimpinellifolia in a Scottish garden 598
A pyramid tree of Apple Chelmsford Wonder .. 599
How to treat stock plants of Chrysanthemums 600, 601

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, *Tavistock Street, Covent Garden, W.C.*

SOME GOOD SHRUBS FOR FORCING.

THE time has now arrived when those who wish to make displays of forced shrubs for greenhouse decoration in spring should commence bringing their plants into a little heat, for it is better to bring them into flower gradually, by allowing two or three weeks longer for forcing, than to subject them to excessive heat in the hope of flowers appearing quickly.

Forcing plants, it must be remembered, is a source of some considerable amount of work and expense; consequently it is advisable that really good examples only should be requisitioned — not, as sometimes happens, the leavings of a batch of plants which were not considered good enough for outdoor planting or half-worn-out shrubs from a border. In some nursery gardens, more particularly Continental ones, a speciality is made of shrubs for this purpose, and really first-rate material may be obtained at a moderate price. When plants are grown specially for the work, little but flowering wood is found, for all weak shoots are removed to throw all possible strength into the principal branches. Moreover, they are not allowed to flower and so waste a certain amount of energy in the intervening time between their propagation and the period when they are ready for the forcing-house. Special attention is given to the ripening of the wood, and in some instances the large roots are cut about the end of August to check growth and facilitate ripening.

Assuming that such plants have been obtained and that they are now in pots plunged out of doors, it is as well to anticipate frost by scattering leaves, hay or Bracken among them in order that they may be lifted at will, even during an extended period of frost. Should the plants not have been procured, however, no time should be lost in obtaining a supply, and if they can be had established in pots, select them by all means.

Plants which are forced early are naturally weakened more than those which are brought into blossom nearer the normal time. For this reason the owner has to consider whether it is better to throw the plants away as soon as the flowers have fallen or whether it will pay him better to find them house-room for a while and then plant them out of doors for a season. The cheaper kinds are often not worth keeping, but such as double-flowered Peaches, Cherries and Wistaria sinensis should be retained; in fact, the Wistaria and some of the double-flowered Cherries may be grown in pots and forced successfully several years in succession. Rhododendron sinense, better known perhaps as Azalea mollis, is a plant which does not pay for forcing a second year, while it usually takes several years to become strong enough to force a second time. Really fine plants carrying forty or fifty buds may often be purchased at from 9d. to 1s. 3d. each, and when once forced may either be planted out permanently or be thrown away. Evergreen Rhododendrons, again, rarely give satisfactory results if forced two years in succession, but a year in nursery quarters is often enough to enable them to pull themselves together and set sufficient buds to warrant their being forced again. The Lilac is another shrub which cannot be forced profitably in two successive years, while it pays to let it have two years' rest between the periods of forcing. The most satisfactory results are obtained by cutting forced Lilacs well back after flowering, then allowing but a few shoots to mature, the remainder being rubbed off while quite small. The succeeding year a few shoots only are again left to mature, which allows the maximum of strength to go to these shoots to form well-matured wood and buds.

In most kinds good, vigorous shoots are required on plants which are to be forced, and this is particularly the case with Spiræas, Deutzias, Forsythias, and the double-flowered forms of Prunus japonica, P. triloba, Kerria japonica and Peaches; but in a few instances stunted growth proves most productive of flowers. The best example of this is Wistaria sinensis, for it never blossoms better than from stunted spur-like shoots.

The size at which shrubs may be forced depends on the size of the forcing structure, for though, usually, comparatively small examples are used, fully developed specimens of Guelder Rose, Lilac, Forsythia suspensa, Rhododendrons and many other kinds may be requisitioned. Should large plants not be required for future planting, but can be thrown away as soon as the flowers are over, the roots may be reduced to a moderate extent to save pot-room, or the balls may be bound up in mats and stood in baskets or boxes during the time they are indoors. It is always necessary to remove forced shrubs from the forcing

house to a cooler structure as the flowers begin to open, or the flowering period will be a very short one. Flowers which fall quickly, such as Azaleas, may be made to remain on the plants for a fairly long period by fixing them with floral gum, which may be obtained from any seedsman or horticultural sundriesman.

It is only necessary to mention a few of the many shrubs suitable for forcing—others will readily suggest themselves to the minds of those who wish to force a larger collection: Spiræa arguta, S. van Houttei, S. confusa, S. prunifolia flore-pleno, Deutzia gracilis, D. parviflora, D. Lemoinei and all the gracilis varieties and hybrids, Forsythia suspensa, Prunus persica flore-pleno, P. serrulata, P. triloba, P. Pseudocerasus, P. japonica flore-pleno, Pyrus floribunda, P. Scheideckeri, Wistaria sinensis, Neviusia alabamensis, Japanese Maples, Weigela or Diervilla Eva Rathke and other kinds, Viburnum Opulus sterile, V. tomentosum plicatum, Robinia hispida inermis and Rhododendrons, deciduous and evergreen. All are, however, not suitable. Of deciduous ones R. sinensis and its numerous varieties and forms of R. flavum and R. calendulaceum are the best, while the earlier-flowering evergreen kinds answer more satisfactorily than the later ones. In addition to these there are many other kinds, such as Magnolias, Hydrangeas and Kerrias, which may be pressed into service. W.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 6.—Royal Horticultural Society's Exhibition of Bottled Fruits at the Royal Horticultural Hall, Vincent Square, Westminster. Lecture at 3 o'clock by Mr. C. Herman Senn on "The Cooking of Vegetables."

December 6.—Scottish Horticultural Association's Meeting. British Gardeners' Association Executive Council's Meeting.

December 8.—British Gardeners' Association's (London Branch) Meeting.

Dr. D. H. Scott, F.R.S. — This well-known botanist, famous for his researches in paleontology, especially in connection with the fossil flora of the coal measures, has been elected a corresponding member of the Munich Academy of Sciences. A similar honour has been conferred upon Dr. L. Fletcher, the Director of the Natural History Museum, South Kensington.

Mr. T. E. Henwood.—It has been proposed to present Mr. T. E. Henwood with a suitable testimonial at the joint annual meeting of the National Carnation and Auricula societies. Mr. Henwood has now reached his twentieth year of office as hon. secretary and treasurer of these societies. Subscriptions may be forwarded to Mr. James Douglas, jun., Great Bookham, Surrey.

Saltaire, Shipley and District Rose Society.—We have just received the balance-sheet of the above society for the year ending November, 1910, and note with pleasure that the society has made a net profit during the year of £58 11s. 5d. The 50-guinea trophy, presented by G. C. Waud, Esq., a past president of the society, was won at the last show by Messrs. Alex. Dickson and Sons, Limited, this being the fourth time in succession, and it is now the property of Messrs. Dickson. The society is now making arrangements for a 100-guinea trophy, and this will either be offered in the class for seventy-two or forty-eight blooms, distinct. The exhibition next year is fixed for Tuesday, July 11, when the committee hope to have a record show. The hon. secretary is Mr. E. Wright, Rosedene, The Glen, Saltaire.

National Rose Society's exhibitions during 1911. — The metropolitan show in connection with the above society is to be held in the Royal Botanic Gardens, Regent's Park, on Friday, July 7; the provincial show at Ulverston on Wednesday, July 19; and the autumn show at the Royal Horticultural Hall, Vincent Square, Westminster, on Thursday, September 14.

Arbor Day at Sandgate.—The executive committee of the Sandgate society met at Castle Glen on the 19th ult., Mr. Mark W. Judge in the chair, to consider the further arrangements for celebrating the institution of an Arbor Day for Sandgate. Letters were read from Sir Edward Sassoon, M.P., the Poet Laureate, Sir Alexander Cockburn, Sir W. Hart-Dyke, Sir Martin Conway, Mr. Henniker Heaton, M.P., Mr. T. C. Horsfall, the Rev. Canon Rawnsley, Mr. Richardson Evans, and Mr. E. D. Till of Eynsford. Sir Edward Sassoon and others were only able to give a conditional promise to be present. Canon Rawnsley wrote: "I believe that nothing but good can result from this attempt to interest young England in the material world of birds and trees and flowers. We as educationalists must help by getting our people to take an interest in the sights and sounds around them. If we could get the working-man, in town and country alike, to know what joy is added to life by being able to share the companionship of the changing seasons, to make real friends with bird and tree life, I am sure they would feel it to be their duty to press forward the Arbor Day movement." The Sandgate society is meeting with every encouragement, and has already obtained from the Folkestone Corporation, the Manor Estate, and Mr. Brockman their approval of the proposed planting of trees at Castle Green.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The cooking of vegetables.—Very rare is the occasion on which reference to vegetables and their culture is made that some remarks relating to the cooking of vegetables, sometimes serious and sometimes sarcastic, are not offered. Too largely the proper cooking and presentation to table of vegetables for consumption as good, healthful, wholesome food is neglected, yet all the skill of the grower is sheer waste unless his products are prepared in such a way that they shall be food in the very best acceptance of the term. It seems harsh criticism, but we often see various roots or other vegetables prepared for the feeding of cattle, and especially for fattening them, with as much care as are vegetables for human food, and sometimes with even more. In preparing vegetables for consumption it is essential that there be preserved their natural flavours, and the flesh or bone forming element also be so presented as to be of easy digestion or assimilation. For these reasons, therefore, it is specially interesting to learn that a well-known amateur gastronomist, Mr. C. Herman Senn, will lecture on this topic before the Fellows of the Royal Horticultural Society on Tuesday afternoon next, and no doubt a considerable body of persons, ladies especially, will be interested listeners. It would be well also if some of the instructors of cookery attached to our elementary and secondary schools could attend, as, in spite of their professional knowledge, many of them seem to have much to learn in relation to vegetable cookery. Especially should this lecture create much interest in the minds of the members of the National Vegetable Society, as that body is very full cognisant of the importance in relation to the proper presentation of vegetables to the table of good, clean cooking. It will be well if the general meeting of members of the National Vegetable Society called for an hour earlier than the lecture hour can be concluded in time to liberate all who may wish to hear Mr. Senn. It is greatly to be regretted that the most excellent little book entitled "The Art of Preparing Vegetables for the Table," published by the eminent firm of Messrs. Sutton and Sons, Reading, in 1888, should now be out of print. Were it to be had such a book should, now that vegetable culture is getting a new awakening, be sought for and read by many thousands of persons.—A. D.

London County Council's park appointment.—Is there not something to be said in favour of this? Each park has, I suppose, its head-gardener, who is left a fairly free hand and can exercise his ingenuity and taste in affording fresh and beautiful effects. Now, if a professional gardener was in command of the whole department would there not be a danger of his imposing his own ideas too much on all, and thereby, to a large extent, paralysing efforts for originality? Surely that which is much to be sought after is that each park should be noted for some special effects, and the last thing that it should be possible to say about them from a gardener's point of view would be that "having seen one we have seen all." I can, therefore, quite understand that it was the wisest course to appoint someone who would have no temptation to interfere in the actual work of design and planting, but would occupy himself in organising supplies and general superintendence. J. ALEXANDER, *Orpington*. [We publish the above note so that both sides of this important question can be brought before the public. Needless to say we do not agree with our correspondent's statements.—ED.]

—— "The London County Council invites applications for the appointment of chief officer of its parks department, who will be required to give his whole time and energies to the duties of his office. Members of the staff of the Council are not precluded from making application for the position. . . . The parks, &c., are 114 in number, and are about 5,100 acres. . . . The average number of staff is 1,000, including men well qualified as specialists in their separate departments. . . . A knowledge of surveying, *landscape gardening, forestry and horticulture* desirable. . . ." The above is an extract from an advertisement which appeared in THE GARDEN in July last, and our "business" Council have appointed a retired military officer, whose sole claim to the post seems to be that he supervised the construction of a cricket lawn at Aldershot. I believe it is usual in all business houses to advance men as vacancies occur, and it would be interesting to know if any applications were received from among the staff of 1,000 men employed by the Council. It is a great shame that these lucrative appointments should be given to outsiders, who have no claim whatever and can know nothing of the duties that have to be performed. It is a great shame (I had almost written scandal) that a salary of £700 a year should be given to a man who is already probably drawing a substantial income from the public purse in the shape of a pension or retired pay. I have no doubt the Council could have got a better man for half the

salary, and they could have utilised the other half in giving the gardeners another shilling a week. I am not a gardener by profession; I am only one of the unfortunate people who have to live in the London County Council area, and as a ratepayer I protest against this appointment. No one begrudges the money spent on our parks and the men who do the work. The gardeners should certainly take some action, and great credit should be given to Mr. Jenkins in taking the initiative, and whose advice seems to me excellent. Is there not also some chance of the Royal Horticultural Society taking action in the matter? There are among its members gentlemen of position and influence, most of whom are readers of your excellent journal, I have no doubt. There are possibly some Members of Parliament who could raise the question in the House of Commons; and is there no society in London that could convene a public meeting in London and call the ratepayers' attention to it? Also the members of the Council who voted against this appointment should be asked to raise the question again. For the credit of the Council itself the matter should not be allowed to drop, though this is the second time it has occurred. Whatever action is taken, I believe that the ratepayers of London will give their support and condemn this appointment, which seems to me to be entirely against their interests. Of course, it may be, and probably is, only an ornamental post; but whatever it is, this present appointment is certainly a great waste of the ratepayers' money. I sincerely hope that gardeners throughout the country will take some action.—RUS IN URBE.

—— May I crave a small space in your valuable paper to make a few remarks in reference to the above subject. Mr. Jenkins, in THE GARDEN for November 19, wonders why the British Gardeners' Association has not taken the matter up. May I remind him that, when the position became vacant some time ago and the late Major Enthoven was appointed, the British Gardeners' Association, through its executive council, passed a resolution and forwarded the same to the chairman of the London County Council protesting strongly against a military man being appointed to the position of chief gardener to the London County Council. Not only that, but several of the societies connected with the gardening profession protested strongly against it. And what has been the result? The same thing has happened again, and the profession has been insulted by having a military officer placed in one of its best positions. I wish your correspondent every success in his laudable effort to bring the matter more before the public eye; but at the same time I fail to see what good any resolutions will do from mutual improvement associations. Now, I do not say a word against mutual improvement societies; they are excellent institutions for disseminating knowledge, and no doubt do a deal of good; but I do protest against a society styling itself a gardeners' society and consisting at the same time of a mixed membership of gardeners, ex-policemen, ex-soldiers and others. A protest made by such a mixed body of men would, I think, only bring upon itself ridicule. The remedy against a recurrence of such appointments as these is in the hands of the gardeners themselves. Let them combine together into one powerful organisation and compel respect by insisting on their rights. The British Gardeners' Association is successfully struggling on, and when the tide of prejudice has turned and the membership amounts to 20,000 instead of 2,000, we shall then be able to work out our own salvation, remembering that "Union is Strength."—J. WOOD, *St. John's Lodge, Regent's Park.*

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY VINES.—It is not advisable to use too much fire-heat in forcing at this season, and those Vines which were started early in November should be kept going quietly. Until actual growth is perceptible in the buds a night temperature of 55° to 60° Fahr. is ample. If the Vines are growing in pots and plunged in leaves, the warmth of the bed should be maintained by adding fresh leaves. If the rods were bent round at starting, they should be tied up in their proper positions as soon as the buds break into growth.

Peaches.—A house containing Hale's Early, Alexander and similar varieties may now be closed. If the border was not watered when top-dressed at the completion of the cleaning operations, a thorough soaking should now be given. Peaches strongly resent hard forcing, and it often causes the buds to drop. The trees may be syringed at midday on bright days.

FLOWER GARDEN.

Violets in Frames.—Free ventilation must be afforded at every opportunity, and the lights pulled quite off when the weather permits. In some of the damp, foggy districts it is most difficult to grow Violets under any method of cultivation, and, where they grow freely, no coddling beyond protection against frost must be allowed. The plants derive great benefit if the soil is frequently stirred with a hand-fork. An occasional dressing of some approved fertiliser should be given and all runners kept closely picked off.

Border Carnations.—During dry, open weather the beds should be frequently stirred with the hoe and an occasional dusting of soot afforded the plants.

Ivy Beds.—The bare, unsightly places which often occur under specimen trees growing on lawns may be easily remedied and made to look well by planting Ivy. The work should be taken in hand at once, breaking the ground up a spit deep and putting in cuttings thickly, that is, about 9 inches to 12 inches apart. These soon root, and in a year's time a good Ivy bed is the result. Pretty effects are obtained by planting Daffodils among the cuttings.

KITCHEN GARDEN.

Lettuces.—A small sowing of either Golden Ball or Golden Queen should be made in pans or boxes and placed in gentle warmth to germinate. As soon as the seedlings show above the soil they should be put on a shelf as near the glass as possible to promote sturdy growth. They may be transplanted into boxes when large enough to handle, and when ready planted in a frame on a bed of leaves, which will give a nice, gentle bottom-heat suited to them. With careful attention the salad will be ready early in the New Year.

Carrots.—A mild hot-bed will shortly be required; therefore the material must be collected. Half stable litter and half leaves, well mixed together and turned two or three times, provides an excellent bed. When the frame has been placed in position, a few inches of fine soil should be put in, and it will then be in readiness for sowing. Early Nantes is a good variety for the purpose.

E. C. POOLEY.
(Gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

CHRYSANTHEMUMS.

CUTTINGS.—Many of the finest varieties are very shy to throw cuttings; in consequence every one that shows should be secured. It is of no use waiting until a good number appear, as those ready now will gradually grow too long and soft to make good stock. As every gardener knows, root suckers invariably make the finest plants, and eventually give the best blooms. When, as sometimes happens, no root cuttings are available, recourse must be had to stout, short-jointed shoots that spring from the stems. If only for conservatory decoration, several cuttings may be placed round the edges of 3-inch pots. Set in a house or pit from which frost is excluded.

FRUIT-HOUSES.

Vineries.—All Vines, save the very latest, will by now have ripened their wood, and should be pruned. All loose bark should be removed from the rods, and if mealy bug or other pests have been troublesome, extra care should be taken in applying a suitable dressing. Most gardeners have their own pet mixtures for this. A very effective method is to first paint the rods, eyes and all, with a thin solution of Gishurst Compound. If used slightly warm it will run into all cracks and holes on old Vines and destroy most of the pests lurking in these places. After it has dried, go over the Vines with a piece of the pure Gishurst Compound and "putty" up every hole or crack. Another dressing of the compound in solution will finish the work on the Vines. Before doing this it is well to thoroughly scrub every bit of wood and glass in the vinery with strong soap-suds, whitewash walls and remove every particle of rubbish that is likely to harbour vermin of any kind. Top-dress the borders with fresh turfy loam after first removing 1 inch or 2 inches of the old soil.

Peach-houses.—Somewhat similar treatment to that recommended above for Vines should be afforded the dormant Peach trees. If no pests have had a footing during the past season, the trees need not be painted with insecticide, but will be all the better for being well syringed with some approved liquid insecticide, as it is always much easier to keep clean than to make clean. Peach buds are much more easily damaged than are Vine eyes, so if "painting" is necessary, great care must be used not to rub them off.

PRUNING HARDY FRUITS.

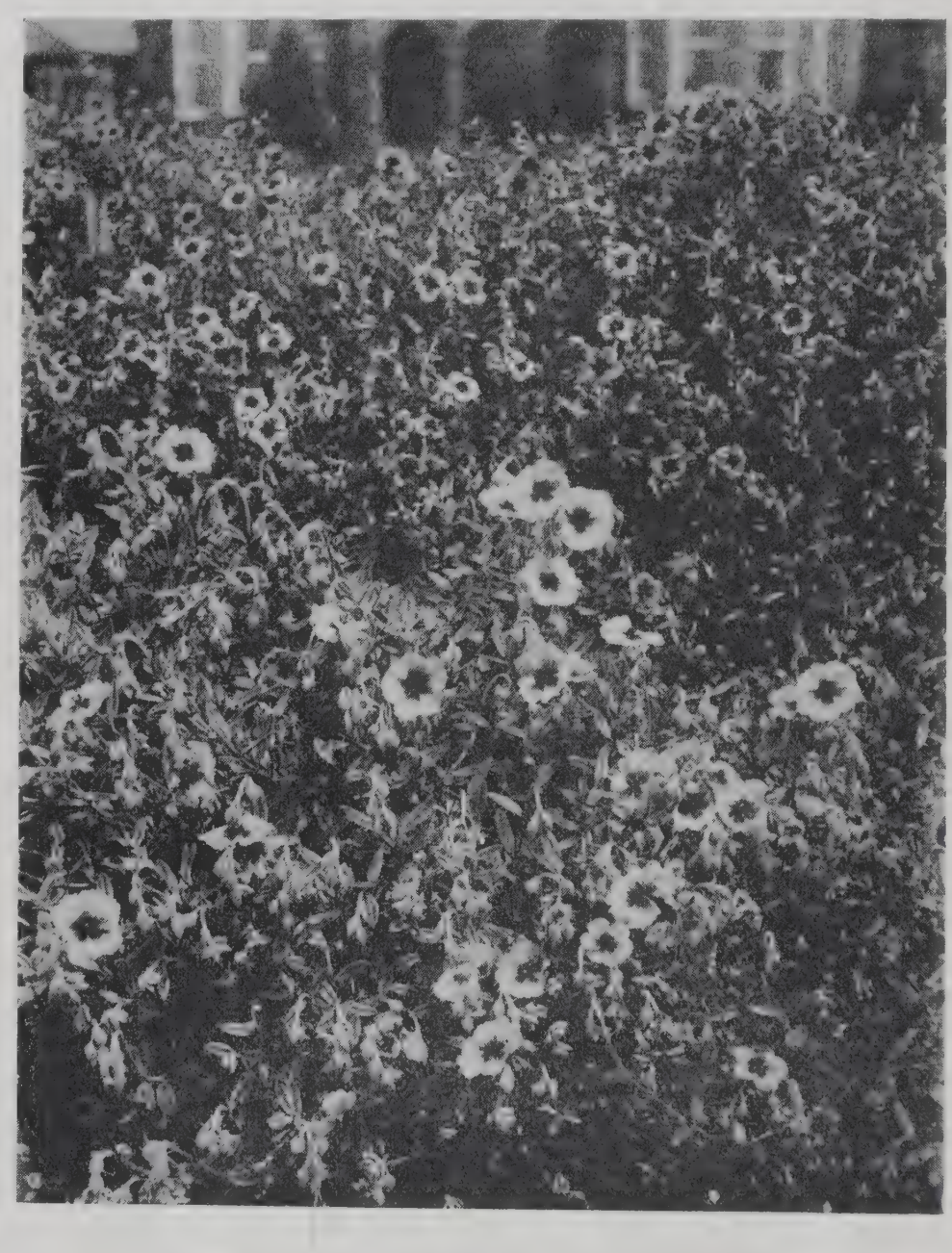
Gooseberries.—Much diversity of opinion exists as to the proper method of pruning this popular fruit. Some advocate no pruning at all, others spur the bushes like they do the Red Currants, while some have a liking for a medium course. I think that soil and locality have a good deal to do with this matter of pruning. Long ago I remember that spur-pruning of Gooseberries was universal in the Dumfries district, and finer crops I have never seen. In this district this method will not answer. I have tried all the ways, and obtain most satisfactory results by well thinning out the bushes and shortening back the young wood to about half its length. Leaving the shoots full length gives a good crop of smaller fruits, but the bushes get very straggling and much lashed about with rough winds. Whichever method suits the locality should be adopted, and, no matter what this method is, the bushes should always be well thinned out so as to admit sunshine and air to every part. When thinning always cut away the older branches. C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

TREES AND SHRUBS.

THE SUN ROSES.

(HELIANTHEMUMS.)

IT is a curious fact in one's garden life how a certain flower or a certain group or family of plants suddenly assumes a position of prominence out of all proportion to that which it previously held in our individual estimation. Sometimes this seems to happen for no particular reason, and we are unable to account for the strange new fascination which it has aroused in us. Sometimes it may be the sight of the old familiar friend amid new surroundings which brings into prominence unnoticed beauties; while in other cases it may be that the plants have, as it were, donned new garments, and the change of raiment strikes us as suiting them far better than the old. Something of this kind has happened to me with regard to Sun Roses. I have known them in gardens for many years, and I must own I have always had a sort of sneaking admiration for them. But now, ever since I saw the magnificent display that these heretofore almost unnoticed plants made in the early days of last June in my friend Mr. E. P. Thompson's garden at Pauls Moss, Whitchurch, my feelings have undergone a strange transformation, and I wonder how it is that I had not appreciated them before as I do now. Nine-tenths of the reason is that I saw them at just the right time in the morning of an ideally sunny day, and the fine new hybrids and seedlings which represent the patient and painstaking selection of the gardener, Mr. W. Webster, during a period of from ten to twelve years, were to be seen at their very best. The illustration entitled "New and Old Forms of Helianthemums" shows very graphically the great improvement in size of bloom that he has brought about. I measured a good many flowers on both old and new varieties. Those on the former averaged an inch, or just under an inch, in diameter, while on the latter they were 1⅝ inches across. Not only in size, but in colour was the change pronounced; many new shades of salmon pink and orange and orange red were mixed with the older tones of burnt sienna, vermilion and yellow, and formed a striking colour-picture. I wonder why this hardy section of the Cistineæ (Helianthemum) has never been taken up by hybridists and developed. In some correspondence which I have had with Mr. W. Dallimore about these Pauls Moss Sun Roses, he incidentally told me that, as far as he knew, very few people grew really good collections, and when, some years ago, he wished to increase the Kew collection, "he had to obtain a few kinds from one place and a few from another, as nobody appeared to grow many." I saw the Kew collection this summer, and I can honestly say they were not a patch on those of my friend.



NEW AND OLD FORMS OF HELIANTHEMUMS.

The first quarter of last century was a time when many new species and varieties were introduced from North America and Southern Europe, and I think we may safely assume, from the publication of such an expensive work as Robert Sweet's "Cistineæ," which contains 112 beautifully-coloured figures of some of the most striking of the family, and which was finally issued in one octavo volume in 1830 at a cost of no less than four guineas, that both Rock Roses and Sun Roses were then popular plants with the garden-loving public. From that time up to the present I am unable to trace any period or periods when Sun Roses were particularly in vogue. It seems, comparatively speaking, an almost virgin field in which to experiment. Mr. Webster has shown us what can be accomplished by selection and possibly by cross-fertilisation; but surely there must be a possibility of hybridising some of the many varieties of Helianthemum with some of the Cistus family, and so creating new types of beauty! It may be that this has been attempted, but, if so, I am ignorant of it, and am unable to chronicle the result.

Helianthemum vulgare is a native of Britain, and is a most variable plant. It has given rise to a few double and a good many single varieties of the latter; probably the best-known is Ball of Fire. The nomenclature is, however, anything but fixed, and so I refrain from giving a list of varieties. A selection with which to start a collection may probably be obtained from Dicksons of Chester, Smith of Newry, Smith of Darley Dale, Amos Perry of Enfield, or Wallace of Colchester.

Cultivation.—In order to help anyone who wishes to take up the culture of these very interesting plants, I cannot do better than outline the practice of Mr. Webster, whose success in this direction is very great (see illustration on page 597). The picture depicts a rather flat rockery facing due south, with some fine young plants full of bloom and looking remarkably happy. The soil in this part of the garden at Pauls Moss is dry and sandy, and as these seem to be just the conditions that Sun Roses like, he has made no attempt to do anything to it, but very wisely has left well alone. The next important factor is to ensure a regular succession of young plants. Mr. Webster sows seed as soon as it is ripe in August, and winters the young plants in a Peach-house or other similar structure where they can be kept free from frost. By this means he almost always gets one or two blooms from the young seedlings their first summer and so is able to discard at once any varieties that do not come up to his standard. Propagation is also effected by cuttings. He has found the best time to take them is in early September, from well-ripened young wood with a heel of older. Five of these are inserted in a 3½-inch pot, and then all the pots are put in a cold frame and buried up to their rims in fine ashes. Here they remain during the winter. Mr. Webster considers the plants (both those raised from seeds as well as those from cuttings) are at their best when three or four years old, and he seldom keeps any after they have passed this age. Certainly his treatment suits them. Every clump looks the picture of health, and the whole collection forms a mass of brilliant colour which has to be seen to be realised.

Who is prepared to join in the exploration of this rather unknown corner of the great world of flowers? JOSEPH JACOB.

APPLE CHELMSFORD WONDER.

WE have a culinary Apple of handsome appearance and of superior flavour in this variety. Indeed, it is a first-rate sort, worthy of far greater attention than is usually bestowed upon it by fruit-growers in general. It is well adapted for training as a pyramidal tree on the Paradise stock, an example of which is shown in the illustration on page 599. Unlike most Apples, it appears to fruit better as a pyramid than when grown as a bush, and owing to its rather free manner of growth the trees should be planted about 10 feet apart. In colour the fruit is a deep yellow, shaded to a brilliant carmine on the side exposed to the sun, and marked with irregular streaks of a deeper crimson. It comes into use in the early winter, and may be kept in good condition until the spring. Not only are the fruits very attractive in appearance, but they also possess a delicate aroma, and these qualities, combined with its full flavour and yellow flesh, serve to recommend it as a dessert as well as a culinary fruit. Some time ago the fruit committee of the Royal Horticultural Society conferred upon it an award of merit, and so highly was the variety esteemed that it afterwards received a first-class certificate. This variety is a sure cropper, a point to be borne in mind now that we are in the midst of the planting season.

COLOURED PLATE.

PLATE 1414.

SWEET PEA PARADISE APPLE BLOSSOM.

WE have from time to time received complaints from readers about the naming of new varieties of Sweet Peas, it usually being argued, and not without some cause, that the name gives no idea of the colour of the flower. This cannot be said of the variety Paradise Apple Blossom, of which a coloured plate is given with this issue. A bunch of well-grown flowers resembles very much indeed gathered sprays of Apple blossom, and this is saying a great deal. It was raised by Miss Hemus, Holdfast Hall, Upton-on-Severn, and when shown by her before the floral committee of the Royal Horticultural Society on June 8 last year received an award of merit. It belongs to what is known as the fancy section, and should prove particularly useful for decorative purposes. We are indebted to Miss Hemus for the flowers from which our coloured illustration was prepared.

THE FLOWER GARDEN.

SWEET PEA CHAT.

VARIETIES CATALOGUED.

THERE is not the slightest doubt that in some respects we owe an immense debt of gratitude to Miss Hemus for the introduction of what she is pleased to term her Paradise Sweet Peas. It is true that these varieties have not been particularly favourably received by the National Sweet Pea Society; but that may easily be due to the flowers not having been placed before the powers that be in perfect form, and must not be accepted as ruling them out of the foremost rank. There are those who do not hesitate to assert that, because blooms have been exhibited in magnificent form at other exhibitions, the committee of the parent society should give awards without demur; but this is not an altogether satisfactory line to take, and although it may appear to bring occasional injustice, the proper principle is to judge the flowers as they are shown, and not as they have been staged in the past and may be again in the dim and distant future. Examples of varieties from Miss Hemus which would receive universal votes were a plebiscite taken are Helio Paradise and Evelyn Hemus, and yet neither has had, if my memory serves me aright, the first-class certificate of the National Sweet Pea Society. Thus we see that, although a particular Sweet Pea may, for some inexplicable reason, miss the highest honours, if it possesses conspicuous merit it will soon find its way into the hearts and gardens of growers throughout the length and breadth of this and other countries.

Acknowledging forthwith, then, that beauties have come from Upton-on-Severn in the past, it is necessary to consider what we may expect thence in the immediate future. In each instance the description is that of the raiser, and none of those named is yet in actual commerce, but all have been seen at various exhibitions during 1910. I have no doubt that others, like myself, have made copious notes of the majority of them; but it is, nevertheless, deemed preferable to adhere to Miss Hemus's own opinions as to colours. Personally I should join issue with her in more than one idea of colour; but as a mere man I would not dare to assert that my description is better than a lady's.

In order to save repetition, it may be generally observed in reference to this group that it is characterised by the size, substance and waviness of the flowers, and that in very few instances are there traces of that excessive vigour which is apt to give blooms an ungainly, floppy appearance; growers who go too far in feeding and other directions may develop it, but it is not an inherent fault of the varieties. Among those which clearly describe themselves are Lavender, Apple Blossom, Peach Blossom, Scarlet, Cerise, Purple, Orange, and Blue, and all alike have either the hall-mark "Paradise" before or after the distinctive colour appellation. For Paradise Pearl it is claimed that it is the largest pure white in commerce for exhibition, and, while not entirely endorsing these views, I have no hesitation in saying that it is of decided merit. Paradise Moonstone is a pale opal which is at once attractive, distinct and charming. Paradise Brilliant differs from Cerise in having a bronze suffusion through the standard; it is a handsome flower.

When Miss Hemus departs from Paradise—as far as Sweet Peas are concerned, of course, only is meant—she goes to the family name, and with an apparently inexhaustible supply of relations, the varieties with "Hemus" in them are becoming more numerous year by year. This seed-sowing season will see no fewer than four added, and each is worthy of close consideration when the orders are in course of preparation. Some resemble others raised by different people; but growers must rely upon their own judgment in compiling lists. Guy Hemus is a clear, pale blue, while Linda Hemus is a silvery mid-blue, and both are shades with which we can very well do, even in these days of innumerable sorts. Elizabeth Hemus is a soft pink of exquisite shade, while Mrs. Herbert Hemus is waved magenta, which is not a colour that appeals to all tastes.

Messrs. E. W. King and Co. are probably far better known as seed-growers to the trade than as raisers of Sweet Peas; but they have given us one or two splendid varieties in the past, and it is likely that they will give us others in the future. For 1911 they offer, through the retail trade, Anglian Lavender, Anglian Pink and Anglian Orange, which talk about themselves, with Essex Beauty (very pale blue) and Queen Mary (pink on a cream ground). Needless to say, these all belong to the waved section and produce large flowers.

SPENCER.

AN INTERESTING AUTUMN FLOWER.

(ANTHOLYZA PANICULATA MAJOR.)

THE best of all the Antholyzas for the open air is A. paniculata, which is decidedly ornamental with its handsome plaited, Gladiolus-like leaves and its panicles of scarlet and yellow flowers. When well grown a good clump of this plant is almost unique in the garden in autumn, and its very singular appearance, distinct from anything else—even from the allied Montbretias—assures it of notice from visitors. This is a good and free-flowering plant, and hardy well north of the Tweed if planted 6 inches deep in well-drained soil and given a slight protection with litter or ashes for the first winter. But it is well in cold districts to allow the old foliage to remain over the plant until spring.

HELIANTHEMUMS IN THE ROCKERY AT PAULS MOSS, WHITCHURCH, SALOP.

I would, however, warn readers against purchasing what should be a finer plant, in the shape of one sold as A. paniculata major. So far as its foliage is concerned, this is a superior plant for effect in the garden, the leaves being taller, reaching to 4 feet or more in height, while the flowers are still more elevated and are borne in good-sized panicles. They are not so bright in their colour, the scarlet being somewhat duller and the yellow more tawny than in the typical A. paniculata. A more serious defect is the late period at which this form comes into bloom, and for a number of years only a spike or two opened in an unusually early season in my garden. Last year it flowered a little better, and this season, much to my surprise, the first flowers opened on August 14—earlier than I have ever seen them, so far as my memory serves me. In most instances, however, it comes too late for the flowers to be of assistance in the autumn display, save in warm and favoured gardens. It is quite as hardy as the type.

Dumfries. S. ARNOTT.

THE ROSE GARDEN.

ROSA PIMPINELLIFOLIA OR SPINOSISSIMA.

CULTIVATORS of the Rose species know well that they vary considerably, and that plants grouped together by botanists present considerable differences in gardens, entitling many of them to a special name. That figured in the accompanying illustration was sent to me as pimpinellifolia, and differs from R. spinosissima, the Burnet or Scotch Rose, as the fruit is not black, but a dull brown, and is longer than that of the Burnet Rose. The flowers are also purer, the plant is more erect, and it has a tendency to flower twice a year. As a Rose for the wild garden or the larger rock garden this is excellent, and in the position shown in the illustration it looks very well indeed for a considerable portion of the year. It is planted beside a tree trunk well up on a rockwork bank, and as it spreads freely at the roots, it has formed a nice clump round the base of the tree. Here in June, and generally again in late September or October, it affords us a number of its pretty single white flowers, which look so well against the dull green foliage.

ROSA PIMPINELLIFOLIA IN A SCOTTISH GARDEN.

This Rose came to me from a friend in Gloucestershire, and it has given me no trouble during the many years I have had it, with the exception of digging out some of its suckers when it showed a desire to spread beyond the space I had allotted to it. Being on its own roots, it suckers freely, yet not in a troublesome way. It grows about 3 feet high, and has proved perfectly hardy over a long series of years.

S. ARNOTT.

NEW ROSES FOR FORCING.

THERE was a time when the public were content with a very small collection of Roses for this purpose. If one could grow a good pink, white, yellow and crimson, this was sufficient. But the case is different now. The remarkable strides made in Rose raising has whetted the appetite of buyers of forced flowers so much that if a novelty has been well exhibited at the summer shows it is frequently enquired after in the late winter and early spring. When our large growers of forced Roses bring up quantities of Richmond we think surely nothing will ever surpass these. Now we have a variety that is even more brilliant than Richmond, named

Georg Reimers, a cross between Richmond and Etoile de France. This cannot fail to be a popular Rose, for it possesses a fine long bud and is very fragrant.

Edward Mawley will undoubtedly eclipse all Roses of its colour when its raisers put it on the market, which will be, I believe, next spring. Messrs. McGredy inform me that the Rose was not seen at the National Rose Show in anything like its natural colour, and those of us who saw it there were simply astounded at its beauty and grandeur. I am told that when forced Edward Mawley is of the colour of a young bloom of Duke of Edinburgh, and one great quality about it is that it never burns, no matter how hot the weather. Mr. E. G. Hill, who is one of the best judges of Roses in this country or America, says: "It is the best dark crimson Rose, or Rose of any kind or colour I have ever seen. There is nothing to approach it either in America, France or England among all the Roses I have seen, new or old, both as regards shape, form, habit of growth, colour, freedom of blooming and every point that goes to make an ideal Rose. It stands supreme, throwing up its perpetual habit of growth so freely from the base, carrying every bloom perfectly rigid." This opinion is endorsed by Mr. Wallace of Dunstable, both gentlemen having seen the Rose in its home. I shall be much surprised if

Jonkheer J. L. Mock (H.T.) does not prove to be another winner. It is a Rose after the style of Farbenkönigin, only that the colour is more intense, a wonderful commendation when it is remembered what a glorious colour this Rose is under glass. Mr. Peter Lambert, the raiser of Frau Karl Druschki, says: "It will become a world-wide Rose like Testout, Kaiserin and Druschki." It has in its blood Caroline Testout, Abel Chatenay and Farbenkönigin, being a compound cross of all three. In the North of England this Rose has been a great success outdoors this season, and there is every reason that it should prove useful for forcing.

Mrs. Walter Easlea (H.T.) is a variety of exceptional merit for forcing, the colour under glass being a very intense crimson-carmine, surpassing Roses of the Marquise Litta type, while in growth it is splendid. Being so deliciouslyi perfumed, it cannot fail to become a popular Rose both for indoor and outdoor culture. American growers have formed a very high opinion of this variety as a forcer, and it is seldom they make a mistake. Other high-coloured varieties I have formed a good opinion of are

Lieutenant Chaure (H.T.), one of M. Pernet-Ducher's excellent productions, having Liberty and Etoile de France for its parents. The other is

Prince E. C. d'Arenberg (H.T.), having Etoile de France and Richmond as parents. The colour is bright scarlet with a purplish shading.

Lady Hillingdon has now established itself a name, thanks to the bold style it has been exhibited, and the low price for a first-class novelty should secure for it a large and wide distribution.

Entente Cordiale may in time eclipse Kaiserin Augusta Victoria, a Rose with which it has much resemblance save colour, which is more creamy yellow. Possessing as it does Mme. A. Chatenay habit and delicious fragrance, it cannot fail to be a beauty.

White Killarney will also be a valuable addition to white Roses, and is already handled in large numbers in the States.

Souvenir de Gustave Prat (H.T.) is another of Pernet-Ducher's novelties, having pure sulphur white blossoms, the buds specially long and beautiful.

My Maryland (H.T.) is a splendid pink variety, one that may displace Bridesmaid and Killarney. It is brighter in colour and stronger in growth than the latter, and the flowers are very full; of American origin.

Molly Sharman Crawford (Tea) is an exquisite Rose, very pure white, large and full, produced on erect growths resembling the Hybrid Teas.

Mrs. Herbert Stevens will also make a splendid forcer, I feel sure, for it possesses that excellent pointed bloom so much loved by florists. One of the best of the Rambler section is

Excelsa, a Rose that may displace Crimson Rambler, for it possesses a more graceful growth; it belongs to the wichuraiana class.

Orleans Rose is, without a doubt, the best of the Dwarf Polyantha varieties. The pyramidal trusses of bloom are of immense size, making a highly decorative pot plant.

P.

THE KITCHEN GARDEN.

BRUSSELS SPROUTS FOR WINTER AND SPRING.

GARDENERS, either professional or amateur, it is almost needless to remark, attach great importance to Brussels Sprouts, and give extra care and attention, both to their cultivation and the selection of the best and most approved varieties, to meet the demand during the autumn and spring months. Some gardeners go to the trouble of sowing the seed in August in well-prepared beds made moderately firm, and when the seedlings are large enough prick them off 4 inches or 6 inches apart in cold frames or some kind of sheltered position where, in very severe weather, protection can easily be afforded. This method may in the colder climes have much to recommend it, but in the more favourable parts I do not think it necessary to sow the seed at that time, spring being quite early enough to raise the plants for most purposes.

SWEET PEA. PARADISE APPLE BLOSSOM

I am well satisfied with our crops, annually produced from plants that are raised from seed sown in the open on a sheltered border in March, pricked off in nursery beds when large enough, and finally put out on deeply trenched land the first week in June. These invariably yield enormous crops of firm, medium-sized Sprouts from October to March, and sometimes April, according to the lateness of the season. The varieties I grow, and which prove the most useful, are Exhibition, Paragon, Wroxton, Covent Garden Market and Sutton's Dwarf Gem. The latter, if I were limited to one variety, would be given the preference.

For many years I grew May's Northam Prize, and when I obtained the stock true I had no other variety to equal it for supplying solid Sprouts late in the season. For this crop I always like, if the land is at liberty, to trench it up early, so that by the time the plants are fit to put out the soil may have settled somewhat firmly. Brussels Sprouts thrive best in a rather firm soil, well enriched with manure which is thoroughly decayed, and ample space for the full development of the plants is, of course, necessary.

H. MARKHAM.

Wrotham Park, Barnet.

SOME NEW VARIETIES OF EARLY PEAS.

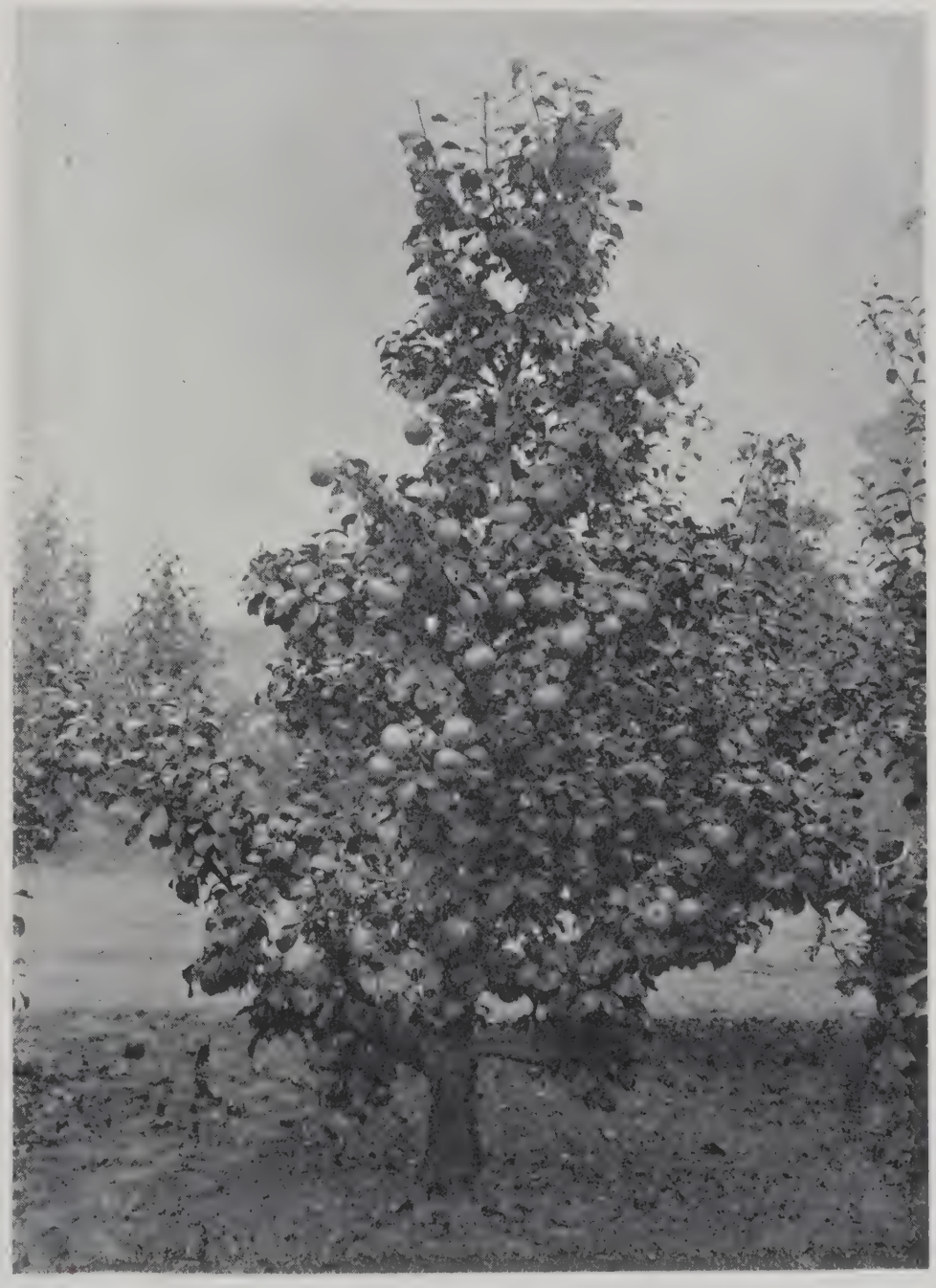
AT this date much may be done to forward an early crop of Peas. Of course, my note mostly applies to the first crop. At the same time, by this I do not advise much artificial heat, and with this in view to point out reliable varieties is an important detail in culture. The old method of sowing in the open ground in November, or even earlier, is now very little practised, and as my note now more concerns the newer varieties, I shall be very brief as regards cultural details. I have in the past pointed out the value of sowing in pots in cold frames in November or December for early spring planting out, and this work is now so much more simple with the very fine additions we have had of late years. What a difference now from the Peas so much grown in the sixties. Then everyone mostly relied upon Sangster's No. 1, and a little later the American Wonder had a great run; but nowadays the early small white and green round Peas are not worth growing when classed with the introductions of the past few years. Here we have pods double and treble the size, and remarkable for their earliness, cropping, and good quality.

NEW VARIETIES.

Pioneer.—This is one of the newer Peas that everyone who has given it a trial thinks most highly of for its earliness, cropping and what may be termed its robust growth. As regards its height it is an ideal Pea, only 2 feet, and is certainly one of the very best of the new dwarf Peas yet introduced. Sent out in 1907, it has proved a most reliable Pea for early work and is most valuable in gardens where room is none too plentiful.

Hundred-fold, a variety only introduced last year, is likewise a remarkable cropper and only 2 feet in height. This I grew last year for the early crop, and it exceeded my expectations both as regards earliness and quality. It is by no means a small pod, each one on an average having no fewer than nine Peas; the pods are a very dark green, also the foliage.

Reading Wonder is a different type of Pea, as here is what one may term a distinct forcing variety. This does grandly in frames, as grown thus it rarely exceeds 12 inches in height. It is a wonderful advance on the old American Wonder Pea. The pods are large. This variety is one of the earliest Peas I have grown. By growing in cold frames at the start, pods may be gathered at the end of May.



A PYRAMID TREE OF APPLE CHELMSFORD WONDER. (*See page* 596.)

First of All, another of the newer forms, may be termed an improved May Queen. This last-named for years with us was a great favourite. It is of taller growth, but of fine quality, and a very early variety which will become a great favourite. It is even larger than that old variety Early Giant.

Langley Gem.—The standard early Pea for many years from the Chelsea firm was the well-known Chelsea Gem, a variety even now grown in great quantities, but now superseded by the one named above, and this is really a very fine break, as we have the good qualities of Chelsea Gem with more size. Gradus was the other parent, and it is doubtful if two better Peas than Chelsea Gem and Gradus had been raised when they were introduced. Langley Gem is more robust than Chelsea Gem, more branching, remarkably early and of splendid quality, an enormous cropper, dwarf and hardy.

Laxtonian.—Doubtless one of the earliest Peas grown, and, after many trials with other well-known kinds, Laxtonian is the leader in this respect. This was introduced by the same firm which gave us the excellent Gradus, and, like the last-named, the great merits of both these varieties are their splendid marrow qualities. The new variety claims Gradus as one of its parents. The pods are large and tightly packed with Peas of a large size. The plant is dwarf, rarely exceeding 2 feet, often less, and it can be sown early, as it is a vigorous grower.

Carter's Giant Lightning.—This new Pea must not be confounded with the older one under this name, without the prefix of Giant. The new form is remarkable for its size of pod, strong haulm and its earliness. It may be sown in advance of most kinds owing to its hardy nature, and, though not a wrinkled marrow, it is most valuable in a cold, wet or heavy soil, where marrows are not suitable. It is of medium height, 3 feet to 4 feet high, and a very heavy cropper.

Giant Express may be classed as almost identical with the Giant Lightning, but bears darker-coloured pods. Both are equally early.

Advancement.—A new Pea that is well named, very dwarf, but giving a pod almost the size of the older but well-known Daisy. The well-known Early Morn is still a great favourite with growers, who do not take kindly to new introductions, and it is still undoubtedly one of the very best Peas of late years. I have but briefly referred to forcing Peas, and for this work there is a fine selection, none better than Carter's Eight Weeks. This is a marrow Pea only 15 inches high, but the quality equal to a summer marrowfat; a splendid variety for pots, boxes or frames. Another of the same type and remarkably early is Carter's Forcing Pea, also a marrow, and an ideal Pea for glass culture, not more than 12 inches high and a very good cropper. There are others well worth including in this list, but the above I have grown and know their excellent qualities. The small growers named last may be termed the amateur's Peas, as no sticks are required, they take up little room, do not occupy the land very long, and give an excellent return. G. WYTHES.

PROTECTING AUTUMN-SOWN CARROTS.

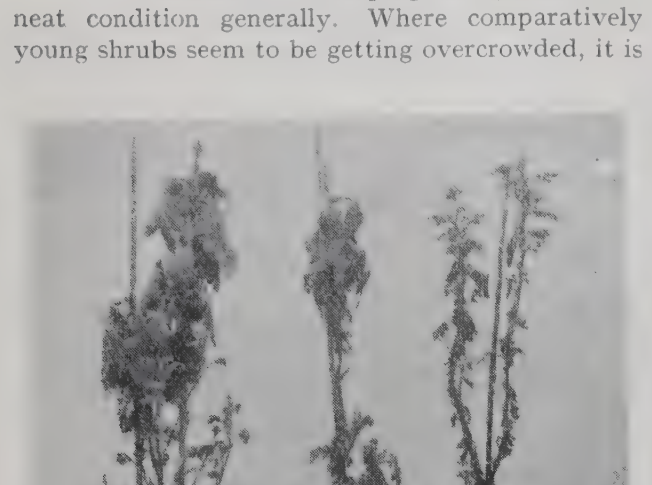
WHERE Carrots were sown during August for the purpose of securing a crop of tender young roots during the winter months, they will now be in good condition for using, and precautions must be taken to keep them free from injury by severe frosts. Though the Carrot is quite hardy, the crowns of the young roots are sometimes badly damaged, but this can be prevented by covering the bed during severe weather with Bracken or rough straw.

GARDENING FOR BEGINNERS.

HOW TO TREAT STOCK PLANTS OF CHRYSANTHEMUMS AFTER FLOWERING.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Although there is not a great deal of important work calling for attention in connection with the flower-beds at the present time, there is work to be done in the shrubberies and in keeping the garden in a neat condition generally. Where comparatively young shrubs seem to be getting overcrowded, it is



1.—THREE TYPICAL PLANTS AFTER FLOWERING.

advisable to lift and transplant some of them. By a judicious thinning-out of young shrubs, those left soon improve in appearance; they fill out rapidly, and entirely alter the general aspect of that part of the garden, and those specimens removed also fill up vacancies in other parts of the garden. It is quite the right thing to plant fairly thickly at first, that is, when new shrubberies are formed; but timely thinning-out is very rarely done, and the result is that, through overcrowding, the shrubs are partially spoiled. People now thinking of making new shrubberies ought to profit by these few hints. All main specimens—those that are intended to remain permanently—must first be planted after careful thought as to the best position for each one; then the work of planting others to fill up must be the rule. It is the surplus bush that I now recommend should be taken up and transplanted elsewhere before the permanent specimen is at all damaged. Where the soil is naturally poor, well-rotted manure must be added to it, and the opportunity to do this must not be lost. Permanent shrubs are rarely assisted by the application of stimulants; they should be fed by placing rich top-dressings of loam and rotted manure around the stems, so as to cover the portion of ground occupied by the roots. One good specimen shrub has a better effect than six poor ones.

Vegetable Garden.—The mulching of Asparagus-beds is a very important matter. Some cultivators put on a very thick coating of rather strawless manure, and where the soil is naturally light no great harm may result; but in clayey soils the Asparagus roots under such a covering must remain in a very cold medium, and some of them decay. The object of a mulch in winter-time is to keep the roots as warm as possible by simply preventing frost penetrating. Therefore, the cultivator should, now that frosts are likely to come frequently, put on a covering of nice littery manure about 4 inches deep. The material must be spread over the edges of the beds, so that the roots of the outside rows of plants receive due protection. No time must be lost in getting any stiff, clayey soil thrown up in ridges. No attempt must be made to break up the lumps at this season; leave them exposed to the weather. When the end of the winter comes, all such lumps of clayey matter will be well pulverised, and such soil so treated and judiciously manured will bear fine crops of vegetables afterwards. Onions stored in cool sheds must not be left there to get frozen. The stored bulbs must now be carefully examined.

Fruit Garden.—The work of pruning Gooseberries is generally deferred until the latter part of spring, when the buds are bursting freely. This late pruning is practised chiefly owing to the fact that birds eat the buds left and so ruin the prospects of a crop of berries. In some districts birds do destroy the buds; but where they are not so troublesome, or where adequate protection can be given, early or winter pruning is best, as the buds are stronger and the resultant crop of berries larger. Red and White Currants should be planted 6 feet apart in rows of equal distance. Gooseberries must be 1 foot closer. Black Currants ought to be planted 6 feet apart; Raspberries 1 foot asunder in rows, the latter being 5 feet apart.

Greenhouse and Frames.—There is really no time better than the present for the sponging and general cleaning of greenhouse plants. Both the leaves and the stems are harder, and will withstand insecticides better than in the summer-time. Care must be taken, however, to avoid injuring any buds present in the axils of leaves being sponged. In the warm greenhouse the Allamanda must be pruned back and the soil kept rather dry. Place named Coleuses and similar tender plants that are required for stock purposes in the warmest corner of the house. See that drip from the stages does not fall upon any roots or plants stored underneath. If a few strong stakes are driven into the ground about 6 inches from the sides of a frame and straw is packed in, many severe frosts can be thus kept out if suitable covering is put on the glass. Keep all plants in frames quite free from decaying leaves.

A. A.

CHRYSANTHEMUMS.

TREATMENT OF STOCK PLANTS AFTER FLOWERING.

MUCH valuable time is often lost through want of knowledge regarding the requirements of stock plants of Chrysanthemums. The period immediately subsequent to the closing of the flowering season and the commencement of another year's work is often covered by an interval of several weeks, and plants left practically unattended during this time must deteriorate and become unfit for producing cuttings. This want of attention is not confined to beginners alone; there are many growers who unduly neglect their plants at this season. Many of the better Chrysanthemums of the past have the more speedily gone out of cultivation because growers have failed to take proper measures to provide themselves with healthy stock for perpetuating them. It must be perfectly obvious that a healthy stock cannot be maintained when the old plants have been neglected during a most crucial period of their history. While the buds are developing and the flowers unfolding their florets it is the invariable practice in most gardens to feed the Chrysanthemum plants, using manure-water that varies in its character, and usually in doses much too strong. During this developing period the plants are often crowded in the glass structure, and in consequence of this system of arrangement the bases of the plants and the new growths that continue to evolve are kept at a considerable distance from light and air. Interest ceases for a time when the flowering season comes to an end, and during this important interval the soil in the pots gets dry and the newly developed basal shoots become limp and unsatisfactory. To add to the discomfiture of the old plants, they fall a ready prey to the attacks of green fly and other undesirable pests. Each plant must be nursed back to health again before cuttings can be taken. For the guidance and instruction of the inexperienced grower three typical plants are illustrated in Fig. 1. On the extreme left is a plant that has been placed in a pot much too large, and in which 3 inches, more or less, is left between the surface soil and the rim of the pot. Hardly sufficient space for watering has been allowed to the plant in the centre of the group. The plant on the extreme right was flowered in a pot rather too small in size to do the variety justice, and it also belongs to what may be termed a plant of a "shy" character, *i.e.*, it fails to produce basal shoots as freely as most other specimens; this fact should be borne in mind by growers when they proceed to cut down their plants after the flowering period has come to a close. Plants shy in developing growths should have a good length of the old stem retained, as it is quite possible that cuttings may have to be procured from off the stems when no basal shoots are available. Plants like those on the left of the illustration should be cut down to within 2 inches or 3 inches of their base. Weak and attenuated basal growths should be cut out and the ball of soil and roots of each plant be treated in somewhat drastic manner. By removing sodden or overdry soil from the roots

2.—PLANTS CUT DOWN TO ENSURE GOOD CUTTINGS.

and also soil that has become soured through the excessive use of manure-water, it is possible to give the old plants a new lease of life. These old plants are usually called stools after the stems are cut down. When reducing, the grower should have in mind two objects—first, if the old plants are to be repotted in 6-inch or smaller pots, the roots should be reduced sufficiently to accomplish this. If it is intended to plant the reduced old stools in boxes, or in beds of soil made up on the greenhouse bench

the shaking out of the soured soil from the roots may be even more drastic. The writer has known instances where soured soil has been washed from the roots and the old plants embedded in soil as suggested, with wonderfully good results.

Fig. 2 serves to illustrate the method of dealing with the old plants. Note how they have been cut

3.—OLD PLANTS REPOTTED TO ENCOURAGE NEW GROWTHS.

down and the ball of soil and roots reduced in each instance. A plant or two of each variety in a Chrysanthemum grower's collection when treated in this manner must appreciably diminish the space occupied by the old stools, and all the while the grower has the satisfaction of knowing that good, healthy stock is being developed. In this progressive work it is well that the beginner should be taken through each successive operation, and for this reason I have depicted in Fig. 3 the same series of plants repotted in 6-inch and 5-inch pots. A careful observation of the repotted plants cannot fail to impress the reader with their brighter possibilities, and there is little doubt that within a week or two such plants should bristle with numerous fresh growths that have evolved in consequence of the treatment accorded them.

Those who may find it rather inconvenient or troublesome to repot in the manner I have suggested may possibly prefer to make up a bed of soil on the greenhouse bench, or else fill a box of fair depth with soil and plunge or embed the old stools. Both serve the purpose very well. Drainage of some sort must be provided—old crocks placed in the bottom and covered with some of the rougher portions of the soil, following in turn with specially prepared compost, which should be levelled off. Embed the reduced old stools a few inches apart in rows, and to avoid confusion in names secure the label to the stump. Fig. 4 illustrates a number of plants treated in this manner. It is a good plan to put the compost for repotting through a coarse sieve, and in its preparation to use equal parts of loam and leaf-mould and a plentiful addition of clean road grit or coarse silver sand.

By following the lines laid down herein, healthy stock is brought into being for perpetuating the different kinds and varieties, and by these means many of the best examples of the "Autumn Queen" may be grown on without the constitution becoming impaired. D. B. CRANE.

HOW TO GROW CLEAN MUSHROOMS.

OF course, Mushrooms are peeled before they are cooked, and so any earth adhering or discoloration is removed with the fleshy skin. By unclean Mushrooms I do not mean simply those that are soiled or discoloured, but also those specimens that are eaten by woodlice, cockroaches or slugs.

When a Mushroom-bed is first made, it is advisable to cover it with sweet, clean straw or hay, preferably the former; but directly the Mushrooms commence to grow, the straw or hay covering should be removed and large sheets of brown paper put on in its place. This plan can only be adopted, however, where beds are made in cellars, in sheds quite enclosed and kept darkened, or in proper Mushroom-houses.

There is nearly sure to be some stain from straw or hay, although they, as covering materials, are kept quite dry. The Mushrooms grown beneath brown paper sheets are generally beautifully white and clean; and insect pests do not lodge there the same as they do under straw and hay. All cold draughts must be guarded against, so that it will be necessary to make good all ill-fitting doors and windows. SHAMROCK.

THE TOWN GARDEN.

WINTER FLOWERS.—Despite the fact that the frosts have done their worst for the great majority of the plants we know as "hardy perennials" or "hardy border flowers," there still remain to those who garden chiefly in the open air those true flowers of winter whose presence we value not so much because of great attractiveness of colour or aught else as that perfectly hardy nature of theirs which, taking but little heed of frost and cold, makes their coming possible when all else is indulging in a long winter's sleep. It is at such a time that we assess at its fullest worth the dainty twig or spray of the yellow-flowered Winter Jasmine (Jasminum nudiflorum), or, anon, the even more welcome spicily fragrant pieces of the Winter Sweet (Chimonanthus fragrans), whose almost colourless flowers are rendered precious because of a fragrance which is its greatest charm. These twain are of shrubby growth and valuable alike for planting in warm situations, where in winter-time their flowering will be not merely assured, but, save in the most severe weather, continuous. It is not, of course, suggested that all the plants should occupy the positions named, but that a proportion be planted in favoured spots for the reason given.

THE WINTER SWEET is simply delightful when planted against a low wall beneath a sitting-room window, so that in its season the spicy fragrance can be wafted in and enjoyed at will. In Southern gardens and away from the home of smoke and fog the plant is happy as a bush, but for the moment our gardens are not there. Valuable, too, in its way is the Winter Heliotrope, Petasites or Tussilago fragrans, a plant we should not in the ordinary way tolerate in gardens. Yet we prize this plant of coarse leaf and weedy root-growth because of its winter flowering and its fragrance. In admitting it into the garden afford it a corner near the shrubbery border, where it will make for itself a home and arrest attention because of a sweetness which cannot be ignored. For those who have a cool greenhouse, or even a frame, the plant is well suited, and just now its flowering crowns may be lifted and potted for transference to the greenhouse or sitting-room later on.

HELLEBORUS NIGER MAXIMUS.—At the moment of writing this sturdy winter flower is giving freely of its ruddy-tinted blossoms, whose hooded form in the early stages of development, as well as the warmth of the external colouring, give it character as well as charm. The true variety—alas! not always supplied when asked for—is a fine plant for November and early December flowering, and certainly one of the most vigorous of its race, particularly good, too, in loamy soils of a somewhat holding nature if given a place free from cold north and easterly winds. Such shelter is best supplied not by walls or buildings, but by shrub groups or belts of the same.

PROTECTING CHRISTMAS ROSES.—The Bath or major variety of Helleborus niger is the true Christmas Rose, and as such the one above all others whose flowering is practically a certainty at the festive period. Just now the flower-buds are pushing away fast, and those who desire to retain them pure and free from stain should afford overhead protection by means of hand-lights, cloches or the like. In some gardens the handsome, nearly foot-high leaf-tufts form admirable protection, and little else is needed; but in the majority of town gardens this is certainly not the case. Hence it is necessary to afford protection as suggested, for even a midwinter flower arouses no enthusiasm if weather-beaten or soot-begrimed.

THE LURKING SLUG.—Prior to covering these Christmas Roses with hand-lights the crowns should be cleared of leaves that may have blown thither, and, indeed, anything that will permit of the smaller of the slug tribe secreting therein. Slugs generally are great destroyers of the flower-buds of these plants, and unless attention be early directed thereto and the pest hunted to the death, a large number of flowers will be ruined. A band of soot formed around the plants or soot-water syringed into the crowns will make their place of abode highly disagreeable, which, from the gardener's point of view, is much to be desired.

E. H. JENKINS.

THE ROYAL HORTICULTURAL SOCIETY'S NEW CLASSIFICATION OF DAFFODILS.

RATHER more than two years ago the Royal Horticultural Society brought out a "Classified List of Daffodil Names, 1908," for garden and show purposes, printed in a convenient form. After it became known it was subjected to a certain amount of criticism in the gardening Press, and a few defects—not for the most part of a very serious character—were pointed out. This scheme has been adopted at Birmingham, and I believe at another local show, and has met with a fair measure of success. Exhibitors have certainly found it a great comfort to find put down in black and white the exact class in which a particular variety is to be staged. Now, a classification of this sort, being a mere collection of garden hybrids, is of no value for botanica

4.—THE STOOLS MAY BE PLANTED IN BOXES.

purposes, and is of little use in the garden, and it is on its value for show purposes that it must ultimately stand or fall. The prudent course would have been to have watched the classes at the shows at which the classification was used, and to have gradually introduced modifications as experience suggested. In this way a really practical classification for show purposes might have

evolved. Unfortunately, a different course has been pursued. From the notice in THE GARDEN of November 26, 1910, it appears that the Royal Horticultural Society is issuing a brand new classification, which, to judge from the catalogue of Messrs. Barr, who set it out, seems in some respects quite unsuited for show purposes.

The new classification makes no fewer than eleven classes: (1) Trumpets; (2) incomparabilis; (3) Barri, including Burbidgei; (4) Leedsii; (5) triandrus hybrids; (6) cyclamineus hybrids; (7) Jonquilla hybrids; (8) Tazetta and its hybrids; (9) Poeticus; (10) doubles; and (11) various. To the first three of these divisions little exception can be taken, though it may be a question of taste whether the Burbidgei and most of the Engleheartii are best shown in the Barri section. The separation of the fourth group, Leedsii, I am inclined to welcome, for these beautiful fairy forms never look so well as when grouped together, a fact Miss Linton has discovered at Huntingdon, where a taste for Leedsii varieties seems specially to flourish; but I somewhat regret the definition adopted, viz., "white perianth and cup white cream or citron." This relegates the yellow, red-stained or red cups to the incomparabilis or Barri sections, and requires the removal from the Leedsii class of such well-known Leedsiis as Peach and Salmonetta, and perhaps Duchess of Westminster, where the cup when first opened is quite yellow.

Divisions 5, 6 and 7, however, for hybrids of triandrus, cyclamineus and Jonquilla, seem to be quite indefensible at present as separate divisions for show purposes. To begin with, it is somewhat absurd to find these varieties, triandrus, cyclamineus and Jonquilla, relegated to the "various" section, while their hybrids are to form separate divisions. Next, let us see what we have left, and for this purpose I will take Messrs. Barr's list as being one of the most representative catalogues published by a single tradesman. For Division 5, after the removal of triandrus itself and, I presume, its varieties calathinus and concolor, we have Queen of Spain (now very generally grown, though not so much as it deserves), three varieties ranging in price from 7s. 6d. to 17s. 6d. and seven priced from one to seven guineas, while seven others are mentioned as not yet in commerce. It may be premised with some certainty that none of these is sufficiently largely grown to make a respectable class at a show.

Division 6, for cyclamineus hybrids, is rather amusing, for here we find no single variety mentioned by Messrs. Barr, and perhaps they explain this by the statement that the progeny of cyclamineus are not generally long-lived.

Division 7 is little better, for besides Buttercup, which is of the prohibitive price of ten guineas, we have only the four varieties of odorus (Campanella, heminalis, rugulosus and r. maximus), which, beautiful and distinct though they may be, are too limited and too much alike to form a good show class.

In Division 8, Tazetta and its hybrids, exception must be taken to the inclusion of the Tridymus varieties, such as S. A. de Graaff, which are quite out of character with the bunch-flowered section.

Divisions 9 and 10, Poeticus and doubles, are as they should be; but Division 11 would have been better if it had been retained for miniature Daffodils, such as minimus and the Hoop Petticoats. A new class for miniature Daffodils would have been delightful, and if well filled would, I am sure, prove most attractive. At present they are almost excluded from the shows, being elbowed out by their more robust sisters.

I ought to add that the first three of these divisions are again subdivided according to colour, an arrangement that is clearly convenient.

One feels some curiosity to know with what object the divisions to which I have taken exception have been introduced into the new scheme. One may surmise that it is an attempt by hybridisers to forecast the probable development of the flower in the future. If so, it is to be deplored. Legislation for the future is generally useless, if not actually harmful, and it is to be feared that this scheme will not give us what we want, viz., a scheme adapted for present-day shows.

It remains to be seen what course the large Daffodil societies, such as the Midland, will take in the matter. I could hope that they might retain the scheme on which they are now working, incorporating, perhaps, some useful amendments suggested by the new scheme and issuing from time to time a classified list revised and readjusted to their requirements; but the indications are that they rather fear to undertake so bold a policy, and look for a lead elsewhere. Should this be so, it seems to emphasise the need for a National Daffodil Society, which, with a single eye to the interests of its members, might do for the Daffodil something of what the National Rose Society has done for the Rose.

Potters Bar. H. R. DARLINGTON.

NEW PLANTS.

CYPRIPEDIUM MINOTAUR.—A handsome and large-flowering hybrid between C. Euryades and C. Minnie. This variety has a very broad dorsal sepal, well marked with chocolate blotches on an almost white background. The lip and petals are of a pleasing tone of brown, tipped with green. It is interesting to note that both of the parents of this new form are hybrids from C. Leeanum, which in its turn is descended from C. insigne and C. spicerianum. The variety under notice was raised from seed sown in January, 1907, and pollination took place in December, 1905. Thus a clear five years have elapsed since this cross was first made. It was exhibited by Lieutenant-Colonel Sir George Holford, K.C.V.O., Westonbirt, Tetbury, Gloucestershire, and was awarded a first-class certificate.

Vanda cærulea Sanderæ.—This is a new variety of the ever-popular blue-flowering Vanda. The new-comer, however, is not blue, but is of a soft rosy pink, quite distinct from the type and very beautiful.

Cypripedium Charlesworthii variety Temeraire.—The aim of the specialist is to produce Cypripediums with flowers as large and bold as possible, and in this new variety we have one that is remarkable for its size. It has a very broad dorsal sepal of a pinkish hue, and beautifully veined. The new variety resembles the type Charlesworthii very much enlarged. The two last-named novelties were shown by Messrs. Sander and Sons, St. Albans, each receiving a first-class certificate.

Each of the following received an award of merit:

Sophro-Lælio-Cattleya Althea.—A charming form, moderate in size, and bearing flowers of a soft tone of orange pink. The petals are well developed, and the frilled lip is deep crimson, with gold markings at the base. Parentage, C. percivaliana × Sophro-Lælia Gratrixiæ. Shown by H. S. Goodson, Esq., Fairlawn, Putney.

Cattleya Lucida.—This is a very free-flowering hybrid between C. bowringiana and C. schilleriana. It may be described as a dwarf form of the first or seed parent. The inflorescences are inclined to be bunched. The colour is rosy purple. Shown by Samuel Larkin, Esq., Haslemere.

Cypripedium Iolanthe.—A splendid new variety that attracted a good deal of attention from Orchid specialists. In many respects it resembles the novelty Minotaur previously described, but the flower is smaller and not quite so good in form and substance. Parentage, C. insigne Sanderæ × C. Euryades. It possesses a very large dorsal sepal, well marked with chocolate spots, with a broad white margin and a greenish tint at the base. The wings and lip are of a reddish brown. It was shown by Messrs. James Veitch and Sons, Chelsea.

Chrysanthemum D. B. Crane (Japanese).—The predominating colour is pale bronze, with a slight infusion of yellow in the drooping, strap-like florets. From Mr. Silsbury, Shanklin, Isle of Wight.

Chrysanthemum Ernest G. Mocatta.—A grand exhibition Japanese of deep golden yellow colour and fine finish. A sport from Edith Jameson, and possessed of all the good attributes of that fine variety. Exhibited by Mr. T. Stevenson, Woburn Place Gardens, Addlestone.

Chrysanthemum Strawberry (Single).—The colour is dark reddish bronze, and effective. We have no sympathy with so inappropriate a name. From Mr. Frank Lilley, Guernsey.

Chrysanthemums William Turner, Sandown Radiance and *Crimson Jewel* came from Messrs. William Wells and Co., Limited, Merstham, and are described below.

Chrysanthemum Ethel Thorp.—Self pink; a finely built Japanese incurved variety. The colour lacks brightness, however. From Mr. Thorp, Worthing.

Chrysanthemum Mrs. Foot (Single).—The colour is amaranth red; the flower-heads, which are of good form, are produced freely in sprays.

Chrysanthemum Peter Plant (Single).—Clear bright pink, of excellent colour and form. These were exhibited by Mr. Lawrence, Shoreham, Kent.

Chrysanthemum Brightness (Single).—A well-named variety of good size. Colour, orange-scarlet, the disc encompassed by a circle of gold. Exhibited by Messrs. Williams and Sons, Cardiff.

All of the foregoing were shown before the Royal Horticultural Society on November 22, when the awards were made.

The floral committee of the National Chrysanthemum Society met at Essex Hall, Strand, W.C., on the 21st ult., Mr. D. B. Crane in the chair. There were numerous novelties of good quality set up on this occasion, and the following varieties each received a first-class certificate:

Sandown Radiance.—A large and attractive single of good form. Colour, crimson-scarlet, with yellow disc.

William Turner.—This is a large, massive-looking, pure white Japanese incurved of good form and deep build, having broad petals.

Colonel E. C. Converse.—A promising Japanese bloom of exhibition quality, having broad petals, incurving at the ends. Colour, rosy red inside, with nankeen reverse. These three came from Messrs. W. Wells and Co., Merstham, Surrey.

Thorp's Beauty.—An immense Japanese bloom, less refined than we like to see in exhibition Chrysanthemums. Colour, rosy red, with nankeen reverse. Broad, flat petals.

Mrs. W. Powell.—As a type of Japanese market Chrysanthemum this is almost ideal. The blooms are large and full, prettily reflexing, and the petals are of medium width. Colour, yellow. Both came from Mr. H. W. Thorp, Durrington, Worthing.

Mrs. W. Higgs.—A large disbudded single, with several rows of petals that should pack and travel well for market use. Colour, pleasing pale rosy lilac.

Ivy Gay.—For market purposes this new sort should be in demand. The flowers are of Japanese incurved form, of medium size, and the colour is silvery pink. Both came from Mr. Philip Ladds, Swanley.

Queen Chandler.—This is a beautiful exhibition Japanese reflexed bloom of great refinement and of charming drooping form, having very long petals. Colour, primrose.

Fred Green.—One of the most attractive Japanese flowers of its class. Petals long and prettily recurving, and forming a large bloom of splendid quality. Colour, rich amaranth, with silvery reverse. Both came from Mr. Martin Silsbury, Shanklin, Isle of Wight.

Pink Delight.—A very pretty medium-sized single of good form; very free-flowering. Colour, bright pink, with neat white zone round a yellow disc. From Mr. L. Lawrence, Shoreham, Sevenoaks.

Crimson Jewel.—This variety was certificated as a semi-double decorative Chrysanthemum. The bloom has several rows of petals, debarring the variety from being classified as a true single. It is highly decorative. Colour, chestnut, with golden tips. From Messrs. W. Wells and Co.

Several varieties were commended.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Protecting a large Palm during winter (*Lady Lakin*).—The best way to protect your Palm would be to erect four pieces of quartering wide enough apart to surround the leaves, with bands of battening round about 1½ feet apart. Wrap the trunk with hay-bands and leave the foliage loose. On the approach of severe frost place two or three thicknesses of mats round and over the posts, or, better still, two mats with hay between round the sides, and two mats and a piece of roofing felt over the top; or, as an alternative, two mats and a light boarded top. After frost has gone remove the covering from the sides, and replace it at night when frost appears likely to occur. The top may be left on until danger of frost is over.

Bulblets of Lilium tigrinum (*G. W.*).—If you possess but a small number, the better plan would be to prepare some boxes by nearly filling them with sandy soil, and, having placed the bulbils 1 inch or so apart, cover with about 1 inch deep of similar soil. The boxes or pans should be first well drained; the soil should be moderately light and made rather firm. Prior to placing the bulbils in position, a sowing of sand might be given for them to rest upon. If you possess a considerable quantity, a simpler plan would be to make up a soil mixture in a frame and plant as above directed. These bulbils always make the most rapid progress if placed in the greenhouse for a year, during the whole of which time the plants continue to develop leaf-growth and bulb. In the second year the stem-growth appears, when replanting with more room will be necessary. The planting or transplanting should in all cases be done during the autumn season.

Seedling perennials during winter (*J. W. B.*). They will make better plants and give an earlier display if they can receive the protection of a cold frame during winter, giving them plenty of air at all times, excepting in hard, frosty weather and when it is very wet.

Creeper for a west wall (*Puzzled*).—The quickest way to cover your wall is to plant it with Ampelopsis Veitchii. This, however, is not an evergreen, and if you require an evergreen you had better plant Ivy or Cratægus Pyracantha. The latter is the more showy, for it flowers well in May and the flowers are followed by fruits, which are orange scarlet in colour when ripe in autumn.

Diseased Violets (*C. H. R.*).—The Violets are attacked by the fungus Ovularia lactea (also called Ramularia lactea). You will find that the affected spots drop out, and so the soil itself becomes a source of infection of the plants. It would be best to remove all the affected leaves and destroy them by fire. Spray the plants, using a very fine, mist-like spray, not syringe them, with potassium sulphide, made by dissolving 1oz. of the sulphide in three gallons of water.

Hardy plants (*Betty*).—The plants you name, Veronica virginica, Sidalcea Listeri Rosy Gem and the Salvia, are all true perennials, the two former quite hardy, the latter tender, requiring greenhouse protection in winter-time. The hardy perennials would be readily obtained from any of the hardy plant specialists throughout the country, and the Salvia from the majority of nurserymen who grow such plants, Messrs. James Veitch and Sons, Limited, Chelsea, for example, or Messrs. Cannell, Swanley.

Lily of the Valley under Weeping Willow (*G. Badder*).—This tree is deep rather than superficial in its rooting, and as it is not a great robber of the soil it is not unlikely, if you can command a good depth of the soil, that Lily of the Valley might prove a success. This plant delights in rich soils, shade and abundant moisture, and where these are forthcoming it may be grown almost anywhere with success. October is the best month for transplanting, and if the plants are from an old bed only, the strongest of the single crowns—*not clumps*—should be bedded out. To secure these you would have to break up the clumps or wash them out, so that division and selection would be rendered more easy.

Reversion in variegated Ivy (*A. J. B.*).—It is not unusual for branches of variegated Ivies to produce green leaves, and it is simply a reversion to the type. All variegated Ivies are abnormally developed branches of green-leaved kinds, which are commonly called "sports." These pieces are selected and propagated. Some of them keep fairly true for many years, while others are continually reverting. As a rule, those with the variegation confined to the margins of the leaves, with green centres, keep truer than the kinds which have variegated centres and green margins. It is improbable that the shoot you describe will produce variegated leaves again, and the usual practice is to remove such green-leaved shoots in order to enable the plant to retain its variegated character.

Soil for rockery (*S. D. F.*).—Had you mixed some good turfy loam and leaf-soil with the road scrapings, you would have formed a very suitable compost for many rockwork plants, but the road scrapings alone would only do for plants not suited to the position. If you could add loam to about one-third of the bulk, this would do quite well. Plants preferring shade are Primula rosea and P. Sieboldii in variety, Saxifraga Guildford Seedling, S. Wallacei, S. Arkwrightii, S. Clibranii, S. granulata fl.-pl., Ramondias, Hepaticas in red, white and blue shades, Snowdrops, Scillas, Veronica rupestris, V. repens, Armerias, Viola cornuta purpurea, Phlox amœna, P. Nelsonii, P. Vivid and others. In the free soil mixture we have indicated quite a large number of plants would succeed, as Aubrietias, Megaseas, Campanula muralis, C. pumila, C. p. alba and the like.

TREES AND SHRUBS.

Shrubs for a sandy river bank (*C. L. C.*). You will find the following subjects suitable for the position you mention on your sandy river bank: Hippophae rhamnoides (the Sea Buckthorn), Cornus alba (with showy red bark), Salix alba var. vitellina (yellow and red barked varieties) Myrica Gale, Golden-leaved Elder, Diervilla hybrida, Philadelphus coronarius, Arundinaria japonica, A. Kumasasa (or Bambusa palmata, as it is often called), Tamarix gallica, T. pentandra, Salix babylonica, Rosa rugosa, Berberis Aquifolium, B. stenophylla, Rubus ulmifolius flore-pleno, Taxodium distichum and any of the Alders.

Trees and shrubs for planting on an island (*J. F. G.*).—Without knowing more of your local conditions it is difficult to say which are the most suitable trees and shrubs for planting on your island at Dunecht. For instance, if the island is in a sheltered position, subjects would grow which would be a failure in a very exposed place; then, if the ground is very wet, the range of plants is again limited. With the supposition that the island is moderately well situated with regard to shelter, and that the ground is in a suitable condition for planting, we should advise the following subjects: About the margins and within reach of the water, red and yellow stemmed forms of Salix vitellina, the white-stemmed S. daphnoides, and the red-stemmed Cornus alba and its varieties, with trees of Salix babylonica, S. alba and Alnus glutinosa var. laciniata. A little further from the water conspicuous groups might be formed of the golden-leaved Elder, purple-leaved Nut and Rosa rugosa, while the following trees and shrubs may also be expected to thrive; Pinus Laricio, Thuya gigantea, Cupressus lawsoniana, Laburnum alpinum, Double Scarlet Thorn, Berberis vulgaris, B. Aquifolium, Viburnum Opulus, V. Lantana, Cytisus scoparius and varieties sulphureus and andreanus, Spiræa arguta, S. salicifolia, S. Menziesii, Potentilla fruticosa, Daphne Mezereum, Tamarix gallica, Euonymus europæus, double-flowered Gorse, Erica cinerea and varieties, E. carnea, common Holly, Lilac and Hypericum calycinum.

Almond and other trees (*Young Gardener*).—The best Almond for you to plant is the common Almond (Prunus Amygdalus), and it may be planted at any time between the present date and the middle of March. The most suitable soil is that of a loamy character, light rather than heavy. East, west or south aspects are all suitable, and there is really little to choose between them. We are interested to hear of your success with the Myrtle and Camellia out of doors. In Anglesey, however, you have a very equable climate, and will probably be able to grow many things out of doors which are cultivated under glass in most parts of the country. You will find it very interesting to experiment with semi-tender subjects.

Injury to an Araucaria (*Mrs. Wigram*).—It is impossible to account for the crack in the stem of your Araucaria without seeing the tree. Similar cracks with frothy matter running from them have been noted on several occasions, and they have usually been found to be associated with a fungoid disease within the bark or wood. Those trees which are badly affected usually die sooner or later. In the case of your tree it may be merely an ordinary crack, and we should advise you to scrape the place well, paint it over with a carbolic solution, and then give it a coat of tar. This is all that you can do to it in either case, for if the wound arises from a fungoid disease it is in such a position that you can do nothing to check it.

FRUIT GARDEN.

Culinary Apples for exhibition (*B. F.*).—Baumann's Red Reinette is good. The fruits of this should be well thinned. Blenheim Orange should be included. This can be shown as dessert or kitchen. Gascoyne's Scarlet may be shown as dessert or kitchen. It is about the handsomest of all Apples when well coloured. King of Tompkin's County is excellent. Lord Derby is also excellent, but is not dessert. Newton Wonder is indispensable. Peasgood's Nonsuch is fine, but is rather shy-bearing. You obtain the finest fruit from bush trees growing on the Paradise stock.

To prune Peach trees (*Hal*).—The best, and indeed the proper time for cutting back the wood of Peach and Nectarine trees is as soon as the fruit has been gathered, for the reason that the thinning out of the wood at this time admits of more light and air among the remaining leaves and branches. This will greatly help the better ripening of the wood, which condition is an absolute necessity for the production of good crops the following year. If the thinning out of the wood is carefully and properly carried out at this time, there will virtually be no winter pruning to do. In your case no time should now be lost in cutting out all barren wood, such as that which has borne fruit. At the same time, you must be careful to leave plenty of young shoots of this year's growth in every part of your trees, as it is on these shoots that next year's crop will be produced.

Peaches under glass (*J. W. S.*).—This is too large a subject to answer within the compass of the space allowed; but we may say that

the soil recommended for the growth of the Apricot will answer perfectly for the Peach. As regards the number of 4-inch hot-water pipes required for heating such a house, all depends on the time you wish your fruit to be ripe. If you wish to have fruit ripe in May, you must have command of good heat, say, four flow pipes and two returns; if a month later, half the number of pipes will be enough; and if a month later still, a single flow and return pipe will suffice. As long as the trees are free from the attacks of fungoid or insect pests, no wash of any kind is necessary. As an evergreen and permanent blind you cannot have anything better than the Irish Ivy.

Insects on bark of Peach trees (*Colonel F. W. B.*).—The insects sent are examples of the Peach scale (Lecanium persicæ). It is a close ally of the mussel scale, and may be cured by sponging with a solution of soft soap, using about 2oz. of soft soap to a pail of water.

Bark split on Pear trees (*W. W. L.*).—Leave the separated bark on, and no doubt the wound will heal along its edges and eventually cover the surface exposed. The width of the split seems excessive. We suppose there is no doubt that it is only a split. Sometimes the bark splits when the wood growth is in excess of the growth of the bark, or when the bark has become hard, as after growth in poor soil.

American blight on Apple trees (*S. Q. H.*).—There is no better remedy than that which is known as the Woburn Wash. It should be applied with a garden engine or syringe any time between November and February. Every part of the tree must be well saturated. This wash thoroughly cleanses the tree from all insects and lichen growth. It is made as follows: Soft soap, ½lb.; paraffin, 5 pints; caustic soda, 2lb.; water, 9½ gallons. Dissolve the soap in warm water, churn the paraffin into it, and then shake in the caustic soda.

Stakes to trees (*Derby*).—It is difficult to say whether half-standard Apple trees planted on a slope exposed to rough west winds in 1906 still require the support of stakes. You say they have all done well. This being so, we think it would be safe to let them go without stakes as soon as those by which they are supported now are decayed. It is contended by many good growers that the swaying about of a young fruit tree by the wind to a moderate extent helps the roots to take a better hold of the soil. It may be that some may still require the support of stakes and others not, all depending on the robustness of their respective growth and strength.

Muscat Grapes not setting (*F. T. P.*).—It is strange that the bunch on the first spur of the Vine should refuse to set every year when the other bunches set freely and all receive the same treatment. Can it be that front air is admitted while the Grapes are in bloom, or does steam arise from syringing? as the lower bunches are usually over the hot-water pipes, and as a rule these set the best when the atmosphere is kept dry, the extra heat favouring perfect setting. We can only suggest these causes, and would further suggest that the pollen of some other Grape which may be in bloom at the time may be used instead of the Muscat next year. Also, do not have any front air on the vinery while the Grapes are in bloom (ventilate from the top only), and keep the air dry and warm.

THE GREENHOUSE.

Treatment of Agapanthuses (*M. E. A.*) You give no idea of the size of your Agapanthuses, whether they are grown in pots or tubs or planted out. No mention is made either of the treatment given them. The compost most suitable for Agapanthuses is a good turfy loam, lightened, if necessary, by a little leaf-mould, well-decayed manure and sand. Repotting, when needed, should be done in the spring before the plants start into growth. They should then be assigned a good, light position in the greenhouse, under which conditions they will make good, sturdy growth. Then, when all danger from frosts is over, say, the first week in June, the plants can be stood out of doors in an open, sunny spot, where they will throw up their flower-spikes. It is quite correct that large, established plants flower more freely when pot-bound than if they are frequently disturbed at the roots. These are, in the case of the Agapanthus, of a thick, fleshy nature and very numerous, so that after being in a pot or tub for two or three years there is often little more than a densely packed mass of roots. When this is the case an occasional dose of liquid manure during the growing season will be beneficial. So treated, plants will stand for years in the same pot or tub and flower annually. During the winter the plants will need but little water. At that season they must be kept quite safe from frost.

Pelargoniums for examination (*E. L. H.*).—We think the cold nights are to blame for the damage to the Pelargoniums. We can find no fungus or insect to account for it, and think that when growth occurs in more congenial circumstances the plants will not show further damage. The great amount of moisture, together with cold nights, has caused Dahlias and Salvias to suffer in a similar way.

Potting large Palms (*J. M.*).—Unless your Palms are very badly in need of potting, we advise you to wait until next March. Most Palms, including all those grown for general decorative purposes, need a compost mainly consisting of fibrous loam with a little sand, lightened, if necessary, with the addition of a small amount of leaf-mould. Palms of all kinds resent very much being unduly disturbed at the roots, and if the bottom portions of the roots are cut off it will most likely kill them. Owing to this, many use tubs instead of pots, as they can be made deeper than pots usually are.

Bignonia not flowering (*G. P.*).—The name of the enclosed specimen is Bignonia Cherere. In order to flower it successfully it needs a warm greenhouse temperature, that is to say, a structure in which the thermometer during the winter ranges from 50° to 60° or thereabouts. If planted out in a prepared border it does not need unlimited root room, otherwise strong growth rather than flowers will be the result. Plenty of light, a free circulation of air, especially during the summer, and a good amount of sunshine all tend towards the production of blossoms. Once the plant has reached a flowering condition, it will, with reasonable treatment, bloom year after year.

ROSE GARDEN.

Replanting Roses (*Rosa*).—We think you could grow the climbers on the north fence, but instead of having all their growths on the fence, bend out one or two of each tree almost horizontally and about 1 foot from the ground. You will then get blooms from these growths next year. Some canes can be inserted in the ground to support the growths. Plant the Roses in the following order, commencing near the shed: Mme. Berard, Reine M. Henriette, Reve d'Or, M. Desir, Mme. Jules Gravereaux, Gloire de Dijon, Frau Karl Druschki and W. A. Richardson. The standards would look best dispersed all over the bed at about equal distances apart. Plant Grüss an Teplitz, Homer and Hugh Dickson towards the centre of the others, according to taste. The bushes can also be distributed all over the bed, putting the following towards the fence, as they are the strongest growers: Prince C. de Rohan, Gustave Regis, Mme. A. Chatenay, Grace Darling and Frau Karl Druschki. The following should be planted towards the front edge: Mme. Cusin, Antoine Rivoire and Richmond. Do not plant any Roses in the very shady position. The Cotoneaster would be much the better plant for this. Before planting any tree you could set up tall sticks for standards and shorter ones for bushes. You would then have them at regular distances apart.

Preparing bed for Roses (*C. H. S.*).—You should have the soil dug two spades deep, that is to say, about 2 feet in depth. Do not allow the bottom layer of soil to be brought up to the top, but you can improve it by mixing with it some basic slag at the rate of 6oz. or 8oz. per square yard, and also some well-decayed manure. It is not wise to mulch the soil during the winter. In preparing new beds manure should most certainly be added, but do not allow it to come immediately near the roots when planting. It is a good plan to give each bush a shovelful or two of good loam with a little rotted manure, well mixed; in fact, such compost as one would use in the potting-shed. In planting be careful to make the soil firm about the roots.

MISCELLANEOUS.

Aspidistras turning brown (*E. J. T.*).—There are several reasons that may account for your Aspidistras doing badly, and as you say nothing about the treatment they have received or where they are kept, it is, of course, impossible for us to state definitely the cause of failure. In the first place, the soil may have been kept too wet, a frequent cause of trouble being the allowing of water to stand in the saucers or other receptacles in which the plants are placed. Again, they may have been kept too dry, or too much exposed to the sun during the hot weather in early autumn, or in too dark a spot. At all events, it is most probable that the roots are in a bad state, in which case the only thing you can do is to repot the plants. The present is the very worst time of the year for doing this, and we should advise you to allow them to remain undisturbed till next April, when they may be repotted. Before repotting, as much of the old soil as possible shou be removed from the ball of earth, and if any roots a decayed they must be cut away. Should you wish divide any of the plants, it will then be a good time to so. A suitable soil for Aspidistras is two-thirds loam one-third peat or leaf-mould and a liberal sprinkling silver sand.

The burning of clay soils (*M. Prior, D.D.*).—T only way in which soil can be burnt is by lighting a large he of wood or coal, and placing the turves of soil on the all over the heap, leaving them there until the fire permeated through the whole turf and has sterilised of all living insects and seeds. It should not be left the fire a moment longer than is necessary to accompl this purpose. You will find that the soil after this ord will crumble down and be far easier to deal with th before. Charcoal-burners, if there are any in your distr would carry out the work satisfactorily and cheaply

Plants for Switzerland (*Villars*).—This is matter requiring experience on the spot, or, if this is n available, a series of experiments should be conduc with that end in view. Cannot you give us some defin data as to the reading of the thermometer at the altitu you name, the extent of the winter season and the amou of snow experienced? Many races of hardy plants wo doubtless do quite well, and with the snow covering ma Roses that succumb in England to frost would proba be quite safe. Upon hearing again from you we will our best to supply you with a list of suitable things.

Plants for garden near the sea (*Arthur Pullma*) The following plants ought to thrive in your garden n the sea: For a wind-break, Pinus insignis, Austrian P and Cupressus macrocarpa; shrubs and flowering tre Euonymus japonicus, Tamarix in variety, Sea Buckth (Hippophae rhamnoides), Olearia Haastii, Veronica speci and varieties, V. Traversii, Fuchsia Riccartonii, Escallo macrantha, Laburnums, double-flowered Thorns, Forsyt suspensa, Viburnum Lantana, double-flowered Gor Hydrangea Hortensia and the various Brooms; h baceous plants, such as Statice, any species, Armeria, a species, Saxifrages, Snapdragons, Wallflowers, Cran orientale, Lavateras, Hollyhocks and many of the commo border flowers. It is difficult to advise you about edi plants, but the majority of vegetables ought to thrive w you, providing you plant a belt of trees to give your gar a certain amount of shelter. With regard to fruits, y cannot do better than pay visits to a few gardens in vicinity and observe which particular kinds are giving most satisfactory results. It is very difficult to g satisfactory information in a case like yours, as we do know the exact conditions under which the garden placed. We would advise that you should consult local expert before going to any serious expense

SOCIETIES.

SANDHURST, YATELEY AND DISTRICT GARDENERS' ASSOCIATION.

AT the meeting held on Tuesday, November 15, the subj for discussion was "Rock Plants." This was introduc by Mr. F. Crosby, The Gardens, Crosby Hill, Camberl in a most lucid manner. The lecturer spoke of the inter now being taken in this class of plants. He said that to d with the whole host of rock plants would take up too mu time, so he would confine himself to those that he h found would do well in the district, and which would ma an attractive and beautiful collection and were all fairly e to grow. Some of the kinds mentioned were Aubrieti Dianthus, Campanulas, Androsaces, Gentians, Phlox Ramondias, Onosmas, Veronicas and Saxifragas. T most suitable places to plant the same were described. most interesting discussion followed, in which several the members took part. A hearty vote of thanks v accorded Mr. Crosby for so excellent a paper. Mr. Goddard, The Gardens, Ambarrow, Sandhurst, staged plants and cut flowers of seedling single Chrysanthemu which were splendidly grown.

WARGRAVE AND DISTRICT GARDENERS' SHOW.

THE ninth annual show of flowers, fruit and vegetabl organised by the Wargrave and District Gardeners' Assoc tion in aid of the gardening charities, took place on Thu day, November 17, in the Woodclyffe Hall, Wargra In spite of the severe frost there was a magnificent disp of Chrysanthemums, Begonia Gloire de Lorraine, Orchi Palms, Ferns, &c., besides some excellent fruit and ve tables. There was a good attendance of visitors throughc the day, instrumental and vocal music being provided enliven the proceedings. The committee are to be c gratulated on the success of their efforts, members of t association and their employers entering heartily into t undertaking. The net proceeds will be given to the Ro Gardeners' Benevolent Institution this year. This stitution and the Gardeners' Orphan Fund have benefit to the amount of over £65 from the shows held by t society, thus showing what can be done when all me bers put their shoulders to the wheel. The follow ladies and gentlemen kindly exhibited, the names parentheses being the head-gardeners in each cas C. S. Henry, Esq., M.P. (Mr. Doe); S. Davis, Esq. (M Tunbridge); Mrs. Groves (Mr. Mackenzie); the R H. M. Wells (Mr. G. Howe); Godfrey Boulton, Esq. (M T. Butcher); C. J. D. Eveleigh, Esq. (Mr. J. Blencowe E. C. Hannen, Esq. (Mr. Attlesey); G. T. S. Gill, E (Mr. F. Gray); F. W. Nicholson, Esq. (Mr. J. Shipley the Rev. A. H. Austen Leigh (Mr. B. Robbins); Capta Coleridge (Mr. W. H. Scott); A. E. Huggins, Esq. (M D. Turner); G. Stanton, Esq.; A. B. Gill, Esq. (Mr. Pope); and W. Bazeley, Esq.

THE GARDEN.

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CONTENTS.

Lilium giganteum and its Culture.. 605
Notes of the Week
Forthcoming events 606
Correspondence
Blackberries for bottling 606
A rare hardy plant 607
Planting Box edgings 607
Gardening of the Week
For the South and South Midlands.. 607
For the North and North Midlands.. 607
Fruit Garden
Fruit notes 608
The Pine-apple .. 608
Kitchen Garden
How to prepare new Asparagus beds .. 608
Greenhouse
Berried plants for the greenhouse .. 609
Cypripedium Iolanthe 609
Rose Garden
Rose-growing in the West Indies .. 609
Strong *v.* weak Rose plants 610
Flower Garden
Dry walls in winter 610
A gorgeous summer-house 610
Rock Garden
Dwarf trees and shrubs for the rock garden.. 611
Trees and Shrubs
Current work in the shrubbery 611
Cotoneaster rotundifolia 611
Gardening for Beginners
Garden work week by week 612
Planting wall shrubs and hardy climbers 612
Asparagus in clayey beds 613
Violets in frames .. 613
The Town Garden.. 613
Trials of Runner Beans 614
Answers to Correspondents
Flower garden .. 614
Rose garden 615
Fruit garden 615
Miscellaneous .. 615
Societies 616

ILLUSTRATIONS.

Pine-apple Smooth Cayenne 608
The new Cypripedium Iolanthe 609
A dry wall in November, 1909 610
The same wall in November, 1910 611
How to plant wall trees and hardy climbers .. 612, 613

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

LILIUM GIGANTEUM AND ITS CULTURE.

FEW who have seen the Giant Lily of the Himalayas in free groups in the woodland or shrubbery, its stately flower-crowned stems towering away to 10 feet or even 12 feet in height, would deny it a prominent place among its tribe. It is, indeed, a giant; and because of a stature and grandeur at flowering-time that are practically unique, and equally because of a presence that is worthy of the best associations a garden can offer, it should be more frequently seen in those positions best suited to display it to advantage.

Essentially a Lily for the woodland, for the fringes of the bolder shrubbery borders, for free grouping anywhere in the garden where tree and shrub are near at hand, and where these things not merely constitute an admirable setting for the plant, but will reflect its best attributes as in a mirror, it is certainly not fit that it should be alone; rather should it be made to yield of its noblest and best, to render more beautiful or picturesque the frame—the setting—in which it may have been placed. The subject of my remarks is one of those fine garden plants that is immeasurably benefited by its surroundings, provided these be of the right kind. It is not, indeed, while producing the finest effects in the positions already indicated, calculated to favourably impress the landscape gardener in the least if planted as solitary examples in the herbaceous border; nor do I consider it fitted for such a place, and certainly do not recommend its being planted there. It is far better that it should thrust its stately shafts from a thin planting of shrubs, and better still where these, by their near proximity, lend a helping hand, as it were playing their part to framing or forming one of the best pictures a garden could possibly contain.

We see the Madonna Lily often enough in our gardens and admire its chaste purity at all times, but the plant with a brick wall as a background cannot compare with that associated with Holly or Yew or other dark-leaved shrubs, and which but make the picture more complete. So it is with the plant of which I write, a plant of character and incomparable dignity. Hence the first duty of the would-be cultivator should be to seek out and give it the best place the garden offers, and, by affording it congenial as well as natural surroundings, do what he can for picture gardening as a whole.

The plant, so far as its soil requirements go, cannot be regarded as fastidious, seeing that it is quite a success in light sandy loam, in peat soil, and often in soils of a more loamy character. The more tenacious of clay soils it appears to dislike, if not to abhor, and should not be planted therein. At Wisley, in the sandy and light soils, the plant is moderately successful on the let-alone plan, though it cannot be said to reach its highest excellence so treated. Its vigorous nature requires something more than this, and a deeper supply of richer soil appears desirable. To good sandy loam I would add peat, leaf-mould and well-decayed manure in equal parts, with which, and good drainage assured, there need be no fear of failure. Water and liquid manure may be given during the season of growth. Occasionally the young leaves are damaged by spring frosts; hence the greater value of the leafy protection already suggested.

For the amateur, who learns by costly experience, the chief danger—with which is embodied disappointments and absolute failure at times—is the purchase of big and what are known as "flowering bulbs." The mistake is a fatal one, and I warn intending planters in consequence. For flowering purposes these "flowering bulbs" are valueless; the product of such bulbs is a yard-high stem without flowers. An absolutely essential item culturally is that this Lily must be established in its place if its characteristic stature and fine flowering are to be obtained. This can only be assured by planting half-grown, *i.e.*, two year or three year old bulbs. By these means there is reserved to the plant the stored-up energies and root activity of several years—all the vitality and force, indeed, of the established example unimpaired. The big "flowering bulbs," monsters as they are, having been lifted and dried and denuded of many roots, are never satisfactory; and these notes are penned to discourage the sale of an article which is but a delusion and a snare. In short, Lilium giganteum cannot be planted in 1910 for flowering in 1911 with success. In the latter year would come its inglorious end, and, its output exhausting its resources, collapse is the result.

The half-grown bulbs may be purchased at about one-third of the price of monster bulbs; hence, by the purchase of a few bulbs each year, a permanent stock is obtained. From seeds the plant usually takes six

years before the flowering stage is reached, and the half-grown bulbs three years or four years from the time of planting. Once these youngsters have become established, the plants at flowering-time produce offsets to perpetuate their kind, and those who really love open-air gardening will not grudge the first wait for so good a prize. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 12.—United Horticultural Benefit and Provident Society's Committee Meeting.

December 13.—Perpetual Flowering Carnation Society's Show at the Royal Horticultural Hall, Westminster.

National Sweet Pea Society. — The annual general meeting of members of the National Sweet Pea Society will be held in the North Room, Hotel Windsor, Victoria Street, Westminster, S.W., at 3 p.m., on December 15. A presentation of silver plate will be made to Mr. and Mrs. Charles Foster on this occasion. A Sweet Pea conference will also be held at the Hotel Windsor on the above date, commencing at 7 p.m., when the following papers will be read: "Judging Sweet Peas," by Mr. Walter P. Wright, and "Cultivation of Sweet Peas," by Mr. George Herbert. For the convenience of members dinner will be provided at the Hotel Windsor at 5.30 p.m. on the above date. Tickets 5s. each (exclusive of wine).

Carnation and Picotee Society for Ayrshire.—The number of cultivators of the Carnation and Picotee in Ayrshire is very large, and an effort is being made to establish a strong special society in the shire to encourage the cultivation of these flowers and to form a common ground on which the lovers of the flower can meet. A meeting for this purpose was held in Kilmarnock on the evening of November 26. It was convened by advertisement, signed by Mr. J. Henderson, Cloverlea, Cumnock, and Mr. David Walker, Kilmarnock, occupied the chair. The response was favourable, and it is expected that the proposed society will have a strong membership. In Mr. Walker the society has a valuable asset, that gentleman being a noted grower of the Carnation and Picotee and a well-known prize-taker.

Sale of poisonous insecticide. — The Pharmaceutical Society of Great Britain brought a claim against Mr. C. W. Breadmore, seedsman, of High Street, Winchester, for the recovery of £5, the amount of a fine imposed upon him by the society for the alleged non-compliance with the Pharmacy Act of 1908 for not affixing his name to a bottle of poison. Mr. George Waldock, acting on the instructions of the society, paid a visit to the defendant's shop and asked to be supplied with a bottle of XL All Insecticide. Mr. Waldock was served by an assistant, and gave his name as "Mr. Wilson of Shawford," and that name was duly entered in the poisons register kept by defendant. His Honour pointed out the negligence on the part of the society in allowing their agent to purchase a poison under a false name, and further pointed out that the society through their agent were doing that which was the one thing above all others calculated to defeat the ends of justice. Anything more lax, casual and unbusinesslike on the part of a public authority His Honour had never heard. He viewed it as a bad case, as it was not becoming that a public body should permit their agents to do what really was fraud. His Honour found as a fact, and on the evidence he was satisfied, that this bottle was sold with the label, and that the plaintiffs had failed to prove their case.

Sweet Pea trials for 1911.—The committee of the National Sweet Pea Society will hold its annual series of trials at *The Times* Experimental Station, Sutton Green, near Guildford, in 1911, and will test novelties and grant awards and certificates according to merit. No awards or certificates will be granted to Sweet Peas unless they are sent for trial at Guildford. For these trials the varieties will be accepted only from the raiser or introducer. A charge of 2s. 6d. for each variety will be made. Orange and salmon coloured varieties will be shaded in these trials if the raiser or introducer expresses a wish that they should be so treated. Varieties placed at the head of each colour class in the classification list for 1911 will be grown at the trials as standards of comparison. At the request of numerous seedsmen the committee will conduct a further and distinct trial solely for the purpose of testing correctness and purity of stocks of Sweet Peas. A charge of 10s. per variety or stock sent for this trial will be made. Sweet Peas for these trials must reach Mr. Charles Foster, *The Times* Experimental Station, Sutton Green, near Guildford, not later than January 14, 1911, and in every instance the colour class to which the variety belongs should be stated. For the novelty trials not less than fifteen seeds should be sent, and for the purity trials not less than two dozen seeds of each variety or stock. At the same time a list of the varieties, together with the amount due for trial charges, must be sent to the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford, Middlesex. The proceedings of the floral committee will be printed in the autumn of 1911, and a copy will be sent to every person or firm sending seeds to either or both of the sets of trials.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Royal Horticultural Society's Classification List of Daffodils.—In your issue for November 26 you invite a little correspondence and comment upon this classification. Personally, I am very pleased indeed to see the Royal Horticultural Society have published this new revised list, dividing it into ten classes, for I think now we have a classification that will, or should, suit the most fastidious grower or exhibitor. I had very great hopes that this classification list would have been published much earlier, so that the different societies might have adopted it for their spring exhibitions of 1911. I had a note of this classification, and in my book "All About Daffodils" the types and varieties were all arranged after this classification. I tried to induce the committee of the Midland Daffodil Society to adopt it, but so many were opposed to adopting any classification until such a list was finally published that we fell back upon the old one for the time being; but I do hope in the future all societies will give this new classification a fair and whole-hearted trial, feeling sure that when it is once adopted it will give universal satisfaction. —ROBERT SYDENHAM.

The Perpetual-flowering Carnation. I read with considerable interest your most excellent leading article on Perpetual-flowering Carnations in THE GARDEN for November 26. You touched upon several points which are only too true. How fully the market-grower realises the value of the Perpetual Carnation is evident by the miles of glass devoted to its culture; but it is equally true that one-half of the amateur and private gardeners have not, as yet, woke up to the fact that in the Perpetual Carnation we hav one of the greatest flowers of all time, and on which stands omnipotent with the Orchid and th Rose. It is essentially a flower for the amateu and private gardener, because, as you say, "the culture is not difficult," providing the fundament principles, such as a cool temperature, good ligh and air, are adhered to. You mention the vit importance of raisers of Perpetual Carnation working to improve and strengthen the scent i the flower rather than working with the sole obje of improving its size and colour. The Perpetu Carnation has not become great owing to any on single charm, but because of its all-round goo qualities. Scent is most certainly one of th greatest of them, and at the expense of bein thought egotistical I may say that we have raise some of the most strongly perfumed Perpetu Carnations now in existence. We have prove perfectly to our own satisfaction that the Me delian law in the matter of scent in raising Perpetu Carnations can be practised with unerring accurac It behoves the Carnation societies to give mo points for scent in the awards for new varietie and so encourage the raisers to work and increa this great charm in this type of Carnation. A present the percentage of novelties in Perpetu Carnations is one in 3,000 seedlings. If scent more rigidly demanded, it may be one in 4,00 But what matter? The fewer novelties the are the more they are worth, and too many nove ties, such as we see in Roses and Sweet Peas, a detrimental to any flower. It is not quantit but quality we should strive for. The Nation Carnation and Picotee Society certainly failed appreciate the possibilities in the early varieti of Perpetual-flowering Carnations, and it no looks as if the new-comer must eventually swam or engulf them, for its wonderful productivene under glass during the winter, or, as you poi out, in the open garden during the summer, mak it pre-eminent in the Dianthus family. I al think that the variety of forms of the flower is additional charm, for while the florist may imagi that the smooth-edged, more artificially form flower is the more beautiful, does the public, wh after all, are the final judges, think so? No. L us have our Carnations in all the varying forms Nature presents them to us. — MONTAGU ALLWOOD, *Bush Hill Park, N.*

New single Chrysanthemums. — T letters of "E. G." and "A. D." in your issue November 26 ask for the more frequent cultiv tion of the single as opposed to the large flower Chrysanthemums. We are all tired of the larg flowered varieties, chiefly because they are ina tistic. In Japan, I believe, they are grown 2 fe in diameter, but I cannot see any advantage this great size. One constantly hears it sai "Oh, a Chrysanthemum show; I am not going look at these ugly things," and it has been fou advisable to accentuate the fact that our Bourn mouth autumn show is not entirely a Chrysanth mum show. It is not so with the pretty sing Chrysanthemums; and while I write I am looki at the flowering plants of Elsie Neville (red ter cotta), Innovation (best by electric light), Mrs. Clark (like large Marguerites) and Mrs. Filki (small feathery yellow), all of which, if your cor spondent "E. G." does not already know, he w find worth cultivating.—G. G. H.

Blackberries for bottling.—In readi the note by "A. D." in THE GARDEN for Nove ber 19, one is pleased to see his appreciative remar regarding the Cut-leaved Bramble or Blackber (Rubus laciniatus). It is by far the best and mo reliable of the Blackberries, at least for the cold parts of the country. Those who embark largely on the cultivation of some of the new

American Blackberries introduced some years ago may have had occasion to regret doing so, but growers of R. laciniatus whom I have met never do. I have grown several of these newer Blackberries and have seen them tested in many gardens, but none of them has come up to R. laciniatus in fruit-bearing and ripening qualities. Such varieties as the much-boomed Wilson Junior proved a comparative failure in the colder parts of the country.—S. A., *Dumfries.*

A rare hardy plant.—I have read with interest the note on Kirengeshoma palmata in THE GARDEN for November 19, and think the writer would have done well to have referred your readers to its coloured portrait in the one hundred and thirtieth volume of the *Botanical Magazine*, plate 7944. I think it is much to be regretted that so absurd and inappropriate a name should have been given to this interesting and beautiful hardy plant by the Japanese botanists. The name is compounded, according to the account in the *Botanical Magazine*, of two Japanese words, "ki," yellow, and "ringeshoma," the Japanese name for the plant known to us as Anemonopsis macrophylla, figured on plate 6413, Vol. CV. of the *Botanical Magazine*. So far as I can see, the flowers of these two plants in nowise resemble one another in shape or form, and why this interesting new plant should be sent to Europe as the yellow Anemonopsis, I should say, was only known to its namers, the Japanese botanists. The number of THE GARDEN referred to contains much interesting matter.—W. E. GUMBLETON, *Belgrove, Queenstown, Ireland.*

Planting Box edgings.—In the article on the above subject which appeared in THE GARDEN for November 19 it is mentioned that when pieces of Box with roots are scarce sprays without roots may be used, "and the results are sometimes unexpectedly good." May I describe a method of renewing Box edging taught me by an old-fashioned gardener, and which I have always found produce the close, even, narrow edging desired in a few months' time. When the trenches are prepared as your writer describes, only 9 inches in depth, have a line stretched tight the height one wishes the edging to be. Get a block of wood and a sharp hatchet, cut a thick stick about 10 inches long to act as a measure, and then take your old Box edging—or, if you have bushes of Box, boughs of it—and, holding clumps of it in your left hand across the block of wood, chop the whole of it into lengths, guiding yourself by the measuring stick, so that the shoots will be practically all about the same length. Just see that as they fall they all lie the same way, and in a few minutes you will have piles of pieces, thick and thin mixed, all about 10 inches long and most of them without roots. Take them up in handfuls and place them thickly against the side of the trench with their tops even with the line—it should be about 3 inches above the path side of the trench. Tread the earth really tight against the Box and every piece will root. If two men are at work and have a big barrow-load of chopped Box, one placing and holding the pieces in position and the other earthing and treading it in, yards of it can be done in a few minutes, and it leaves it looking compact and neat, and the moment it starts new leaves in the spring it cannot be distinguished from old-established edging. The secret of success is to put the Box in thickly and at least 7 inches in the ground, so that frost will not damage its rooting, and to tread it really firmly. The advantage is that any pieces of Box can be used and, being all the same length, they can be laid quickly and evenly. The Box can be chopped up any rainy day in the sheds if it is stored in a damp place. —M. E. DOBBS.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

POT ROSES.—A few well-established plants may now be placed in a cool greenhouse to start. Prune and thoroughly cleanse the plants before putting them inside. A night temperature of 50° to 55° Fahr. is ample to commence with, and when growth is apparent a higher temperature may be afforded. Slight disbudding will be necessary when good blooms are required, and this may be done before the buds burst into leaf.

Chrysanthemums.—As these pass out of flower and are cut down, those required for stock should be placed in cold frames, covering them at night to prevent frost getting in. The work of propagating must proceed as cuttings are available.

ROCK GARDEN.

Where it is intended to make any additions to this department, the work should be proceeded with so that it may get settled ready for planting in the spring. In carrying out the operation the various plants intended for the different places must be borne in mind, and soils used that are most suited to the plants. Thus, peat will be required for Lithospermum prostratum; loam, leaf-soil and mortar rubble for the majority of the Dianthi; a shady, damp position with peat for Ourisia coccinea, and so on. Therefore it is a great mistake to make any part of a rock garden without exercising care all through the work. In fact, the positions must be made for the various subjects. Of course, the Aubrietias, Alyssums and similar plants are not so particular as to soil or position; but, again, the choice Androsaces and Edraianthuses are most fastidious. A rich soil must be avoided in any case, for it is the chief cause of many losses during the winter. When put in rich soil the plants make gross growth during the summer, and become so tender that at the least touch of damp and frost they die.

KITCHEN GARDEN.

Peas.—It is an excellent practice to sow a good batch now in pots for planting out. Three-inch pots are most suitable, and six or eight Peas may be sown in each. The pots do not require crocks in the bottoms; just a little old Mushroom-bed material will suffice, and the soil may be put on this. After sowing, the pots should be stood in a cold frame, and here the seed will quickly germinate. The plants must be grown as hardily as possible, exposing them on every possible occasion by removing the lights. Before sowing the Peas should be dressed with red lead; and in spite of this a sharp watch must be maintained, or mice will have them. Chelsea Gem and Little Marvel are both good varieties for the purpose.

French Beans.—To provide a succession fortnightly sowings are necessary. Great care must be exercised regarding watering and syringing, as excessive moisture causes wholesale damping off at the stems, especially at this dull season.

Mint and Tarragon.—A few seed-boxes should be filled with roots and soil worked in with them, when they will be in readiness for forcing as required. If propagation by cuttings was attended to as advised earlier, lifting will not now be necessary, and it will be found that the young roots force better than the old.

E. C. POOLEY.
(Gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

PRUNING FRUIT TREES.

RED CURRANTS.—As these produce the bulk of their fruits on spurs, close pruning is necessary except in the case of young bushes, which must, of course, be rather lightly pruned, so as to allow them to rapidly gain size. The pruning of old bushes is a simple matter. Cut back all young growths to within 2 inches or so of their bases. The leaders may be allowed a length of about 6 inches. If from any cause the branches have become crowded, remove some of the oldest and worst-placed, and so admit light and air to every part of the bush. Any suckers that are present must be pulled clean out. White Currants demand exactly the same treatment.

Black Currants.—All the finest fruits are borne on the previous year's wood, so that pruning, in the ordinary sense of the word, is unnecessary. All that is necessary is to cut out entirely a part of the old wood, so as to open up the bushes. Always select for removal the oldest and most worn-out branches, and cut back as low as possible. By doing this room is made for strong suckers to push up during the summer.

Raspberries.—If the old canes were cut away soon after the last of the fruit was picked, the only thing to be done now is to remove some of the new canes where there is crowding. Tie in all the necessary canes to their supports, but do not cut off the points until March.

Apples.—Some little knowledge of the varieties is necessary before one is able to properly prune a collection of Apples. Some well-known varieties, such as Mr. Gladstone, Irish Peach, Lady Sudeley and a few others, produce the flower-buds on the ends of the shoots. To prune these kinds in the ordinary way would mean very light crops indeed. A judicious thinning is all that must be attempted with these. Some sorts give very strong, upright growths, and if hard pruning is given, very vigorous wood will result. Others, again, are of a rather weak, pendent form of growth, and may, in most cases, be spurred in fairly close.

Pears.—The bulk of these in our Northern gardens must have the protection of walls, so that spurring is the usual method of pruning. If summer pruning was properly attended to, all that is now necessary is to shorten back the shoots to two or three eyes.

Plums, Apricots and Cherries.—Somewhat similar treatment to that advised for Pears will suit these; but as a rule they should not be so closely spurred back. Morello Cherries fruit on the young wood, so that pruning consists in thinning out where too crowded and laying in as many of the strong young shoots as there is room for.

TRAINING WALL TREES.

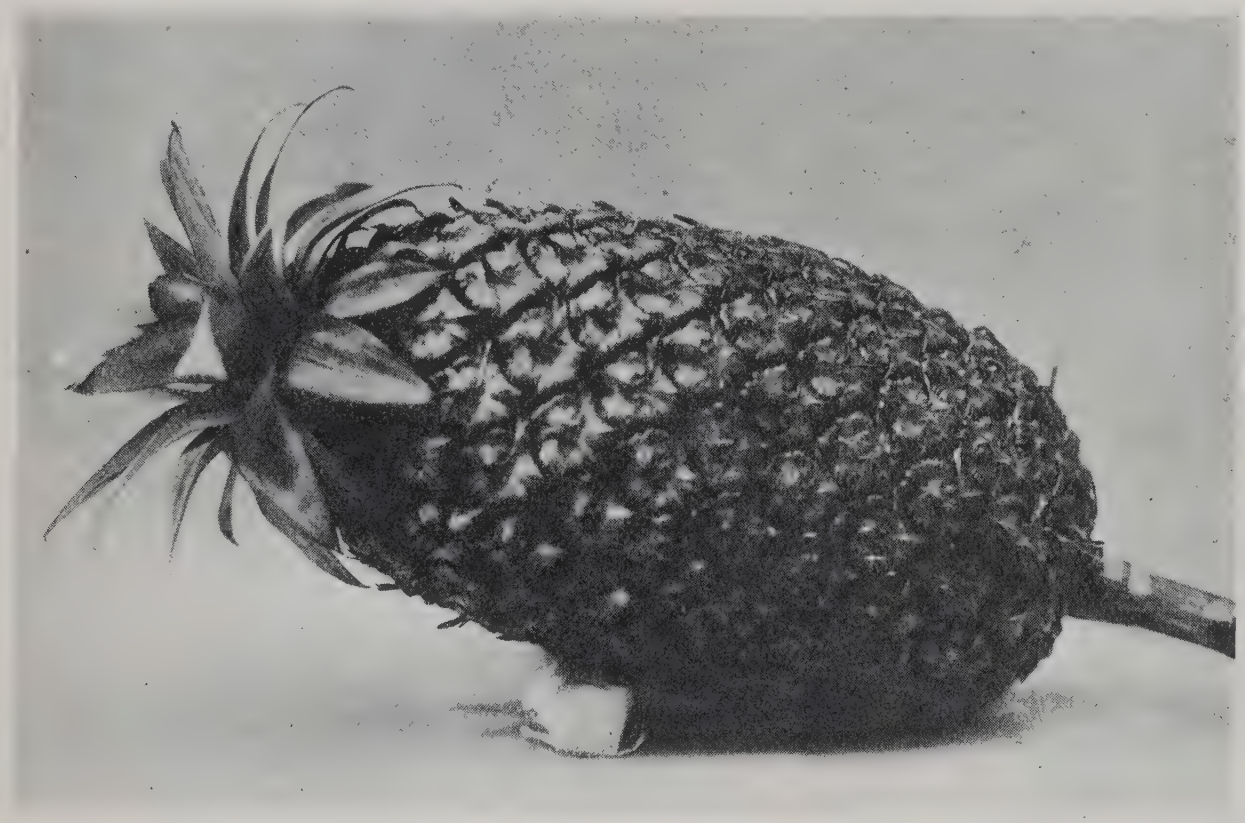
Nailing.—This is one of the most disagreeable winter tasks in connection with gardening. Fortunately, in a great many gardens nowadays the walls are properly wired, and this is indeed a boon to the gardener. When nailing is still the method of fixing the trees, it is a comparatively easy matter if the walls are built of, or faced with, brick. In this locality the majority are of whinstone, and it is almost impossible to properly train a young tree on these. However, no matter what the walls are like, it is important to get all nailing and tying finished at as early a date as possible. Much better progress will be made with this work in fairly mild weather, and it pays to send the staff for a few hours during the warmest part of the day to attend to the fruit trees on walls.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE FRUIT GARDEN.

FRUIT NOTES.

WASHING AND SPRAYING.—Although it has been proved to the point of demonstration that the efficient washing and spraying of fruit trees during their period of winter rest are advantageous, there are still many growers who will not take the trouble to practise them. If this only redounded to their own disadvantage it would not matter a scrap, but it should be borne in mind that careless or ignorant cultivators propagate pests for others, since the enemies spread from the dirty to the clean cultures. No efforts ought, therefore, to be spared to persuade everyone who goes in for fruit to adopt the best measures of repressing the many insects by which the plants are attacked. When the trees are at rest it is easy to thoroughly scrub the bark to the full accessible height and to spray the remaining portion of the tree with a caustic soda wash; and if this is followed up for two or three seasons the effect in the appearance of the bark will be remarkable; and not only that, but the tree will be in far superior health, and consequently infinitely more capable of bringing crops to perfection. The solution ought to be well brushed into all nooks and crannies of the rough bark and into the forks with a view to ensuring the death of lurking insects and, if possible, the destruction of any eggs that may have been deposited therein, but the latter is not readily achieved. Whether a caustic wash is being used through a sprayer or with the aid of a brush, the operator must guard the hands with gloves, wear old clothes and a soft, wide-brimmed hat, which will tend to reduce the probability of the burning spray blowing back into the face. If it is deemed imperative that the younger shoots carrying excellent buds shall be scrubbed, the worker must exercise particular care to proceed in the same direction as the buds point, or many will be dislodged, and thus the remedy will become as bad as the disease. Properly carried out, this winter washing is most beneficial, but to be fully effectual it should be done by all, and not by the few as at present.



PINE-APPLE SMOOTH CAYENNE. THIS FRUIT WEIGHED NINE POUNDS.

STAKES.—When the weather is dry and frosty during the winter, and it is not possible to push on the pruning or to do any land cultivation, a spare hour should be found to test all the stakes that are supporting the trees planted last autumn. Of course, sound, strong supports would have been utilised at the outset, and probably the ends tarred or soaked in paraffin to preserve them, but some will always go, and the more quickly they can be removed and new ones put in the better. When the old stake is out, the fresh one should be driven down into the original hole so as to avoid injury to the roots, and, immediately it is in position, securely attach the stem to it.

PLANTING.—This important work will be practically at a standstill from the present time onwards to the end of January, not because it cannot be successfully accomplished at this season, provided that the weather is favourable, but because the weather is so uncertain that it is risky to put such tasks in hand. It is always possible on any day that a long spell of frost will set in, and it is most undesirable to have a lot of trees waiting to be planted; therefore it is usually wise to leave the matter severely alone during the period mentioned, the trees meanwhile being heeled in where the roots will remain plump and moist. With the advent of February better climatic conditions are likely to prevail, and the trees can soon be properly placed in their permanent quarters.

PRUNING.—As long as the weather remains open, and during intervals between hard spells or wet, the pruning should be advanced with all speed. I would urge the desirability, when once the foundation of the trees has been properly formed, of limiting the use of the knife to the removal of crossing or badly placed branches and the reduction of unripe tips of the growths. This means, of course, that the tree will quickly assume its natural habit, and this is precisely what favours the finest crops. The severely restricted shape that has to be adopted in many gardens is by no means conducive to the finest results, and the operations connected with it take up valuable time which might well be more profitably used in other operations in the garden. Obviously these remarks are not applicable to trained trees, but only to those grown as bushes or as standards in the open quarters. FRUIT-GROWER.

THE PINE-APPLE.

NOT many years ago the cultivation of the Pine-apple was looked upon as a test of the gardener's skill. To-day things are quite changed, for Pines are not to be seen in one good garden in a hundred. We could name many famous gardens, commencing with the Royal Gardens at Frogmore, where, owing to the fall in popularity, Pine pits have either been pulled down or put to other purposes. The comparatively low prices commanded by imported Pines may, to some degree, be accountable for this complete change; but when we consider the superiority in flavour of the home-grown fruit we are compelled to seek another reason for the decline. The real cause lies in the fact that the Pine-apple is no longer "fashionable" as a dessert fruit. In those gardens, however, where Pines are still grown it is interesting to observe that they can be produced with the same degree of success as in years gone by.

At a recent exhibition of the Royal Horticultural Society two handsome specimens of Smooth Cayenne Pines were shown by Mr. T. Coomber, gardener to Lord Llangattock, The Hendre, Monmouth. The larger of the two fruits weighed 9lb., and is shown in the accompanying illustration. The fruits were of grand colour, fine perfume, beautifully finished and with small crowns. A silver Knightian medal was deservedly awarded to this choice exhibit.

THE KITCHEN GARDEN.

HOW TO PREPARE NEW ASPARAGUS BEDS.

ALTHOUGH with good attention and management Asparagus will continue to produce a good crop for many years it is advisable to make fresh plantings at intervals to meet the demand and before the old plants become too exhausted. Undoubtedly the best time to plant is about the first week in April, just when the new growth begins; but the beds should be thoroughly prepared some time previous, so as to allow of the soil settling. At one time it was thought, and is probably at the present time with some, that the more manure employed when preparing new beds the better would be the results; but I am more than satisfied that too much manure is detrimental to the roots of Asparagus, and in many instances better results would accrue if just a moderate supply was employed.

This should be thoroughly decomposed and mixed in with the soil as the trenching proceeds. The nature of the soil is one of the most important items to be ascertained and considered. Some vegetable gardens contain an equal depth of good, fertile soil, and others are just the reverse. The latter naturally require a great deal of extra care and preparation to render them suitable for growing the different vegetables called for almost daily throughout the whole year.

When about to make new plantations of Asparagus, the best course to adopt is to select a suitable position and set out the bed the width required—about 4 feet will be found a fair size; then drive strong stakes well into the ground at the corners of the beds and trench deeply, adding as the work proceeds plenty of well-decayed manure, wood-ashes and other suitable material. Drainage is of the first importance, nothing being more harmful and injurious to the fleshy roots of Asparagus than a cold, stagnant subsoil. In some gardens

the land is naturally well drained, and needs but little further attention in that respect, while in others just the reverse is the case. I prefer to make the beds in autumn, if possible, and during the month of February or March, according to the state of the weather, trench back the soil so that the manure and other materials added may become thoroughly incorporated with the whole.

I depend on one or two year old plants raised from a good strain of seed, and finally planted 15 inches to 18 inches apart, so that each may have ample space for development. In the absence of plants, seed may be sown in rows or dibbled in where they are to remain in patches at the distance apart mentioned. I have also raised young plants in a moderate warmth, sowing the seed 2 inches or 3 inches apart in shallow boxes filled firmly with good soil, duly hardened them, and then planted them out in favourable weather, with excellent results.

H. MARKHAM.

Wrotham Park Gardens.

GREENHOUSE.

BERRIED PLANTS IN THE GREENHOUSE.

PERHAPS we hardly appreciate to the full the value of berried plants for the embellishment of the greenhouse during the winter months. This applies not only to the tender subjects, which may be regarded solely as greenhouse plants, but also to some of our hardy shrubs with fruits of an ornamental character. Of these small examples laden with berries are very useful at this time in the greenhouse or for other decorative purposes. The value of some of them in this respect has been well shown of late at the meetings of the Royal Horticultural Society, for there berried shrubs have loomed largely.

Of tender subjects the most extensively grown is Solanum Capsicastrum, sometimes called the Winter Cherry. The forms of this now commonly grown are much superior to those which were at one time obtainable, and model little bushes laden with fruits may often be seen on costermongers' barrows in the streets of London. They are largely cultivated by market-growers and disposed of at a cheap rate. The various kinds of Capsicum have also bright-coloured fruits of different size and shape, many of them being very ornamental, though scarcely so often seen as one might expect. Rivina humilis, which needs the warmest part of the greenhouse, or even an intermediate structure, is exceedingly pretty with its clusters of Red Currant-like berries. Of this there is also a form with yellow fruits. The scarlet-berried Ardisia crenata is an old and well-known occupant of our greenhouses, being at all times an ornamental evergreen shrub, and when laden with its bright-coloured fruits it is, of course, additionally attractive. The berries, too, remain fresh and bright for a considerable time. There is a form with white berries, but they are less effective than the red ones and, as a rule, not so freely borne. Of tender subjects the last to mention is Callicarpa purpurea, with a profusion of small purple fruits, which are at their best during the present season.

Of hardy shrubs available for greenhouse decoration there is now a considerable choice, prominent among them being Pernettya mucronata, of which little bushes may be obtained absolutely laden with berries. There is a great variety in colour to be found among them, as they range from milk white to a deep purple, almost black. In growing Pernettyas it should be borne in mind that they succeed best in a moist, peaty soil such as Azaleas and Rhododendrons delight in. Skimmias, too, are valuable for their berry-bearing qualities. The neatest is that long grown in gardens as Skimmia japonica, but this has now been altered to Skimmia Fortunei. This is a compact plant, with deep red berries. A notable feature is that the flowers are self-fertilising, whereas in the other kinds the male and female flowers are borne on the same plant. That very showy, bold-growing Skimmia known as Foremannii is strictly a female, the male being that usually grown as Skimmia fragrans.

Cratægus Pyracantha, particularly the variety Lalandi, is a very ornamental pot plant when laden with berries, but it is seen at its best when from 3 feet to 6 feet in height. Aucubas are justly valued for their bright-coloured berries, but in their case it is very essential to remember that the male and female flowers are borne on separate plants. Such being the case, the different sexes must be associated together or artificial fertilisation resorted to. This last is the best plan when small plants well furnished with berries are needed for indoor decoration. A popular variety for this purpose is that known as A. japonica vera, of a dwarf habit, with bright green leaves and a profusion of rich scarlet berries. It is in every way valuable for indoor decoration, its hardy nature standing it in good stead in positions where more tender plants would suffer.

H. P.

THE NEW CYPRIPEDIUM IOLANTHE. (*Much reduced.*)

CYPRIPEDIUM IOLANTHE.

QUITE a number of new Cypripediums have been raised during the past few years, but of them few possess so many good points as the new variety Iolanthe. As may be readily seen in the accompanying illustration, the plant carries a flower remarkable for its good form, having a broad dorsal sepal, which is distinctly spotted. Like most novelties among Cypripediums, it was obtained by cross-fertilisation, its parentage being the well-known varieties C. insigne Sanderæ and C. Euryades. It was recently shown before the Orchid committee of the Royal Horticultural Society by Messrs. James Veitch and Sons, Chelsea, when it was granted an award of merit.

ROSE GARDEN.

ROSE-GROWING IN THE WEST INDIES.

IT may perhaps interest other readers of THE GARDEN to know something of our efforts here. Rose-growing in greenhouses does not exist, nor do we grow them in pots. We succeed fairly well with some Roses in tubs, *i.e.*, halves of a large beer-cask, and notably La France, which is perhaps our only Rose that really does better in a tub than in the ground. It is well to remark here that our Roses planted out have often to stand a temperature of 120° on our hottest days, and it is really wonderful that we get such fine blooms. The stock we use for budding would seem to be entirely different from any mentioned in the various Rose books. To begin with, it never bears a Rose of any sort, and if well nourished will often throw shoots 6 feet long. On these I have often put ten buds at a distance of 6 inches apart and, when the stock has matured enough, cut off the shoot and divided it up into plants, of which I get a large percentage to grow, leaving a couple of eyes of stock to ensure rooting, destroying these by cutting them out as soon as I am sure of my cutting growing. If this is done carefully, I seldom see "wild wood" afterwards. I have a fairly large garden, containing about sixty different varieties, and most of them do well. I would, however, like to import some good climbing Roses to cover my walls around the garden. These are partially shaded by trees, and I would be obliged to grow the Roses in tubs, as the trees have entirely filled the soil with roots. They have been cut off from the Rose garden proper. I would be very much

obliged if you would advise me as to what you consider suitable, both from a leafage and a flowering point of view. I may mention, for example, that Crimson Rambler will not bear here. I have Maréchal Niel, Prince de Bulgarie and Belle Lyonnaise. The walls I would particularly like to work on are north-easterly and southern; but I really do not think the aspect matters so much here. Both Captain Christy and Kaiserin Augusta Victoria do well, and very likely the climbers would, too; but I would like to get a strong yellow, pink, and crimson. All the very double Roses do well; in fact, some do quite as well as in England. For instance, Earl of Dufferin bears splendid blooms, often four and five on a stem; but those with only a few petals do not stand our hot sun so well.

Barbados, West Indies. MARTIN DOORLY.

[We thank our correspondent for the above interesting note. Undoubtedly the double Roses are best for such a climate as the West Indies, and especially those having a Tea-scented strain in them. We should say some of the ordinary non-climbing Roses would be a success, such, for instance, as Souvenir de Pierre Notting, Etoile de France and Perle des Jardins. Here in England, under glass, such Roses will grow and flower more freely than the ordinary fast-growing climbers. A good strong yellow would be climbing Perle des Jardins, and Duchesse d'Auerstadt is first-rate in leafage, but a rather shy bloomer. Bouquet d'Or would be good, and Gloire de Libourne is a beautiful clear yellow. Mme. Hector Leuilliot and Mme. Charles Monnier are also grand orange yellows. Good pink Roses would be Climbing Captain Christy, Climbing Mme. de Watteville and Climbing Caroline Testout; and for crimson, Climbing Liberty, François Crousse, Hugh Dickson and His Majesty. You should certainly try the Lyon Rose. It is a glorious colour and would do well on one of the walls; Climbing Kaiserin Augusta Victoria would be almost certain to succeed. A glorious carmine-coloured Rose with big double flowers is Mme. Joseph Metral, a variety that certainly ought to be planted.—ED.]

STRONG *v.* WEAK ROSE PLANTS.

Now that the time for purchasing Roses has arrived, it may be well to warn readers against the practice of demanding strong plants, or perhaps I should call them coarse and overfed. It stands to reason that a much overfed plant cannot produce the same kind of well-matured wood that is found upon one of medium strength. Different varieties have distinct habits of growth, so that we cannot well expect to get a plant of La France or Mme. Ravary so strong as a naturally grown maiden of Mrs. John Laing, Fisher Holmes or Grüss an Teplitz. No wood that has grown succulent and pithy will pass through the ordeal of transplanting and the frosts of winter so well as that of medium growth but well ripened.

I have frequently heard the amateur complain about the smallness of some plants in his consignment, when really they were the plants I would have chosen; and a healthy, ripened plant, however small, will give the best satisfaction in the end, for all of the wood will survive the winter and transplanting. With the newer race of ramblers, such as the wichuraianas and their hybrids, there is far too much attention given to getting plants with long shoots of the present season's growth. Now, in the ordinary course of events a great deal of this wood will be immature at the ends, and quite half of it could not possibly be saved through an ordinary winter sound enough to flower the following spring. It applies not only to the Rose, but to other subjects also, notably fruit trees, that the more vigorous the growth made by the bush or tree the less inclined is that plant to produce either flowers or fruit. The cropping propensities being in inverse ratio to the rampant growth. It is the healthy plant of moderate growth that gives the best result. It is better to let the plant make the required growth in its permanent quarters. Then, again, it is the usual, and correct, thing to advise hard pruning for Roses the first season after planting; and where is the utility of long growths then? I hope this note will prevent some few from demanding extra strong plants. A. P.

A DRY WALL IN NOVEMBER, 1909. IN 1908 THE SITE WAS A BANK OF THISTLES.

THE FLOWER GARDEN.

DRY WALLS IN WINTER.

THE two illustrations of the same place are from photographs taken in November, one in 1909 and the other in 1910. In 1908 the wall was unbuilt, and this bank was considered beyond garden cultivation and was famous for its Thistles. Books were read and plans of dry-walling studied, but they gave little help, for in them the stones were always right in shape and size; only reality could teach one what a handicap the only procurable stones of the neighbourhood might be. It is a true test of workmanship and perseverance to turn poor material into good work. The material we used was either dug up in this garden or brought here as rubbish to fill in a new drive; so each stone had first to be sorted out of dozens and then to be shaped with mallet and chisel.

Experience was a fine teacher to the amateur builder of this wall. The chief points he learned were these: Have a firm and level foundation trench, with the foundation at least 6 inches below ground-level. Place the stones in layers, and keep them in a straight, horizontal line. As in brick-laying, let one stone lock another, that is, one joint come under the centre of the stone above. The face of the wall must incline inwards, so as to lean against the bank it supports. This wall might be called serpentine-fronted. The first illustration shows how it bows forward in the centre, about one-third of the length being shown. The seedling Pinks, Dianthus plumarius annulatus hybrids, were planted as the building progressed, and were each encouraged by a handful of good loam. The second illustration shows the result. Another thing to remember is to ram and pack the soil tightly behind and between the stones. Just above the Pinks is Convolvulus althæoides. All through the summer its soft pink flowers have shimmered and glowed on this warm, sandy bank, and at this dull season of the year one is thankful for its beautiful silvery grey leaves, shaped like those of the Passion Flower. One word of warning. This graceful Bindweed wants plenty of room—one realises this if the illustrations are compared—for it has now pushed its way through the stones, has invaded the Cistuses, and is fast taking possession of the Nepeta Mussinii above it; but it requires a well-drained soil and a southern aspect to make it such a ramper.

The Cerastium pennsylvanicum is just arriving at its winter's best, for all this young growth has been made since July, when it was cut down to the ground. This bank, which a few years ago was an uncultivated waste, is now, thanks to its wall and its clothing of motley grey foliage, the brightest spot in a November garden.

Abergavenny. (Miss) E. M. WHITEHEAD.

A GORGEOUS SUMMER-HOUSE.

THOSE who wish for an effective arrangement of creepers to cover a small building or summer-house might do worse than copy that seen in a cottage garden last autumn. The building was just a simple wigwam with thatched roof and sides, closely covered with wire-netting. Clematis Jackmanii, Lonicera aurea reticulata and Tropæolum speciosum trained up the sides and massed together at the top combined to make a splendid display, one that lasted for many weeks during August and September. An excellent position had been chosen for each plant. On the north and north-west the Tropæolum rose from a border formed by taking out a trench and wheeling in some thoroughly decayed vegetable mould.

The Clematis was planted on the south-west, and obtained in consequence the greatest share of the rainfall. On the east the Lonicera had the driest position, but this only seemed to intensify the golden colour of its foliage. For both of these no preparation had been made, the rich soil of the garden being ample. The wire-netting on the top not only kept the thatch in order, but also afforded a ready means of securing the creepers. The best time to plant the Tropæolum is in March or April, just before it commences to grow.

Nymans Gardens, Handcross. J. COMBER.

THE ROCK GARDEN.

DWARF TREES AND SHRUBS FOR THE ROCK GARDEN.

THE miniature trees that are sent from China and Japan are very suitable for planting in the alpine garden. Abies excelsa variety inverta is an exceedingly good plant, as it is low-growing. A. pygmæa and A. clanbrassiana are interesting; Azalea rosæflora is excellent, and a batch of six or twelve should be massed according to the amount of room at disposal. A. amœna and its varieties Brilliant, Hexe, Hinodegerii, carminata, coccinea, splendens and narcissiflora are all charming and showy. Rhododendron ciliatum, R. racemosum, R. Anthopogon, R. intricatum, R. ferrugineum, R. f. album, R. hirsutum, R. h. album, R. Wilsonii and R. myrtifolium may be planted as dot plants in the interstices of rocks, where they are exceedingly beautiful and add much enjoyment to the alpines surrounding. Plants of this character and nature require some suitable soil in which to become established, such as peat and leaf-soil with some sand and loam, and they must be made very firm in the soil so that they are not shaken by the wind. Berberis actinacantha, B. Wilsonii, B. deflexa, B. acuminata and B. Thunbergii are all useful and beautiful. The same may be said of Cistus in variety, Cotoneaster horizontalis, C. microphylla, Cupressus lawsoniana compacta, C. nana compacta and Cytisus in variety. Clematis coccinea is charming when allowed to fall over the rocks carelessly. Daphne Mezereum, D. Cneorum major, D. blagayana, Erica lusitanica (codonodes), E. carnea, E. c. alba and many other varieties and species must not be overlooked. Fabiana imbricata (a beautiful Erica-like flower), Gaultheria nummularioides, Genista ephedrioides, G. Ferox, G. hispanica, G. horrida, G. procumbens, G. triquetra, Sedum palustre, Menziesia polifolia and alba, Nandina domestica, Juniperus communis aurea, J. Sabina, J. S. variegata, Retinospora ericoides, R. obtusa, R. nana aurea and Thuiopsis borealis nana compacta all are suitable. Veronica cupressoides is admired both in summer and winter. V. Hectori is another good evergreen, and as a dot plant has scarcely any equal. V. Armstrongii is also very fine. Pinus montana, P. monophylla, P. Mughus and Taxus fastigiata aurea compacta are all useful. Korokea Cotoneaster makes an admirable dot plant, and is always interesting, especially when in flower; it bears myriads of little stellate yellow flowers, and when not in flower its tiny leaves with a white tomentose covering are extremely pretty. A good clump of Chamærops nanus looks very handsome, and should be planted in the warmest position as high up as possible, with some tall shrubs at the back to break the wind. Crinodendron (Tricuspidaria) hookerianum is very charming, and should be put in a snug position in well-drained soil in which some peat and grit have been mixed.

Desfontainea spinosa is a very fascinating plant when in bloom, and an interesting evergreen. This should be planted high up and in well-drained soil, which should also be very firm. It sometimes grows in partial shade placed on the cold side. We have plants that are doing well in both sunny and shady positions. Escallonia langleyensis does well, but should be pruned after flowering to keep it small. Mitraria coccinea is a lovely plant when carrying its bright scarlet flowers in contrast to its pretty, bright, shining, green leaves. This requires partial shade and moist ground in which some peat has been worked. All these dot plants must be secured firmly in the soil, and for the first year water must be given with discretion, especially those planted on shallow, well-drained soil, as in warm nooks and bays they would become baked if not watered most carefully. Plants in such positions are difficult to water thoroughly if allowed to become dust dry, as the water runs away before getting to the roots. It is a good plan to lay stones over the roots, and this very much conserves the water and shades the roots in exposed places from the hot sunshine.

In pools in the alpine garden which are exposed to the sun, clumps of Sarracenias are very interesting in the winter, as on the edges these plants flourish amazingly, and in midwinter are at their best in colour. The more hardy variety, S. purpurea, is about the best. These plants grow well in a compost of peat and sphagnum moss. All the plants enumerated can be grown in the Southern Counties, and all are grown here.

TREES AND SHRUBS.

CURRENT WORK IN THE SHRUBBERY.

SHRUBS that are planted on new ground in many cases grow away too freely and soon become a jungle of bad plants. As a general rule, the most common kinds grow the strongest, and will in all probability ruin the less vigorous choicer species and varieties. Tall or rapid-growing shrubs should be lifted occasionally or pruned back into shape, so that one plant does not spoil the view of its neighbour, and suitable places should be chosen for shrubs, having regard to exposure to winds or droughts. Very hardy plants should be allotted exposed positions, and those of a more tender character given the warmer situations. Many shrubs can be propagated by easy methods, so that, having got a stock, one need never be without small plants to replace those specimens which have become too large for their positions.

Old, worn-out borders are very much improved by good mulchings of manure when they cannot be re-arranged. Lilacs and most other shrubs are quite rejuvenated by a good manurial dressing, and this also assists the bulbs which are usually planted in shrubberies. Cow-manure has proved to be far the best, and if it can be given twice a year so much the better.

Leonardslee Gardens. W. A. COOK.

COTONEASTER ROTUNDIFOLIA.

THIS species possesses an advantage over the majority of sorts insomuch that its fruits are retained for a much longer period. As a rule, birds are very fond of the fruits of Cotoneasters, and they are taken soon after they ripen; but for some reason or other they fight shy of the berries of the species under notice, and it not infrequently happens that the fruits are carried until February or March. It is one of the Himalayan kinds, and forms a rather loose, spreading bush 4 feet high. Its leaves are rounded and Box-like, and are carried well on into the winter. The flowers are white and moderately conspicuous, but the great attraction lies in the rich red berries, which are borne with great freedom all over the plants. Being of easy culture, it might well be used for extensive breaks in a park or on the border of a plantation, in addition to being valuable for the garden proper. Seeds germinate freely, but plants propagated from cuttings commence fruiting more quickly. Cuttings should be taken during July or August and inserted in pots or in a bed of sandy soil in a propagating-house. They root quickly, and after two years in nursery quarters form plants large enough for permanent planting. Branches of C. rotundifolia are excellent for house decoration. D.

THE SAME WALL IN NOVEMBER, 1910.

GARDENING FOR BEGINNERS.

HOW TO PLANT WALL TREES AND HARDY CLIMBERS.

GARDEN WORK WEEK BY WEEK.

THE FLOWER GARDEN.—Herbaceous Pæonies are very charming in the flower garden. They thrive best in partial shade and in a naturally moist soil. In many gardens there are borders suitable for these plants. The border which is partially shaded from bright sunshine at midsummer is just the one in which to

1.—A POT-GROWN CLIMBER READY FOR PLANTING OUT.

grow these Pæonies. Make the rooting medium a substantial one; that is, deeply trench the soil, and if it is poor in quality add rotted manure freely. Put in strong but young plants, and be prepared to wait a year or two before they produce an abundance of flowers; but even the season after planting, if the specimens are good ones, they will bear a few nice blooms. When well established a bed of Pæony plants will look extremely well and form a striking feature in the garden. They may be had in colours varying from white, salmon and flesh colour to yellow. Pæonies may be planted at once if the soil is in good condition and the weather open. Climbers must also be planted, when the weather permits, in beds near fences, walls, arbours and arches, and to train on pergolas. In north aspects Ivies, Honeysuckles and Bridgesia are sure to thrive. Pyracantha Lalandi (the Fire Thorn) is also a fine plant for walls and low fences. Clematises, Jasminums, Passiflora cærulea, Bignonias and the favourite Ampelopsis should also be planted. Too often we find that climbing plants fail to make satisfactory progress after they are planted; good specimens may be put in, but they do not thrive. This unsatisfactory state of the plants is generally the result of bad preparation of the soil in the first place. Treat the plants generously and they will grow freely.

Vegetable Garden.—The winter greens must be kept quite clean; weeds will not give much trouble at the present time, but decaying vegetable leaves will. Immediately after a frost the yellow, decaying leaves will begin to smell offensively, and if left on the ground until another frost comes, matters in this respect will become worse. Gather up the leaves and either bury them deeply or smother with other rubbish and burn them in a garden. Early Broccoli must be protected from frosts; even the bending down of two or three leaves over the opening flowers will prevent frosts seriously injuring them. Celery, too, must be protected. The Celery crop is in hand for a long time, and after so much labour has been expended it is a pity to allow frost to spoil the produce. When rain, snow or sleet falls on the bare plants their inner stalks get very wet, and if frost follows immediately much damage is done. The chief point is to cover the tops with straw or boards, duly fixed.

Fruit Garden.—Recently planted Strawberries must be carefully examined now and a mulch of short littery manure put on. If the plants are at all loose in the soil, tread the latter down around them before the manure mulch is put on. Strawberries in pots for forcing purposes should be placed in their winter quarters without delay. Frost will not seriously injure them if the pots are well packed in dry leaves or in ashes and the crowns covered with a few mats or some dry litter or Fern when the weather is very severe.

Greenhouse and Frames.—Arum Lilies are very useful plants at this season; but it is advisable to grow them in the warmest part of the greenhouse in order to get the flowers well open and pure white in colour. A very low greenhouse temperature would cause many leaves to turn yellow and the flowers to be short in stem and not freely developed. Forced Lily of the Valley should be carefully treated when first brought out of the forcing-frame. The exposure must be gradual both to full light and air. Cold draughts would cause both flowers and leaves to droop, so that it will be wise to confine the plants to a cosy corner of the house for a time. Avoid also sudden exposure to sunshine. Seedlings in frames must be closely watched; do not give any more water than is absolutely necessary. Seedlings of hardy plants must be exposed to the air freely in fine weather. A. A.

PLANTING WALL SHRUBS AND HARDY CLIMBERS.

WHEN a new house and garden are acquired, or when a plain and uninteresting house and garden need beautifying, the value of climbing shrubs becomes apparent. It is then that bare walls and fences are beautified and the environment of the home made as attractive as possible by the living adornments. What more delightful subjects can one find than the Vitis or Vine and the beautiful Ampelopsis or Virginian Creeper in variety during the autumn months? These two subjects are managed and controlled with the greatest ease.

Many growers may have wondered why they did not succeed with the climbing plants they took in hand. Good subjects may have been planted; but the preparation of the soil and the aspect in which they are planted have a very considerable bearing on the ultimate result. When planting wall shrubs and climbers near to a recently constructed building, how prone some persons are to get the planting done quickly. As a rule, the builder leaves little soil round about the house that is of any use, so that when a small hole is made within a few inches of the brickwork and the roots of the plant are crammed into this, the hole refilled and the soil (!) filled in and made firm, what chance has such a specimen of doing well? I do not say this is the practice observed by all, but there is a considerable element of truth in it, especially among those who wish to get the work done quickly and the surroundings of the house and garden to look tidy. The soil in which these subjects are to be planted must be properly prepared. Where there is a paucity of really good soil, additional supplies must be acquired, and the beds and borders where individual specimens are to be planted should be trenched, incorporating at the same time a liberal quantity of well-rotted animal manure. In gardens where the soil is of a normal kind—neither too light nor too heavy—well-rotted horse-manure may be added with advantage. Should the garden soil be of a light and dry nature, incorporate a heavy dressing of cow-manure. Observing the same rule, soils of a heavy and retentive character should have leaf-mould, peat and horse-manure applied to lighten them. Generally speaking, most of the hardy wall shrubs and climbers may be planted successfully between November and March. Planting is best done when the soil is not overmoist. A fairly friable condition of the soil makes the work of planting easier and much more satisfactory than when it is sticky and pasty. It may be news to some readers that these plants are often sent out in pots by the nurseryman, although, of course, there are many instances where this practice is ignored. Climbers delivered in pots may be planted at almost any season when the soil is suitable. They have the great advantage also of keeping the roots intact. Any roots that may be damaged in the

2.—METHOD OF PLANTING A CLIMBER AGAINST A WALL OR FENCE.

process of lifting from the nursery bed, or that get injured in course of transit to the purchaser, should be carefully cut with a sharp knife, removing the injured portions. For the guidance of the inexperienced, in Fig. 1 a specimen deciduous climbing plant, an Ampelopsis, just as it is delivered by the nurseryman, is shown. Such a plant is capable of covering a considerable wall space if it is planted carefully and receives, soon after it has settled down, the support of a few shreds and nails until the shoots begin to grow in the late spring or early summer. Sometimes the pot is rather difficult to remove from the ball of soil and roots which it contains; but rather than risk damaging the roots in an endeavour to remove it from any plant, it is better to break the pot, which may be easily done by a somewhat sharp tap with a trowel or hammer. In anticipation of the planting, holes should be prepared for the reception of the plants, so that the roots may be spread out so soon as the plant is adjusted in position. It is a fatal mistake to have the roots cribbed and confined in small holes, as the plants cannot possibly do themselves or the grower justice.

Fig. 2 represents the method of planting the Japanese Quince, known to so many gardeners under the name of Pyrus or Cydonia japonica. It is a well-known species, of which there are several very beautiful varieties. It is a hardy deciduous plant, and succeeds in many positions on walls and in isolated spots in the garden. A careful scrutiny of the illustration reveals the fact that a good hole has been made for its reception and the roots spread out so that they may begin to draw upon the resources of the soil forthwith. When planting see that the earlier soil-mark is just slightly embedded. Such a specimen cannot fail to give the reader a good idea of the possibilities of these plants when properly adjusted in position.

The plant illustrated in Fig. 2 is portrayed in Fig. 3 with the operation of planting completed. Note the soil filled in the hole, which has been trodden in to make it quite firm, and the surface soil neatly finished off as a finale. A word of caution is necessary here. Many persons proceed to secure their plants with shreds and nails so soon as the planting is completed. This is quite a mistake. A few days at least should intervene between the planting and the securing and adjustment of the branching growths. Time for the soil to settle round about the roots must be allowed. When the soil has settled and the shoots are adjusted, secure them in the manner indicated in Fig. 3. In this picture the method of nailing wall plants is very clearly depicted. The illustration represents a portion of the Japanese Quince shown in Fig. 2.

Climbers for house walls are many and varied. Roses such as Gloire de Dijon, Reine Marie Henriette and Cheshunt Hybrid do very well. Clematis montana is a lovely plant for a red-brick building, its creamy white blossoms being most effective in the spring. Later on the beautiful lavender blue of Clematis lanuginosa var. Lady Caroline Neville is charming in a similar situation.

Other subjects that may be recommended for beginners are the beautiful Fire Thorn (Cratægus Pyracantha), Ivies in variety, Cotoneasters, Pyrus (Cydonia), Wistaria, Passion Flower, Philadelphuses, Ribes, Viburnums, Magnolias, Berberises, Cistuses, Jasminums, Smilax, the Vitis and Loniceras. Thanks are due to Messrs. William Cutbush and Sons, Highgate and Barnet, for the opportunity of photographing the subjects herein described. D. B. CRANE.

3.—AFTER PLANTING THE WOOD IS SECURED TO THE WALL BY MEANS OF SHREDS AND NAILS.

ASPARAGUS IN CLAYEY BEDS.

UNDOUBTEDLY it is more difficult to manage Asparagus plants in a clayey rooting medium than in one more open and porous, and which consequently dries up sooner. The prevailing idea of the inexperienced cultivator is to load each bed with a very heavy coating of strong, almost strawless manure in the early part of the winter when the first frosts come. Now, if the plants are growing in a clayey soil, such treatment would assuredly chill the roots. Sunshine cannot have much effect at this season through a thick coating of manure. So by putting on such a layer of manure the roots are kept in a cold medium, and one that rarely gets dry before the month of March arrives. The best plan is to take out the soil from the alleys and to spread it evenly over the surface of the bed, not breaking it up too finely. The deepening of the alley will ensure more drainage of the beds on each side, and this is a point in favour. Then all that is required is a rather thin layer of very littery manure, not pressed down too firmly, but spread evenly all over the surface of the beds. The sun's rays will penetrate or warm the covering, and the plants under it will benefit. B.

VIOLETS IN FRAMES.

LEAF-SPOT is very troublesome in some districts, and if it be neglected the whole of the plants will be ruined. Every leaf affected must be gathered and burned forthwith. The remainder of the plants should be syringed with the following solution: Dissolve 1oz. of sulphide of potassium in 2½ gallons of rain-water, and when thoroughly dissolved, as the rock sulphur will be in two hours' time, syringe on the liquid in a fine spray, taking care to thoroughly moisten all parts of the leaves. If the pure sulphide of potassium is procured, it will not injure the youngest Violet leaf if applied at the strength recommended. Leaf-spot is chiefly caused by excessive atmospheric moisture or fogs. To avoid the leaf-spot the cultivator must keep the inside of the frame dry, but he must also admit air in abundance when the weather is fine. Only close the lights in foggy, frosty or rainy weather. Give necessary water early in the day, and keep the surface soil open and clean. No time must be lost in dealing with the leaf-spot should it make its appearance. SHAMROCK.

THE TOWN GARDEN.

THE AMATEUR'S GREENHOUSE.—Of many of these the well-worn theatrical phrase "crowded houses nightly"—and, of course, "daily"—might be written, for in unending variety most amateurs who possess a greenhouse find infinite pleasure. The one half of the latter is vested in the giving to, the other half in receiving from, friends, gifts, cuttings or plants, suitable and unsuitable. It all depends on whether the proffered cutting is something "he hasn't got" or the reverse. That, indeed, is the only condition to the bargain, exchange, or whatever it be. Whether the plant is of a tropical nature or nearly or quite hardy matters but little; our friend will make room for it somewhere, provided he can only open the door and first get inside himself. "I can get plenty of heat!" he often exclaims—he boasts of the number of degrees he registers after occasions of severe frost as he proceeds to business in the morning train—wholly ignoring in the enthusiasm of his inexperience that this stewing of plants in their own juices, so to speak, is entirely wrong, something to avoid, something to be discouraged by every means in his power.

THE HYGIENIC SIDE.—That this concerns the vegetable as well as the animal kingdom none will deny, and as a result the crowded plant in a stuffy, warm, ill-ventilated greenhouse is as completely exposed to all the ills that be as the man who is constantly moving in a vitiated atmosphere. The plant becomes weak, drawn, assumes a sickly pallor—the pallor of the consumptive—for, indeed, that plant is already in a deathly "decline." Hence these notes are not written to deny the amateur with a greenhouse the infinite pleasure arising out of the interchange of plants with his friends; but to show him that crowding or overcrowding is wrong, a source of common danger, the precursor of many of the ills to which plants as well as human beings are heir. The stuffy and warm, ill-ventilated house will quickly give you green fly galore; the parched, overheated structure will provide you with teeming thousands of red spider, a blood-sucking pest revelling in arid places. Over and against this insidious foe of the gardener might well be written the word "unclean," since plenty of clean cold water is fatal to its existence. Indeed, it may almost be blotted out with this alone, provided always, of course, that the conditions giving rise thereto have been abandoned.

WHY ENCOURAGE OVERCROWDING?—Having thus given in plain terms the why and the wherefore of things, the question naturally arises, Why encourage overcrowding at all in greenhouses? Why not rather indulge in fewer plants and grow these to perfection, or as near as possible thereto? To do this the amateur must steel his heart, and possibly also his inclinations, against that miscellaneous host of plants beloved of so many amateurs. He must, in short, become a specialist, if only in a very small way; or, instead of this, he might adopt the alternative plan of fewer plants, that greatly reduced number whose requirements are less, and which, because of the healthy, congenial conditions prevailing—greater air space being one—provide a more liberal floral display in return. Such a greenhouse might be given over to Carnations of the perpetual class, to Tea Roses, to Zonal Pelargoniums, or indeed to all three, for these are certainly manageable all under one roof. In a three-crop arrangement like this the plants

should take "sides," *i.e.*, they should not be mixed together indiscriminately. Here, then, is the error and the remedy.

THE BETTER WAY.—To tell an amateur that he must clear out two-thirds of the contents of his greenhouse to permit him to grow and see to advantage the remaining third may fill him at once with alarm; for is not there a little history attaching to many of his plants, and did not old friend so-and-so give him this or that? That the plant has never flowered and is not understood, that it is dying of cold or something else, is not thought of for a moment. But with the sentiment brushed aside and the work begun as suggested, such a greenhouse becomes a sort of household word in the district and its owner ranks high among his fellows.

E. H. JENKINS.

TRIALS OF RUNNER BEANS.

THE immense value of this section of edible vegetables has never, to me, been more fully demonstrated than was the case when, on Messrs. Sutton and Sons' seed farm at Reading just recently, I saw their season's trial of practically every known variety in commerce, all growing on tall stakes and treated quite equally so far as their sowing and soil culture were concerned. While varieties seemed to be innumerable, the total length of these staked rows could hardly have been less than a mile. There was, in looking through this collection, the great advantage of having all varieties in the special trial grouped, so that Scarlet Runners, White Runners, Painted Lady Runners, smooth ones and even decorative Runners had their own sections. Beyond this trial there were elsewhere huge blocks of various specially fine varieties, the same as many seen in the proper trial, but chiefly of the scarlet-flowered section, these being much the more in demand and most widely grown. In the general trial of 183 separate rows the firm's own selections were Best of All, Prizewinner and A1. These have very long, straight pods ranging from 10 inches to 12 inches in length, some even exceeding that, while they remain tender and crisp even then. These, too, are really wonderful croppers, the pods hanging all over the bines in handfuls. Sutton's Scarlet is a selection that for length of pod comes intermediate between Best of All and the old Scarlet Runner, and is, indeed, a wonderful cropper. It is a first-class market variety.

Then, of other well-known selections are Scarlet Emperor, Hackwood's Success, Webb's or Bunyard's Exhibition and Eckford's Mammoth, all fine stocks; while the old Ne Plus Ultra shows how much the more recent selections have out-distanced what was once a premier variety. Both the old Scarlet and the old Painted Lady show this wonderful advance all the more. Of this latter form, by crossing a white-flowered variety with a scarlet a bicolor-flowered variety has been obtained, which is a great improvement on the Painted Lady of earlier days. Because Runner Beans are now so much in evidence at summer and autumn vegetable exhibitions, the demand for the more improved long-podded varieties is very great, and can hardly be kept pace with. Apart from their value in competitions, they are so wonderfully productive, the pods remaining tender to the fullest lengths, so that for ordinary uses these varieties are by far the most profitable. Among others of the white-flowered section the new White Emperor was seen, but it does not seem yet to have been sufficiently selected. These pod-bearing plants take several years of constant oversight before they are fit for commerce.

The smooth-podded section, including Tender and True, Princess of Wales, Epicure, the stringless Earliest of All and several others, were giving surprising crops. The firm, however, want to develop the stringless section much more, and to that end are making crosses and selections in these in anticipation of securing a stringless strain ultimately which shall displace all others of this race. That such is to be their aim affords evidence that in these Runner Beans there is yet no finality. Those who specially like the smooth-fleshed Kidney Beans, allied to the particular flavour found in them, should grow some of Tender and True, Princess of Wales and Epicure. When the pods of the two latter are gathered very young and cooked whole they form a most delectable dish. The best of the Butter Beans is certainly the golden Mont d'Or, the pods of which would be widely consumed were their value when cooked better known. A particularly pretty effect in a decorative sense is obtained by growing intermingled this golden Mont d'Or, the Scarlet-flaked and the Purple-podded forms; and for floral beauty as an annual climber charming effects are obtained from the Dolichos purple-flowered species, as it is a most profuse bloomer all the summer and autumn. Its proper place is in the garden. A. D.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Pampas Grass (*Hayward's Heath*). — The scarcity and smallness of the spikes is without doubt due to the unfavourable weather conditions of the past two seasons. It is rather late for cutting the spikes to preserve all their freshness and beauty for decorative work, so you had better do so without delay. Avoid unduly drying them at first; rather let this be done gradually. Burning the old stools of these is not to be recommended generally, though it is on occasion resorted to when the plants have become full of rubbish. The saw-edged character of the leaf margins cut like a knife if the plants are not handled with gloves, hence burning is an easy way to avoid this. When done, March is a good time, so that the foliage acts as a good protection during the winter. Dig a trench about the plants in spring and add good and fairly rich soil to improve the conditions of the plants.

Fragrant plants (*Le Jardin*).—A very considerable number of plants are possessed of either fragrant flowers or leaves. Some are shrubs, some of a bulbous-rooted character, and so forth. For example, the Sweet Peas, Mignonette, Sweet Sultans, Wallflowers and Sweet Scabious are good among plants of annual duration only; while Mock Orange, Brooms and Thorns, Honeysuckle and Sweet Briar, Gorse, Lilac, Lavender, Southernwood, Rosemary, Daphnes and Tree Lupine are notable among shrubs. Of herbaceous subjects, Monarda didyma, Rockets, Auriculas, Musk, Cowslips, Thyme, Phlox, Hyacinth, Muscaris, Tulips, Pæonies, Violets, a large number of Lilies, Lily of the Valley and Meadow-sweet, among many, all possess fragrance of a more or less distinct or pronounced type. Then there is the aromatic fragrance of such things as Wormwood, Tansy and Camomile, apart from which such Roses as General Jacqueminot, La France and Gloire de Dijon and many Teas are worthy of inclusion in any garden where fragrant flowers are desired. Sweet-scented or Lemon Verbena and many of the Cape Pelargoniums have scented foliage, though these are not hardy.

Treatment for Statice (*Constant Reader*).—The Statices are of annual duration only, and if an early flowering is desired the seeds may be sown in pots or boxes in February and transplanted in April, or they may be sown in the open ground in March.

Caterpillar to name (*Miss C. H.*).—The caterpillar is that of the small moth called the "garden carpet," known scientifically as Larentia fluctuata. It feeds on Nasturtium, Cabbage and other garden plants, and there are two broods in a year, the moths appearing in April and again in August. It is rarely sufficiently abundant to be accounted a pest, though, of course, it does some damage.

Flower to name and treatment of same (*A. G. N.*).—The flower is Helipterum roseum, but is also known as Acroclinium and Rhodanthe, and by the latter name is most frequently found in seedsmen's lists. The plant is grown freely in pots for market, and is of annual duration only. October is a good time for sowing the seeds, and for the winter the plants may be grown in a cold frame. It is nearly hardy. The plants require but little moisture in the young state, and should be given plenty of air. In spring seeds may be sown in warm spots in the open.

Treatment for croquet lawn (*A. H. Rydon*).—We suspect that your croquet lawn is made on poor soil. Probably, as you suggest, in the levelling which took place the good soil was buried and the poor brought to the surface. We should advise you to take up all the turf and give a dressing of well-rotted manure and good soil to the ground beneath. Fork it in, tread it firmly and relay the turf as far as it will go, making up the deficiency with good new turf. Instead of dressing with chemical manure in future, give a good dressing of well-decayed manure in winter and a dressing of sea sand, if procurable, in spring. Should the grass keep mossy, give a good dressing of soil instead of manure in the winter of 1911–12. In dry weather you may water the grass well once or twice a week, or more frequently if you so wish.

Small Lily bulbs for opinion (*H. A. H.*).—The enclosed Lily bulbs are small offsets of Lilium longiflorum, which will need to be grown on carefully for three years before they attain flowering size. They may be planted out in some sandy soil in an open border, or, if you prefer it, they can be grown in pots. A mixture of loam, peat and sand will suit them, and seven or eight bulbs may be put into a pot 6 inches in diameter. The pots must be well drained and the bulbs planted at such a depth that there is half an inch of soil above the extreme top of the bulb. During the winter these must be kept in a cold frame, giving enough water to keep the soil moist, for at no time should Lily bulbs be parched up. As good flowering bulbs of L. longiflorum can be purchased at a cheap rate, you will scarcely find such poor ones worth the trouble of growing on.

Tropæolum tuberosum failing (*A. W.*).—This is a somewhat exacting plant from Peru, and should be grown in light rich soil in the most southerly position at your command. If you are trying the plant as a permanent subject in the open, it should be taken up when frost comes, the tubers dried and replanted in March. It might also assist if you started some of them a little time in advance. The soil should be leaf-mould, peat and loam in equal parts, adding about one-sixth part of well-decayed manure and some old mortar rubbish if available. In very rich soils the plant grows too rampant to flower, hence we advise that you avoid this. This sunless season has been quite opposed to its flowering. If you have a greenhouse wall facing south where much heat would be reflected, to the benefit of the subject, plant it there or in the warmest position you can command.

Bog garden (*X. Y. Z.*).—The chief thing to bear in mind is that the water—in your case the overflow from a pond—should enter at the highest point of the proposed bog garden. The sketch you submit shows the water entering at an apparently lower level, though it may not be so in point of fact. In addition to this, saturation or semi-saturation of the whole area is important, with a soil provision suitable to the plants. As you have given us practically no particulars as to the area of the site or the character of the subsoil, its water-holding capacity or otherwise, we think you had better write us again on these points. Please also give some idea as to the nature of the surroundings. A rock garden only removed from the bog garden by a pathway of ordinary width is a little unusual, and, unless the bog-bed is intended for dwarf plants, might prove not a little incongruous also.

ROSE GARDEN.

Lime for sour soil (*E. S. L.*).—Yes; you would find the fine refuse from the local limestone quarries very beneficial for your soil if applied in winter. A dressing of about 8oz. per square yard would suffice for one application, and this should obviate the necessity of any further liming this year. The Roses you name would do well as standards in a cold district, excepting, perhaps, Mme. Abel Chatenay. We have found that this Rose rather suffers from winter frosts. Some good semi-climbing Roses of similar habit to Grüss an Teplitz would be Fellenberg, Sarah Bernhardt, Trier, Alister Stella Gray, Longworth Rambler, Aimée Vibert, Lina Schmidt Michel, Johanna Sebus, Lady Waterlow, Mme. Wagram and Rosette de la Legion d'Honneur.

About Roses (*A. C. W.*).—We can endorse all you say in praise of Blairi No. 2. This grand old variety, introduced more than sixty years ago, is not even known by many present-day Rose-growers. If this were more often planted as an arch or wall Rose, instead of some of the small-flowered ramblers, it would give far more satisfaction. Mme. Chauvry is, indeed, a most beautiful climbing Rose, and we prefer it even to such a Rose as Mme. Moreau, as it is not so much addicted to mildew, but we should not say it is more constant than Gloire de Dijon, for, take it altogether, there are few Roses better than our old friend "the Gloire." Climbing Liberty is likely to prove a most useful addition to our rich-coloured climbers. Although it will never be so effective as Grüss an Teplitz, Sarah Bernhardt is really splendid, with huge, broad petals of the richest scarlet-crimson colour, and the best of it is that it does not burn. Then there is Gloire de Margottin, another vivid colour; also Lina Schmidt Michel, with Mme. Abel Chatenay-like, semi-double blooms of wondrous beauty. We agree with you that the better quality climbers are far superior to some of the ramblers, and, even though they are not so rampant in growth, they give a more continuous supply of their lovely flowers.

Gas-lime for Roses (*B. S. J.*).—This would be beneficial to established Roses if it happens to be old. Fresh gas-lime needs to be used very cautiously, and we should not advise it for Roses. If it has laid out for about twelve months, then you could give your Roses a dressing in December at the rate of 2oz. to 4oz. per square yard. Basic slag would be more valuable to you. Give the beds a dressing of this now at the rate of 6oz. to a square yard and well hoe it in the soil.

Hybrid Perpetuals and Hybrid Teas for exhibition (*B. W. A.*).—Avoiding the sorts you have, we can recommend the following: A. K. Williams, C. Testout, Dean Hole, Florence Pemberton, J. B. Clark, Killarney, Lady Ashtown, Lyon Rose, Melanie Soupert, Mrs. Sharman Crawford, Mrs. T. Roosevelt, Suzanne M. Rodocanachi, Dr. O'Donel Browne, Earl of Warwick, G. C. Waud, Gladys Harkness, Mrs. Wakefield Christie Miller, Helen Keller, Joseph Hill, Königin Carola, Lady Ursula, Lady Alice Stanley, Laurent Carle, Lohengrin, Margaret, M. H. Walsh, Mrs. E. J. Holland, Mrs. J. Bateman, Princesse M. Mertchersky and Richmond. Six good climbers for north and east walls would be Conrad F. Meyer, Ards Rover, Bouquet d'Or, Mme. Alfred Carriere, Ruby Queen and Climbing Caroline Testout.

Rose Le Progres (*Non*). — This beautiful Rose is a Hybrid Tea, and it is so classed by its raisers, Messrs. Pernet-Ducher. Strictly speaking, the Lyon Rose is a pernetiana Rose. This name was given to the tribe, of which Soleil d'Or was the first variety, by its raiser, M. Pernet-Ducher, and was so called because it is a distinct break in Roses, emanating from a Hybrid Perpetual crossed with the old-fashioned Briar Rose Persian Yellow. The Lyon Rose was raised by crossing the Hybrid Tea Melanie Soupert with Soleil d'Or, and as it shows a deal of the latter Rose in its constitution, the raiser has classed it with his pernetiana Roses. Other sorts of this tribe are Rayon d'Or, Beauté de Lyon, Viscountess Enfield, Arthur R. Goodwin, Entente Cordiale, Les Rosati, Louis Barbier, Mme. Ruan and Rodophile Gravereaux, all of them very beautiful varieties. Gottfried Keller is quite a different Rose. It is really a Hybrid Briar, with a perpetual-flowering habit.

Transplanting Roses (*H. A. F.*).—We are pleased to know you have been so successful with your Roses this season, and that you have found THE GARDEN helpful to you. Your proposed method of treating the soil is very good. If with the second spit you incorporate some basic slag at the rate of 6oz. to a square yard in addition to the manure, we think you will have reason to be glad you did so. Do not allow the grassy part of the turfy loam to come near the roots. Rather put this in the lower soil. Just make up a nice compost as suggested, and give each plant a good shovelful when planting. After giving the soil a good treading about the roots, and before you finally fill up the holes, give each tree a small handful of bone-meal or quarter-inch bones. You are wise in going in for those sorts that do well with you, and all the kinds you name are grand. You should add Laurent Carle, Maurice de Luze, Pharisaer, Prince de Bulgarie, General MacArthur, Joseph Hill, Mrs. E. G. Hill, Mme. Leon Pain, Edu Meyer and Earl of Warwick.

FRUIT GARDEN.

Training Currant trees (*Constant Reader*).—The Currant is frequently grown on the cordon system, though it is doubtful if in a small way it would prove as profitable as bush-grown examples. The trees, of course, may be wall-trained without rigidly adhering to the cordon system, and in this way fewer trees would be required. We think this latter the better way for you in the circumstances. A wall of the height and aspect named would, we think, be more suited to Morello Cherries. Currants of all kinds and Gooseberries should be obtained, properly prepared, from the nurseries, otherwise sucker growth will most probably be prevalent and troublesome.

Fruit for profit (*B. W. A.*).—Damson trees planted fairly close together form a useful and efficient wind shelter. If you prefer an evergreen shelter, Thuya Lobbii will answer the purpose if planted fairly close together. The Gooseberry you mention is as good as any to grow for profit. The same remarks apply to Raspberries. To Strawberries you might add Laxton's Cropper. It is the heaviest cropping variety we know. The following are good Apples to plant for profit: Worcester Pearmain, James Grieve, Ben's Red, King of the Pippins, Cox's Orange Pippin, Christmas Pearmain, Newton Wonder, Grenadier, Lord Derby, Bramley's Seedling, Lane's Prince Albert and Blenheim Orange. The Loganberry is now largely grown for sale, and is said to be very profitable; so also are many of the Brambles or Blackberries. Two good sorts of the latter are Rubus laciniatus and Wilson Junior.

Grapes gone wrong (*Constant Reader*).—Amateurs engaged in Grape-growing must bear in mind that it is quite impossible to grow good Grapes unless the Vine has strong and healthy foliage from the time it commences to grow in spring until the Grapes are ripe in autumn, and it is almost as impossible to fail to grow Grapes satisfactorily when these conditions are fulfilled. The cause of your Grapes going wrong is an attack of shanking, and this is brought about by the shrivelled up and almost dead condition of the Vine foliage. The cause of the foliage being in this pitiable condition is due, we think, to poor and weak root action in the Vines and to too little ventilation. We cannot find traces of red spider. Give the Vine a new border this autumn and ventilate more freely next summer, and we have no doubt that better results will follow after. If you do not know how to go about making a new border, we will help you if you will give us full particulars of the size and situation of the present border.

Grape Black Prince (*Mrs. Allen*).—This variety of Grape used to be fairly common thirty or forty years ago; but what with the long core, thick skin, large seeds and small berries there is little left to be consumed, and the variety has in consequence long been discarded.

Melon seeds growing into leaf inside the fruit (*W. H. Cee, Hampshire*).—Your experience in the above is rather uncommon, but not at all unique. We have had the same experience ourselves, and the same has also been noted in our columns before. It is difficult to account for the phenomenon. We think it is due to the earlier ripening of some of the seeds, this causing them to start prematurely into growth encouraged by the heat of the house in which the fruit is growing. It is well known that growth cannot take place in the absence of air, therefore air by some means must have penetrated into the fruit, possibly through a crack there may have been in the skin or through absorption in some other way. Perhaps some reader of THE GARDEN can throw further light on the subject. It is an interesting one.

Raspberry The Devon (*Enquirer*).—This is a variety little known, and quoted only to a limited extent in catalogues. We have not grown it, and therefore cannot express an opinion on its merits. Those of our readers who have, and who may notice this enquiry, will oblige the Editor by giving their estimate of it. Superlative is by far the finest Raspberry of the present day, according to our experience.

Varieties of Peaches and Nectarines to grow on a south wall (*C. C.*).—Nectarines: Lord Napier, early, one of the best in every way; Pineapple, midseason, perhaps the richest-flavoured of all Nectarines; Pitmaston Orange, a very handsome variety, of delicious flavour; Humboldt, one of the richest-coloured and good-flavoured sorts; and Elruge, one of the oldest and best, indispensable. The above Nectarines succeed as well out of doors as they do under glass. Peaches: Amsden June, one of the earliest to ripen, very sweet-flavoured; Duchess of Cornwall, excellent for forcing early, does well out of doors also; Peregrine, one of the best of all Peaches, indispensable; Bellegarde, splendid grower and cropper, flavour excellent; and Royal George, still one of the best in all respects. The above are suitable for culture on walls outside or under glass.

MISCELLANEOUS.

Stone for border (*E. Stedman*).—Any moderately soft stone, such as the varying types of sandstone or limestone, would do quite well for the purpose, and we imagine one or other of these would be available within a few miles of you. We do not know your requirements in this matter, or we might help you further. If only a small quantity is required, you might apply to Messrs. Robert Veitch and Son, Exeter, who would doubtless supply you with what you want. The old white Anemone is A. japonica alba, sometimes called Honorine Joubert. It is a single-flowered variety. There are several semi-double whites, however, such as Whirlwind, Silver Cup, Lord Ardilaun, Lady Ardilaun and Collarette, the last-named being one of the finest of the lot. We still retain a great fondness for the original, and well established in rich and deep loamy soil it is a fine plant indeed.

Using carbon bisulphide (*Bramhall*).—Carbon bisulphide may be used at the rate of a quarter of an ounce to the square yard with good effect, or this amount may be exceeded without harmful effect to the roots of plants so long as the liquid is not brought into actual contact with the roots. The vapour is very destructive to the animal life in the soil, but has little effect upon plant life at the strength mentioned. It may be used at any time, but most effectively when the animals it is desired to kill are active. Its effect passes off rather quickly, and nothing grown in the treated soil will be flavoured; indeed, it may, indirectly, have a good effect in stimulating growth. The hole made should be covered as soon as possible after the material is poured in. It must be remembered that carbon bisulphide is very poisonous and very inflammable: it is even dangerous to smoke when using it, though, on account of its evil odour, the temptation to do so is very great.

Roses and other flowers at exhibitions (*G. E. D.*).—As regards the Roses, if there is no rule or instructions barring the inclusion of Roses grown under glass in the schedule of the show, an exhibitor is perfectly justified in including them in a collection. Roses at the time of Rose shows are of far better quality, as a rule, when grown out of doors than they are when grown under glass. As regards perennial flowers at exhibitions, there exists a great deal of uncertainty as to the plants which may properly come under this category and which may not. The fault is more often due to the vague and non-specific framing of the schedule than to any other cause. The words in this class should specify *hardy* perennial plants. This would at once disqualify all plants which require protection from frost in winter. All plants which live for several years are termed perennials, but if the term "hardy" is added, as it should be in all these classes, the matter would be greatly simplified.

Cropping three acres of land (*T. H. S.*).—We fear you are far too sanguine in assuming that you will obtain all the vegetables you need, even under the best culture, from three acres of land Ten tons to 12 tons per acre is a heavy crop of Potatoes, and as you want, in old and new Potatoes, practically 30 tons annually, you would find pretty well all your ground absorbed by Potatoes alone. So far as relates to new Potatoes, by which you mean presumably very early ones, such as May Queen, Duke of York, Express, Early Puritan or Beauty of Hebron, the highest probable crop from any of those dug before fully grown would be 8 tons to the acre, hence the 4 tons of those needed would utilise fully half an acre of ground. Of course, those might be cleared by the end of July, and if the ground had been well manured you could follow those with white Turnips, Coleworts, Savoys, Spinach, Lettuces and Spring Cabbages. But, so far as the 25 tons of old or maincrop Potatoes were concerned, Up to Date, Factor, Table Talk and others, those could not be got up for storage through the winter safely until the end of September or into October, when it would be too late to follow with some other crop the same season. The rent of three acres, £20, seems excessive. We should have thought £15 ample. But your estimate for manure is far too low. Really you would need quite 25 tons per acre to give a fair vegetable dressing, and at the low cost of 5s. per ton that would amount to £18 15s., without adding anything for chemical manures. Seed Potatoes

would cost you from £7 to £8, and all other seeds would swallow up more than the estimated £20. You allow nothing for deep working or practically half-trenching the virgin soil to fit it to carry vegetable crops, especially such as you name, and the labour estimate is too low. Were the ground well prepared, manured and cropped, no doubt you would in a year or two get from it a fine return, but your estimates of cost and of crops must be materially increased in the one case and lessened in the other. Do not think of French gardening.

Vegetable Marrow leaves diseased (*N. S. R.*). The Marrows are attacked by a very common mildew, which attacks various plants, but not Roses. You need not fear the one passing to the other plant.

Potatoes in a Vine-house (*Guernsey*).—Yes in large portable boxes about 9 inches deep. They can be moved out to ripen in spring when the vinery becomes too hot and shady with foliage. Sutton's Harbinger is a suitable variety. Plant at the end of January. The seed should be sprouted first. The best manure to use is leaf-mould and rotten farmyard manure in equal quantities, say, a peck of each to a heaped-up barrow-load of good ordinary garden soil.

Cleaning weedy lawn (*W. S.*).—Assuming that your lawn is not so utterly foul with weeds that it will pay you to employ someone to extract all the larger or coarser ones, then it must be very bad, and you seem to have no course left but to fork over all the lawn, clean out all weeds and burn them, then have the ground well levelled and raked over, then sown thickly next April with fine lawn grass seed, well rolling it in. If you have most of the large weeds pulled out first, then give a dressing of lawn sand to kill the rest of the weeds. After that give a dressing of fine sifted soil to fill the holes made by extracting the large weeds, and with it plenty of soot or Native Guano. Failing those, then give in April a dressing of finely crushed sulphate of ammonia. Dressings of this nature will greatly stimulate the grass, and thus fill up the spaces before occupied by the weeds.

How to establish Bracken (*Glenmona*).—The best plan to establish the Bracken is to obtain plants, when dormant in the winter, from a heath or common where it grows thickly. A good mass of soil containing the roots must be dug up without breaking it, and this mass planted in a hole made for it and partly filled with peaty soil. It will then start growth in the spring and travel by means of its running roots in all directions. A spot should be chosen where it grows with comparatively small and stunted fronds, near the edge of a path, for instance, since it cannot be lifted effectively in the clump form where it grows large, as the long, brittle root-stocks are then probably several feet deep. Where it is checked the roots are near the surface, and a mass of the soil 1½ feet at least square and a foot deep is fairly sure to contain a number of buds on the roots and sufficient root to give them a start next season, but the mass of soil *must* be kept intact. Pot plants can be obtained from nurserymen, and be turned out into holes in the grass land filled with a compost of peaty soil, as stated. These would be quite safe to grow if obtained and planted out now.

Making a pond (*M. M. K.*).—If you intend to make a pond with concrete sides and bottom the size you mention, you ought to put the work into the hands of a professional builder, for some considerable strength will be necessary to hold the body of water you propose, and if you once get a leakage it will probably be an endless source of expense. You will require from 9 inches to 1 foot of concrete all over the bottom and sides, made with rough stones and best cement; then that will have to be faced with best cement and finely washed sand. You can, however, make a very good pond by puddling the bottom and sides with clay. This ought to be 9 inches thick, and it should be worked into a regular puddle to make sure that all is properly worked together and no air spaces left. After the clay has been well trodden it should be smoothed over with water and the back of a shovel, and the pond filled with water as soon as the clay appears to be set and before it becomes dry enough to crack. Large ponds are frequently more satisfactory treated in this way than cemented; for small ones, however, cement is, perhaps, better, but the work ought not to be done by inexperienced people, or it will probably turn out very unsatisfactory.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE last of the fortnightly meetings for the year 1910 was held on Tuesday, December 6. Greenhouse flowers, such as Begonias and late Chrysanthemums, were well represented, and Cypripediums were very numerous among the exhibits of Orchids. There was very little work, however, for the fruit and vegetable committee.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. C. T. Druery, E. A. Bowles, J. Walker, W. B. Cranfield, J. Douglas, T. W. Turner, J. Green, J. W. Barr, W. J. Bean, G. Reuthe, R. C. Notcutt, C. Blick, C. R. Fielder, J. F. McLeod, W. Bain, W. Howe, J. Jennings, H. J. Jones, H. J. Cutbush, C. Dixon, J. Hudson, J. T. Bennett-Poe, Charles E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, Charles E. Pearson, W. A. Bilney and R. W. Wallace.

Messrs. William Cutbush and Sons, Highgate, N., staged a capital assortment of plants and flowers, the latter including many excellent vases of Carnations, of which Beacon (scarlet), Frank Galsworthy (puce), Mrs. Burnett, Lady Elphinstone (a fine salmon pink), Glendale (striped), May Day, White Perfection, Edna (of a dark heliotrope shade) and Lady Miller were among the more imposing and beautiful. Lady C. Waring, a yellow-ground striped variety, was also charming. Plants of a decorative character in pots from the same firm included Dracæna Bruantii variegata, a splendid plant for rooms; Phœnix Rœbelinii, a most graceful plant; Erica gracilis, delightful in its warm tints at this season; Citrus sinensis (Otaheite Orange), in well-fruited examples; Erica gracilis nivalis; and well-fruited Skimmia japonica. These were among the best in an excellent exhibit. Silver Banksian medal.

Mr. L. R. Russell, Richmond, staged a table full of the hardiest of shrubs and evergreens, Ivies, Box, Aucuba vera, Elæagnus Simonii variegata, E. aurea marginata, Eurya latifolia variegata, Azara microphylla and Cupressus macrocarpa lutea being among the best. Hedera maderensis variegata and H. dentata variegata, both excellent in their way, were in fine condition. Silver Banksian medal.

Messrs. H. B. May and Sons, Edmonton, filled a table with flowering examples of Primula obconica, Begonia Gloire de Lorraine in its white and pink flowered varieties, white and scarlet Poinsettias, together with a choice assortment of Ferns, Palms and Crotons, making up a welcome group. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, displayed a showy avenue of flowering plants, a couple of tables loaded with well-grown examples conforming to this in effect. On the one hand appeared a host of the winter-flowering Begonias, Julius (salmon), Mrs. Heal, socotrana (a pink-flowered species and a parent of many), Ensign (scarlet) and Winter Cheer (a vivid and attractive shade of colour) being among the best. B. Mrs. Bedford and B. Agatha, both small-flowered types, were also shown in excellent form, as also was Jacobinia chrysostephana, whose flowers are of rich orange yellow tone. On the opposite table were arranged groups of Bouvardias with single and double flowered Chrysanthemums, the former of these including Mrs. W. Buckingham, pink, of good form; Swinbourne, pure white, excellent; Cannell's Crimson; and Elusive, carmine, all being good. Of doubles, Golden Age is of a supremely rich golden hue, an intense shade compelling admiration, a splendid late variety; Moneymaker, white; and White Bouquet were likewise notable. A group of Citrus japonica in variety, the plants being well fruited, was also shown. Silver Flora medal.

Mr. Frank Lilley, Guernsey, brought an interesting lot of single, thread and spidery flowered Chrysanthemums, the first-named group including Strawberry, a good bronze; Mensa, pure white; and Arcturus, crimson, with golden base to florets, which were among the best.

Messrs. William Wells and Co., Limited, Merstham, displayed a nice lot of Chrysanthemums in single, show and exhibition sorts, the first-named including Pink Felicity, Cannell's Crimson, Miss May Thorne (pink), Crimson Jewel (not a true single), Sandown Radiance and Caledonia. Mrs. Gilbert Drabble (white) and J. Cumberland were excellent among show varieties. Silver Banksian medal.

Messrs. T. Rochford and Sons, Broxbourne, brought many fine baskets of Begonias of the Gloire de Lorraine type, also Lily of the Valley and a capital collection of Crotons. In each case the examples were finely grown, the Crotons also being superbly coloured. Silver Flora medal.

The Misses Hopkins, Shepperton-on-Thames, had a collection of alpine plants in boxes, chiefly Saxifragas and Sedums.

Messrs. Aston W. Gardener and Co., Holborn, showed a few Cacti from Jamaica.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq (chairman), and Messrs. James O'Brien, H. Little, W. Thompson, F. J. Hanbury, A. A. McBean, C. H. Curtis, W. Cobb, J. Charlesworth, J. Cypher, W. H. Hatcher, W. P. Bound, H. G. Alexander, A. Dye, W. H. White, Gurney Wilson, J. Wilson Potter, W. Bolton, C. Cookson, C. J. Lucas, H. J. Veitch and Sir Jeremiah Colman, Bart.

Undoubtedly the finest display of Orchids on this occasion was staged by Messrs. Charlesworth and Co., Hayward's Heath. The centre of this group was made up of the blue-flowering Vanda cærulea, intermingled with creamy white spikes of Odontoglossums. The harmony of this colour-scheme was greatly admired. Some very choice Odontoglossums were shown by the same exhibitors, notably ardentissimum and Solon. Silver-gilt Flora medal.

A group of Zygopetalum Mackayii was staged by Mr. A. R. Allan, gardener to the Right Hon. Lord Hillingdon, Hillingdon Court, Uxbridge. Over thirty plants were shown, each one carrying one or more strong and well-flowered spikes. Silver Banksian medal.

A choice group of Orchids was sent by S. Larkin, Esq. Ridgeways, Haslemere (gardener, Mr. H. Hall). The group was composed mainly of fine forms of Cypripediums. Silver Banksian medal.

A similar award was made to Messrs. Armstrong and Brown, Tunbridge Wells, who staged an admirable lot of Cypripediums. This collection consisted of hybrids of a most promising type.

Messrs. Sander and Sons, St. Albans, had a group of Orchids remarkable for their quality. Among the Cypripediums we noticed the well-known variety Harefield Hall in very good form. A beautiful spike of Odontoglossum harryano-crispum was shown in this group, also a good plant of Lælio-Cattleya haroldiana, which is one of the best of the L. tenebrosa hybrids. Silver Flora medal.

Messrs. Mansell and Hatcher, Limited, Rawdon, Yorkshire, had a unique collection of Cypripediums. We were very much taken with C. leeanum giganteum G. S. Ball's variety. A soft tone of colour was imparted by the varieties C. insigne Sanderæ and C. insigne sanderianum. Silver Banksian medal.

Messrs. Stuart Low and Co., Bush Hill Park Nurseries, Middlesex, had a miscellaneous collection of Orchids, including Cattleyas, Oncidiums, Dendrobiums, Cypripediums and a number of species of botanical rather than horticultural interest. Silver Banksian medal.

A first-rate collection of Cypripediums was staged by Messrs. J. Cypher and Sons, Cheltenham. Among the best of them were C. leeanum Corona (a very fine form), C. Vandyke magnificum and the popular C. insigne Harefield Hall variety. Silver Banksian medal.

Messrs. James and A. A. McBean put up a small group comprising Dendrobiums and Cypripediums. Among the latter we noticed the long-lost species fairrieanum, which was reintroduced a few years ago.

Messrs. W. B. Hartland and Sons, Ard-Cairn, Ballintemple, County Cork, sent five good Cypripediums, including the variety Minos Youngii, which has a broad and well-defined dorsal sepal.

In a small collection of Orchids Messrs. Stanley and Co., Southgate, N., showed a fine plant of Cypripedium leeanum giganteum carrying a dozen handsome flowers.

FRUIT AND VEGETABLE COMMITTEE.

Present: G. Bunyard, Esq. (chairman), and Messrs. J. Cheal, A. Dean, E. Beckett, G. Woodward, J. Willard, H. Parr, A. R. Allan, H. Markham, J. Vert, P. D. Tuckett, G. Reynolds, J. Jaques, Owen Thomas, J. Davis and W. Poupart. No awards were made.

The tremendous exhibit of Apples from British Columbia, staged for the Colonial-grown fruit exhibition, and described in these pages, was on show, and inspired general admiration.

THE SYDNEY DAFFODIL SHOW.

THE Daffodil show of the Horticultural Society of New South Wales was held in the Congregational Hall, Pitt Street, Sydney, on August 22, on which occasion, in spite of the somewhat dry season, a very creditable display was made. Practically the whole of the Daffodils were set up in glass vases, and these, together with some fine exhibits of winter-flowering Sweet Peas, Orchids and other seasonable flowers, were effectively set off by a magnificent collection of rare Palms from the Botanic Gardens. Quite a feature of the show was the magnificent exhibit of mountain-grown Daffodil seedlings raised by Mr. R. M. Pitt, and largely consisting of red-cups. The series, which was quite an extensive one, comprised the result of crosses between Emperor and Empress as seed parents with Poeticus ornatus and Poetarum, and, as a number of spikes of each variety were shown, the whole effect was most telling. For this exhibit a well-deserved cultural certificate was awarded. Mr. Arthur Yates of Exeter, as usual, had a grand non-competitive display of many of the choicer varieties, and in addition set up an interesting series of seedlings with particulars of parentage. Seedlings were also shown by Messrs. H. H. B. Bradley and H. Selkirk. The Narcissus committee awarded three first-class certificates (the only ones for the season) for Australian-raised seedlings of special excellence, three spikes of each submitted, viz., to Mr. H. Selkirk for three flowered Medii named Killara; to Mr. R. M. Pitt for red-cupped Medii of Nelsonii type named H. H. B. Bradley, and for a Medii named G. S. Titheradge. The champion Magni bloom was Empress and the champion Medii Killara, both shown by Mr. H Selkirk.

READING GARDENERS' ASSOCIATION.

NOTWITHSTANDING the counter attractions provided by the prospect of a great political contest in Reading, there was again a very large attendance at the Abbey Hall on Monday evening, November 28. The chairman, Mr. T. Judd, presided, and Mr. T. Tunbridge, The Gardens, Three Elms, Henley-on-Thames, was the lecturer for the evening, his subject being "Winter and Summer Pruning." Apart from being one of the oldest members of the society, Mr. Tunbridge is the "bard" of the association, and, as might be expected, his remarks were punctuated by numerous poetic effusions. The lecturer announced that he had no wish to force his opinions on the experienced gardeners among the audience, and his paper would rather be directed to the younger members and to stimulate a healthy discussion at the close of his remarks. Mr. Tunbridge proved himself a thorough master of his subject, and was listened to with profound attention. He certainly had no reason to be disappointed with the discussion which followed the paper, for it provoked one of the best debates which has ever taken place in connection with the society's meetings, and went far to prove that, on the question of pruning, the "doctors" were largely at variance. Mr. Tunbridge was accorded a hearty vote of thanks at the close of the meeting.

On the occasion of the recent exhibition Mr. George Stanton of Park Place, the great enthusiast in this interesting subject, again filled one end of the hall with a marvellous collection of dried flowers, Grasses (wild and cultivated), wild fruits and seed vessels, which he aptly named "A Winter Reminder of Summer Beauty." Mr. Stanton's indefatigable zeal in bringing home to the mind the possibilities of preserving for winter decoration hundreds of garden growths and of the wild adornments of the hedgerow, the upland and the river-side was again fully to the front. It is impossible to measure the educative value of this loving application of his wide botanical knowledge and research, which has led not only to the brightening of many a home in the dull days, but also to the practical training of the young in a work which greatly widens the intelligence.

THE GARDEN.

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CONTENTS.

THE INTERNATIONAL HORTICULTURAL EXHIBITION 617
The National Rose Society 617
NOTES OF THE WEEK
Forthcoming events 618
CORRESPONDENCE
Chrysanthemum names 619
New single Chrysanthemums 619
The Royal Horticultural Society's new classification of Daffodils.. .. 619
GARDENING OF THE WEEK
For the South and South Midlands .. 619
For the North and North Midlands.. 619
KITCHEN GARDEN
Some good late Peas 620
FRUIT GARDEN
Fruit trees on lawns 620
TREES AND SHRUBS
A veteran Rosemary 620
Hypericum patulum 620
A little-known Willow 621
FLOWER GARDEN
Sweet Pea chat .. 621
Arabis albida in the rock garden .. 621
FLOWER GARDEN
An interesting herbaceous plant .. 622
Saxifraga Fortunei 622
COLOURED PLATE
Eschscholtzia Mikado 622
ROSE GARDEN
Some fragrant new Roses 622
Roses as pot plants 622
Single and semi-double Roses .. 623
GREENHOUSE
A rare greenhouse plant 623
Callicarpa purpurea 623
GARDENING FOR BEGINNERS
Garden work week by week 624
Ventilating frames and greenhouses.. 624
How seedlings are lost through frost 625
Fruit trees 625
Cleaning Vine rods 625
THE TOWN GARDEN.. 625
Editor's Table 625
New plants.. 626
BOOKS 626
ANSWERS TO CORRESPONDENTS 626
SOCIETIES 628

ILLUSTRATIONS.

The single Rock Cress in the rock garden 620
A veteran Rosemary in a Sussex garden 621
Eschscholtzia Mikado .. .. Coloured plate
Saxifraga Fortunei in the rock garden at Kew .. 622
A rare greenhouse plant: Montanoa mollissima .. 623
Ventilating frames and greenhouses 624, 625

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Corent Garden, W.C.*

THE INTERNATIONAL HORTICULTURAL EXHIBITION.

WE have before us a copy of the first provisional schedule of this exhibition, which our readers will no doubt remember is to be held in London in 1912 from May 22 to May 30 inclusive. In addition to particulars of the various classes, the rules and regulations for the exhibition are included, and these appear to be concise, yet comprehensive enough to embrace the many points that are sure to be raised.

The schedule itself is divided into twelve divisions, five of which are devoted to stove and greenhouse plants, including Orchids; one only to hardy plants, including shrubs; one to fruit, one to vegetables, one to Roses, one to Carnations and Pinks, one to new and rare plants, and one to miscellaneous exhibits. Out of a total number of 431 classes, 189 are devoted to various kinds of stove and greenhouse plants, which, naturally, so early in the year must form the bulk of the exhibition. The division for new plants should prove one of the most interesting features of the exhibition, as the numbers of each kind in each class are stipulated. In addition to the classes for new plants, medals or certificates will be awarded to any sufficiently meritorious new or rare plants, cut flowers, fruits and vegetables entered for the purpose.

Although only one division is allocated to fruit, there are a good number of classes, some of which, we fear, will not be filled. Vegetables also have a fair number of classes devoted to them, and these will, no doubt, suffice so early in the year. For Roses there are only twenty-six classes, and these, we think, might well have been extended. This show is to take the place of the Royal Horticultural Society's Temple Show, and, as most of our readers are aware, Roses form one of the most interesting and beautiful features of that exhibition, forced though they are. Hardy plants and flowers, too, seem to have been cut down rather severely; but we presume, should circumstances demand it, that this provisional schedule will be revised, where possible, to meet all reasonable demands of exhibitors.

A notice that appears on the last page of the schedule states that the executive committee is anxious to add classes for other objects, but it is impossible to do so until it is satisfied that the space at its disposal will admit of it. It is also particularly desired to organise a horticultural education exhibition, and to hold a conference in connection therewith, drawing attention to (*a*) the wonderful improvements which have been effected in plants in recent years, and (*b*) the different ways and methods by which those improvements have been attained, drawing attention also to (*c*) the different methods of training young horticulturists in this country and on the Continent of Europe and in America, and (*d*) the excellent work being done by horticultural instructors working under the different county councils. This should prove one of the most interesting and instructive features of the exhibition, and it is to be hoped that room will be found for displays of insect and fungoid pests in various stages of development, and that demonstrations on the best methods of destroying them will be given. Copies of this provisional schedule, in which the prizes are not given, can, we believe, be obtained from the hon. secretary, Mr. E. White, 7, Victoria Street, Westminster, S.W.

THE NATIONAL ROSE SOCIETY.

THE annual report and balance-sheet presented to the members of the above society at the annual general meeting held in London on Thursday of last week, unimportant-looking documents though they are, exemplify in an unmistakable manner the extraordinary and rapid growth of the society during recent years and the excellent work that it is doing in creating a love for Rose-growing, more particularly among the amateur section of the community. Boasting a membership of 4,584, the society is the strongest and most influential of the special horticultural societies in the United Kingdom, and it is gratifying to learn that during the past year over 1,000 new members had joined, which, after allowing for losses by death and other causes, means a net gain in membership of 787.

In presenting his balance-sheet, the hon. treasurer, Mr. G. W. Cook, drew attention to several interesting and important features connected with the work of the society. During the past year the three exhibitions had cost £961, and of this amount £689 12s. was offered in prizes of various kinds, these numbering 573. These prizes had been won by 163 members out

of the vast number that constituted the society, so that it is evident the majority of the members do not join for the sake of exhibiting at the exhibitions. The publications issued by the society during the past year cost £580, and these undoubtedly represent one of the most important features of the excellent work that the society is doing. During six years the amount received in annual subscriptions has risen from £900 to over £2,000, a fact that may well be left to speak for itself. In addition to having a balance at the bank of £364 12s. 10d., the society has a reserve fund of approximately £1,000, and the proposal of Mr. H. E. Molyneux that the surplus on the year's working should in future be spent in forwarding the interests of the flower for which the society exists needs, and will doubtless receive at the hands of the council, careful consideration. Judging by the discussion on this proposal, the members present appeared to be in sympathy with Mr. Molyneux's proposition. However, in dealing with surplus funds, the suggestion of Mr. E. J. Holland, that any money available should be equally divided between the society's exhibitions and publications, ought not to be overlooked. Both are important features of the society's work.

The president for the ensuing year is the Rev. J. H. Pemberton, an amateur rosarian who has for many years devoted a great deal of time to the society and who has given us a number of new Roses of considerable merit, as well as a book on Roses that deservedly occupies a high position in modern publications devoted to the Rose. The many friends of the Rev. F. R. Burnside will learn with pleasure that he has once more been added to the list of vice-presidents. All the other officers were re-elected.

The Dean Memorial Medal, awarded annually by the society to the member who, in the opinion of the council, has done the best work for the society, was awarded to the energetic and respected hon. secretary, Mr. E. Mawley. His work is so well known to those interested in Roses that it is almost superfluous for us to add that this, the highest honour the society can confer, has been well earned, and it is gratifying to know that the valuable services rendered by Mr. Mawley are fully recognised by the council and members.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 19.—National Chrysanthemum Society. Meeting of Floral Committee at Essex Hall.

The Victoria Medal of Honour.—The president and council of the Royal Horticultural Society have been pleased to bestow the Victoria Medal of Honour upon the following gentlemen, viz., Mr. John Cypher of Queen's Road Nursery, Cheltenham; Mr. Thomas Coomber, The Hendre Gardens, Monmouth; Mr. C. R. Fielder, The Gardens, North Mymms Park; Mr. H. B. May, a member of the Royal Horticultural Society's council; and Mr. A. H. Pearson of Lowdham, Notts.—W. WILKS.

Chrysanthemum Pink Delight.—At a meeting of the floral committee of the National Chrysanthemum Society held on December 5, it was agreed that the name of the single variety which received a first-class certificate on November 21 as Pink Delight should be altered to Shoreham Pink.

The National Vegetable Society.—The annual general meeting of the members of this society was held in the Royal Horticultural Hall, Vincent Square, Westminster, on Tuesday, the 6th inst., Mr. A. Dean, V.M.H., presiding. The report of the committee, together with the balance-sheet for the year ending September 30 last, were taken as read, copies having previously been sent to each member of the society. The results of the trials of autumn-sown Cabbages, autumn-sown Onions and early Potatoes which were held last year are embodied in the report, and it was decided that this report should be included in the schedule to be issued for next year. The finances of the society are exceedingly satisfactory, there being a balance in hand of £28 5s. 5½d. after all accounts had been settled. The report and balance-

THE REV. J. H. PEMBERTON.

The New President of the National Rose Society.

sheet were unanimously adopted. The members of the committee were all re-elected, Mr. H. J. Wright being elected in place of the late Mr. J. McIndoe. Mr. A. Grubb and Mr. Gentle were also added to the committee. Mr. A. Dean was re-elected chairman; Mr. Owen Thomas, vice-chairman; Mr. G. Wythes, hon. treasurer; Mr. E. G. Quick, hon. secretary; and Mr. Pinches and Mr. W. R. Wilson, auditors. The secretary announced that he had received offers of prizes from a number of seedsmen, and it was decided to hold a committee meeting for the purpose of arranging the schedule on Tuesday, January 3 next. Offers of prizes from other seedsmen will be welcomed previous to that date, when the committee hope to get the schedule well in hand. The total number of members, including vice-presidents, on September 30 last was 166, and a few have joined since. We appeal to all our readers to strengthen the hands of the committee by joining this society, the annual subscription being 5s. The hon. secretary's address is Kelmscott, Harrow View, Wealdstone, Harrow.

Potato and root crops of Great Britain.—The preliminary statement showing the estimated total produce and yield per acre of the Potato and root crops in Great Britain for this year is now being issued by the Board of Agriculture and Fisheries. The returns show that the yield per acre of Potatoes was slightly larger than in 1909 and well above the average for the past ten years. Owing, however, to the reduction of acreage, the total crop is smaller by 200,000 tons than last year, and nearly half a million tons less than in 1908. The yield per acre of Turnips and Swedes is the highest on record, and the total production larger than in any year since 1897. Mangolds have a higher yield per acre than in any year except 1902, while the total production of this crop is only a little below that of last year, which was the highest on record.

Edinburgh Seed Trade Assistants' Dinner.—The annual dinner was held in the Royal British Hotel, Edinburgh, on the evening of December 3, when there was a large company, numbering upwards of 120. Mr. J. W. M'Hattie, the City Gardener, filled the chair in his usual admirable manner. The toast of the evening, the "Edinburgh Seed Trade Assistants," was proposed in a genial and able speech by the chairman, who referred to the service effected to the country by the trade and to the prominence of many of the men in the trade in Edinburgh in public affairs. The duty of replying to the toast fell to Mr. J. W. Thomson, who fulfilled it in a highly capable manner. The other leading toast was that of the "Seed and Nursery Trade," which was proposed by Mr. J. W. Forbes and responded to by Mr. James Welsh of Messrs. Dicksons and Co., nurserymen and seedsmen. Other toasts followed, and the function was one of the most successful and pleasant of the series of annual dinners held by the members of the trade.

International Agricultural Congress, Madrid, 1911.—The Board of Agriculture and Fisheries is informed that the ninth International Agricultural Congress will be held at Madrid from May 1 to 6, 1911, under the distinguished patronage of His Majesty the King of Spain. In accordance with the decision of the last Congress, held at Vienna in 1907, the Congress at Madrid will be divided into eight sections, and the subjects to be discussed will include the organisation of co-operation and agricultural credit, reafforestation, diseases of fruit trees, animal nutrition and the application of new manures. Societies or private persons can participate in the Congress, the subscription for each person or representative being 20 pesetas (or, approximately, 16s.). Applications for admission, which must be made before March 15 next, should be addressed to the secretaries of the Organising Committee of the Congress at the offices of the Society of Spanish Agriculturists, 12, Campoamor, Madrid.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Cyananthus lobatus.—I was rather surprised to read Mr. S. Arnott's remarks about the above plant. He seems to describe it as a plant that requires a deal of care. I have grown it here on a fairly dry place on the rockery facing south-east, and have never had the slightest trouble with it during the eight years I have grown it. It comes up year after year and flowers profusely, and this is one of the coldest counties in England. I never even attempt to grow any plant that is the least inclined to be "miffy."—(Sir) C. M. WOLSELEY, *Stafford.*

Chrysanthemum names.—Is it not time to raise a mild protest against the adoption of such meaningless, incongruous and misleading names as Strawberry and Crimson Jewel as applied to Chrysanthemums, when the selection of such names is not reflected in the flower? Anyone purchasing the last-named from its title alone would hardly expect to see at flowering-time those red and yellow shades more frequently seen in the Gaillardia, yet these are much nearer the real thing. In like manner Strawberry—the uncrushed article, of course—suggests nothing so much as its own inappropriateness. Surely with a little more thought from raiser or introducer such names might be avoided, or, failing this, the societies granting the awards should penalise the variety until a more suitable name be found.—OBSERVANT.

New single Chrysanthemums. — For the information of "E. G." I give the names with a brief description of new and desirable kinds. I am surprised to hear what is said about Mensa; here in the South we think this is far and away the finest white-flowered variety ever raised. The blooms are 4 inches in diameter, the florets broad, slightly recurving at the tips, giving the flower an elegant appearance. Pictor, pale blush pink, free, either disbudded or otherwise; Caledonia, an extra large variety, rosy lilac, with a distinct white ring round the disc; Peter Pan, fawn colour, flowering in sprays; Mrs. W. Buckingham, clear pink, a most shapely flower; Mrs. T. Hazelhurst, golden terra-cotta; Sylvia Slade, quite the best of bright attractive colours, rosy purple, with a band of pure white around the disc; Altrincham Crimson, very fine crimson; Lady Furness, salmon terra-cotta; Miss Lillian Bullivant, pale primrose; Mrs. R. C. Pulling, white centre, tipped pink; Sir Walter Scott, rich orange yellow; The King, rich flowers of a rosy crimson; Lyra, white, edged rose pink; Charles Dickens, rich orange yellow; Florence Nightingale, creamy white, delicately edged pink; Charles Kingsley, rich buttercup yellow; and Mrs. Tresham Gilbey, which is a pure yellow sport from White Pagram.—E. M., *Swanmore Park, Hants.*

The Royal Horticultural Society's new classification of Daffodils.—When Mr. Jacob told me he had written to THE GARDEN on this subject, I felt curious, knowing his weakness for new classifications, to see what he had to say. His letter reads very much like an apology for this second attempt on the part of the sub-committee of the Narcissus committee to solve a difficulty which, I think, was only half a difficulty, after all. There certainly was trouble at the shows, but this arose chiefly because the show committees neglected to state what they took as their authority. The old classification by Mr. Baker was, to my mind, quite good enough as far as it went, and it would not have been difficult to introduce new subsections to meet the new flowers as occasion arose; but to create an entirely new order seems to me most unnecessary, and can but cause trouble. Mr. Jacob thinks it does not much matter so long as each variety is pigeon-holed. I myself think it does very much matter. The failure of the first attempt might have been taken as a sufficient hint that a change was not wanted. We cannot have one method of classification for shows (if that is its sole object) and another for other purposes without some confusion. I do not grudge the sub-committee all due credit for the immense labour they must have bestowed upon the list. What a list! It is not the list I object to; it may have its uses. What I contend is that it would have been just as useful to judges and exhibitors if the old well-known system of classification had been adhered to.—W. A. WATTS.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

BEGONIA GLOIRE DE LORRAINE.—As the plants pass out of flower they should be cut down to within a few inches of the top of the pot, and placed on shelves in an intermediate house to rest. During their resting period water must be carefully given, only a sufficient quantity to keep the plants alive; if allowed to get too wet they will rot.

Coleus thyrsoideus.—Plants intended to flower early in the spring may be afforded a little stimulant occasionally. A night temperature of 55° Fahr. is ample at this season. Great care must be exercised in watering, as this Coleus has a tendency to drop its foliage when too wet or too dry.

Mignonette.—The late August sowing has by this time produced plants showing their flower-heads, and the pots are well filled with roots. Liquid manure must be given to keep the plants growing in a healthy condition, and a position as near the glass as possible afforded them.

Chrysanthemums.—The cuttings will require constant attention, removing all damp or decaying foliage. It is advisable to wipe the moisture off the inside of the light in the mornings; this will keep the atmosphere inside the frame drier.

FLOWER GARDEN.

Sweet Peas.—Preparations should now be made with regard to getting the ground in order for next season's sowing or planting. Various schemes are adopted, but one thing is quite essential, namely, deep tillage. The ground should either be trenched or bastard trenched, according to the soil conditions. If the second spit is good, then trenching may be done; but if of a wet, clayey nature, bastard trenching is most suitable. A good dressing of manure should be incorporated with the soil.

Spring Bedding.—In many places the Polyanthus beds will need protection from birds to ensure a good supply of bloom for the spring. Small birds especially are very destructive, and will pick out the buds as fast as they appear.

Flower-beds.—Where flower-beds remain empty during the winter it is advisable to have them dug up at the earliest opportunity, and allow the soil to lie rough so that the frosts may get well into it. Manure must be afforded the various beds, according to the plan of next season's bedding.

FRUITS UNDER GLASS.

Tomatoes.—Plants in bearing should be given a free circulation of air and watered sparingly. Anything in the way of superfluous moisture about the house must be avoided, and a dry, buoyant atmosphere maintained. If mildew appears, dust the affected parts with flowers of sulphur.

Cucumbers.—A night temperature of 70° Fahr. should be maintained to keep these growing. A small portion of the old growths may be cut out to induce new. Heavy cropping must by all means be avoided at this season, and frequent top-dressings will prove beneficial. The evaporating troughs should be kept filled with weak liquid manure, and frequent damping resorted to.

Strawberries.—It is usual to start these in the fruit-houses where there is no house specially for them. In any case fire-heat must be avoided at the start. When a vinery or Peach-house is closed, a batch should be brought in.

E. C. POOLEY.
(Gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

IMPROVEMENTS.

IN the majority of gardens there is annually some scheme of improvement to be carried out, and now is the time to see to such work. During frosty weather the removal of soil is a much less laborious business than when the ground is wet and soft. The cutting down and grubbing out of trees and bushes that are in the way or that have to be removed in order to make room for newer kinds can also be carried out in comparative comfort during hard weather. All rubbish, too, is easily burned in clear frosty weather. There is no lack of work for all hands, even if the ground is too hard for ordinary garden work.

Walk-making.—Nothing is more depressing during winter than sloppy paths in the garden. Even when beds and borders are bare, if the walks are dry and firm under foot, there is always a certain amount of pleasure to be had in walking round a garden. When making a walk, therefore, it is necessary to do it in a thorough manner. Begin by throwing out the soil to a depth of about 1 foot, making it deepest in the centre. In wet localities it is a good plan to run a drain down the centre of each walk, providing a good outlet can be had. A garden with a porous subsoil will not require the drain. After the soil is thrown out to the required depth, the next step is to provide a sufficient quantity of rough stones, about the size of half-bricks, for the very bottom. Any kind of stone is suitable, also old bricks, clinkers and mason's "shivers." This latter is our Scottish term for the refuse made by the masons in dressing freestone for building purposes. Nothing better for walk-making can be used, and it is often quite easily obtained. After the very roughest of the "bottoming" is put in, a further layer of finer material should be spread on. This should be passed through a 1-inch sieve. This layer must be spread on quite level and well rolled in. A quantity of ashes or other fine material is then given and also thoroughly rolled down, and the walk is ready for the gravel. A properly made walk should always be slightly raised in the centre.

The Shrubbery.—In too many places the shrubbery, after being once planted, receives but scant attention, with the result that the whole thing gets into a thicket in the course of a few years, all the finer varieties being either killed out entirely or so much choked by the coarser kinds that they give but a poor show. If taken in time, the work of regulating a shrubbery is not at all heavy. The removal of a plant here, the shifting backward or forward of another there, will often make all the difference between a thicket and a really beautiful and interesting collection of fine shrubs. Now is a good time to thin out and regulate those shrubberies that require such attention. It is so easy to transplant bushes of even a fair size when one has them on the ground, for with a little care in lifting there is but small chance of failure. It is different when specimens are bought from a nursery, for even with the best of attention it too often happens that the ball of earth gets broken in transit and the roots get dried with cutting winds, or some other mishap befals them before planting can be accomplished. While I do not recommend the transplanting of Hollies or hybrid Rhododendrons at this season (April is the best season for these), still, if done with extra care, there is no reason why even these may not be moved. In any case, have the holes ready before proceeding to lift the plants, and thus avoid delay.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE KITCHEN GARDEN

SOME GOOD LATE PEAS.

As the time for preparing the seed list for 1911 is close at hand, it is well to ascertain, if possible, which varieties of vegetables are the best and most suitable to grow. For a late supply I have tried several varieties, and among the best of these Gladstone takes a premier position. It produces very large, well-filled pods till late in the season. I have grown it now for some years, and each season the crop has been heavy and the plants very free from mildew. Autocrat is another excellent Pea for midsummer and late use if not sown too thickly and allowed ample space between the rows. Our last sowing of this variety is generally about June 20, but this date might prove too late for the colder parts of the country.

Late Queen is another very dependable variety for the production of delicious Peas late in the season. Its growth is exceptionally strong and robust, and is, therefore, less liable to be attacked by mildew than weaker sorts. I have had splendid crops of Eureka and Ne Plus Ultra when sown at intervals during the summer, and these two have yielded very heavy crops for several weeks. Both are of the best quality for table use.

Varieties of late Peas are far too numerous to allow one to give each of them a trial, but a few fresh sorts should be added each year and notes taken of their behaviour. I have of late years greatly reduced our list, and now depend on fewer varieties, growing more of each, and so continue to maintain an even and lengthened supply throughout the season with less trouble. Our land is somewhat shallow and light, resting on sand and gravel, which necessitates extra attention when preparing it for the coming crops. Deep cultivation is practised annually, with ample decayed manure well incorporated with the soil as the trenching proceeds, or else, should the season prove dry and hot, failure would certainly result.

Wrotham Park Gardens. H. MARKHAM.

THE FRUIT GARDEN.

FRUIT TREES ON LAWNS.

THE practice of planting various edible fruit-bearing forms of Pyrus, as represented by the Apple, Crab, Pear, Quince and Medlar families, on lawns is much to be commended, as if the grass area is comparatively small they are better adapted for the purpose than forest trees of large growth, whether evergreen or deciduous, for they are handsome when in flower and fruit, and the majority grow into shapely trees. Touching this latter point, however, considerable discrimination must be shown, as there is a great difference in the habit of growth in varieties of Apples, the Medlar is very dense, and the Quince assumes with age a gnarled, ragged aspect, which renders it unsuitable for prominent situations.

In the case of free-cropping kinds, the tendency to luxuriant growth is always held in check by the annual crop; but the trees will probably require attention for a few seasons to remove occasional cross pieces and drooping branches that are likely to get in the way. In this latter direction, if a fruit-bearing tree is required to form at some particular spot a natural arbour after the manner of the Weeping Willow, it is best to plant Apple Yorkshire Greening. This, called also Yorkshire Goose Sauce from its special qualifications for sauce-making, has a very drooping habit; in fact, its tendency is altogether in that direction. It is always advisable to plant this variety where it is not likely to interfere with anything beneath it, and so the corner of a lawn where it can at once form a screen and an arbour is an admirable position for it. Mr. Gladstone, King of the Pippins and Adam's Pearmain are three capital Apples for small lawns; they are not strong growers, and are early and very prolific croppers. Taking it all round, there is not a much better Apple for the larger lawn than Blenheim Orange, and a little early attention in the way of pruning will give the foundation of what will ultimately develop into a very symmetrical tree. I have seen equally large trees of other sorts, notably Scarlet Nonpareil, Bess Pool and Hambledon deux Ans, but there are few that combine the qualifications of size and symmetry of tree and quality of fruit.

A very handsome tree is the Siberian Crab, whose merits for jelly-making are so highly appreciated. The difference in habit between the Pear and Apple, so far as standard trees are concerned, is almost as marked as that between the Poplar and Beech, nearly all the Pears planted as orchard trees assuming a perpendicular as opposed to a spreading habit, but the majority of Pears suitable to use for the purpose are not very profitable; they are either, if eatable, of a very transitory nature, or only of use for stewing. A good half-dozen would be Autumn Bergamot, Aston Town, Louise Bonne of Jersey and Beurré Diel for eating, and Catillac and Vicar of Winkfield for stewing. Some of these grow to a very large size in our Southern orchards, and in favourable seasons bear enormous crops, and all are of sufficiently good quality and keeping properties to warrant the gathering and storing of a certain quantity of the best of the fruit.

Both the Quince and the Medlar are of slow growth, and the planter of young trees will have to wait a long time before they attain fairly large dimensions. Given a favourable soil, they are not long coming into bearing, although for some seasons the supply is rather limited. Planters should secure trees from reliable sources, as there are varieties in commerce which are practically worthless. Nottingham in Medlars and Borgeant in Quinces are good sorts. A. G. B

THE SINGLE ROCK CRESS (ARABIS ALBIDA) IN THE ROCK GARDEN. (*See page* 621.)

TREES AND SHRUBS.

A VETERAN ROSEMARY.

THE beauty of the Rosemary has been so warmly championed by Miss G. Jekyll that those who feel with me the truth of her praise will be pleased to see the grand old plant illustrated opposite. I first made its acquaintance twenty-eight years ago, when perhaps it was in respectable middle age,' for it was a large plant even then. It stands on a bank in rather poor, well-drained soil. Plants undoubtedly last longer in such places than when grown more quickly in soil of better quality.

It would add to the charm of many gardens if more respect was paid—when alterations are in progress—to old trees and shrubs which, although not specimens of good culture, have a picturesque value. This is essentially a point on which the opinion of the owner should be loyally supported by the gardener, for, much as the latter may prize any talent he possesses, the former probably has the better-trained perception, and, in travelling further, has seen more examples of artistic gardening. When it has been decided to retain trees or shrubs of the description referred to, a little assistance in the way of supports or top-dressing will often help them to sustain their character for many more years. J. COMBER.

Nymans Gardens, Handcross, Crawley.

HYPERICUM PATULUM.

THIS is an interesting and pretty plant, doubly valuable because of its late-flowering habit. It is a small, bushy shrub 2 feet to 3 feet in height, with bright golden yellow flowers 1½ inches in diameter. The best blooms are obtained from young plants or those that have been cut back in spring. It is a good plan to cut this Hypericum down to within one or two eyes of the base of the younger wood

THE FLOWER GARDEN

SWEET PEA CHAT.

Although the Sweet Pea is justly one of the most popular of hardy annuals, it is not one that can be grown with success in every garden. Some soils and situations are quite unsuitable for it, and in such cases it is useless to attempt its cultivation. Where, however, it succeeds, it is one of the most valuable annuals we have, and it is a matter for surprise that it is not more generally grown. Its beauty and fragrance, its long season of flowering, and the ease with which it is grown, all combine to make it a favourite with everybody. Its popularity is shown by the fact that it is the only annual that has been selected for exhibition at the Royal Horticultural Society's meetings, and the number of blooms staged at the autumn exhibition is always very large. Then, again, it is the only annual that has been selected for exhibition at the National Chrysanthemum Society's shows, and the number of blooms staged at these exhibitions is always very large. Then, again, it is the only annual that has been selected for exhibition at the National Chrysanthemum Society's shows, and the number of blooms staged at these exhibitions is always very large.

A FERRIN ROSEMARY IN A SUSSEX GARDEN.

AN INTERESTING HERBACEOUS PLANT.

(ADENOSTYLES ALBIDA.)

AMONG collections of herbaceous plants very little is known about the species of Adenostyles, although eight of them are natives of Central and Southern Europe. In their relationship to other composites they stand between Eupatorium and Liatris (to mention two familiar genera), but are quite distinct from either in general effect. A. albida was collected in Switzerland by Mr. R. J. G. Read of Ealing when on a mountaineering expedition, and planted in his garden in a slightly shaded situation. There it gradually became established, and flowered better this year than in 1909. The flower-stems, about 2 feet high, are surmounted by level-headed trusses of bright rosy purple flowers that open in succession and keep up a display for some weeks. The individual heads are so small, or, rather, narrow, that close inspection is necessary to determine the family to which they belong. These heads are so numerous that the branching truss terminating each stem presents quite an elegant appearance, and would be novel and pleasing in the cut state either by themselves or mixed with other hardy flowers in vases of water. Many less handsome plants find their way into herbaceous borders, where this would prove neater and both distinctive and attractive. A rather moist situation would suit it best, and enable the plant to retain its large, roundly heart-shaped leaves through the heat of summer. J. FRASER.

SAXIFRAGA FORTUNEI.

IT is a matter for regret that this beautiful Saxifrage from Japan just, and only just, fails to attain the good quality of being hardy in this country. If given a sheltered position and light protection from severe frosts it will prove a success in the rock garden. The little cluster shown in the illustration was taken from the rock garden at Kew quite late in the autumn. On the approach of frosty nights the plants were carefully protected by means of a piece of tiffany propped up with a few sticks. The same species may be seen growing in the cool end of the Temperate House at Kew among the almost hardy vegetation from the Himalayan regions. Here it flowers rather earlier than it would in an open situation. The individual flowers are rather singular, owing to the petals being very unequal, one or more of them elongated. The flowers are white and freely dispersed in erect panicles. Saxifraga Fortunei is an admirable subject for a cool conservatory providing that one is unable to find a place for it sufficiently sheltered in the rock garden.

COLOURED PLATE.

PLATE 1415.

ESCHSCHOLTZIA MIKADO.

ALTHOUGH the Eschscholtzias are regarded by many as perennials, they are usually cultivated as annuals, and as such rightly occupy a prominent position among our summer and autumn flowers. Until comparatively recent years only those with yellow flowers, or shades of that colour, were known in this country; but during the last fifteen years several varieties with flowers of varying shades of red have been raised. In 1897 that excellent variety Mandarin was introduced by Messrs. J. Carter and Co., the blossoms of this being of a gorgeous orange crimson hue, and this was followed in 1906 by Carmine King, the colour of which is aptly described by its name. The crossing of these two varieties resulted in Mikado, which is aptly portrayed in the coloured plate presented with this issue. Needless to say, a cluster of plants of this Eschscholtzia in the foreground of the herbaceous border would lend a touch of colour to the whole that would be unique and beautiful. When shown before the Royal Horticultural Society in 1908 Mikado received an award of merit. This variety is being sent out by Messrs. J. Carter and Co., Raynes Park, London, S.W., to whom we are indebted for the flowers from which the coloured plate was prepared. Given a sunny position, these showy plants are of easy culture in ordinary garden soil. Seeds may be sown either in autumn or spring in places where they are to flower.

SAXIFRAGA FORTUNEI IN THE ROCK GARDEN AT KEW.

THE ROSE GARDEN.

SOME FRAGRANT NEW ROSES.

THE inestimable quality of fragrance in a Rose was never more insisted upon than it is to-day, and the reason, I think, is not far to seek. I can almost trace the cause of so many of the earlier Hybrid Teas being scentless to the fact that a large number have sprung indirectly from Mr. Henry Bennett's splendid production, Lady Mary Fitzwilliam. Many readers will remember that this Rose originated from Victor Verdier on the paternal side. As the seed parent was Devoniensis, it seems very remarkable that the scentless pollen parent should have bestowed its scentless nature upon the offspring. But in most cases where Victor Verdier has been used as seed or pollen parent we seem to have had scentless Roses springing from it. I do not say this is absolutely so, for Mme. Abel Chatenay came from a cross between Dr. Grill and Victor Verdier, and we well know how delightfully sweet it is. But I really think that, if raisers would try and use fragrant Roses both as seed and pollen parents just for a few years, we should in time establish a sweet-scented group of Hybrid Teas. We want to get back to the delightful fragrance of the crimson Hybrid Perpetuals—that powerful attar of Rose scent that we all love so much.

To those who are planting novelties this season I can commend the following as really excellent varieties possessing this special attribute of fragrance, and, of course, they have also other qualities of no mean order. There may be others—in fact, it is certain there are—and if any reader has detected a special rich fragrance in any novelty not mentioned here, he would confer a boon upon those who love fragrance in a Rose to mention it. All the following have a decidedly rich fragrance: Ards Rambler, Château de Clos Vougeot, Claudius, Commander Jules Gravereaux, Dr. O'Donel Browne, Duchess of Wellington, Elizabeth Barnes, Entente Cordiale, Frau Anna Hinner, Frau Rose Benary, His Majesty, Hector Mackenzie, Juliet, Jonckheer J. L. Mock, Lady A. Stanley, Lyon Rose, Mme. Maurice de Luze, Mme. P. Euler, Miss Cynthia Forde, Mrs. Arthur E. Coxhead, Mrs. C. Custis Harrison, Mrs. L. Petrie, Mrs. Maynard Sinton, Mrs. Walter Easlea, Mrs. Wilfred Lloyd, My Maryland, Nova Zembla, Rhea Reid, W. E. Lippiatt and White Killarney. P.

ROSES AS POT PLANTS.

THE time is once more with us when considerable work will be necessary among our pot Roses. One has to consider whether a quantity of flowers for cutting or a number of plants for effect is the main object, as a great deal depends upon a judicious selection of varieties. As plants for decorative effect very few can surpass the Polyanthas, both dwarf and climbing; but we cannot say these are so effective for cut flowers as the larger and stouter blooms found among other sections. Few plants are so showy and pleasing during winter and early spring as the Dwarf Polyanthas, which grow compact, have immense trusses that last a long time, and are the most certain bloomers. Nor is there any lack of choice in respect to colours. A few of the best are Mrs. W. H. Cutbush, Phyllis, Jessie, Orleans Rose, Schneewittchen, Katherine Zeimet, Leonie Lamesch, Ma Paguerette, White Pet and Anna Marie de Montravel, the respective colours of which can be found in almost any Rose list. Personally, I do not think enough use is made of this section for pot culture, and they are as easy to flower early in the spring as the fancy Pelargoniums. But when we come to larger

ESCHSCHOLTZIA MIKADO.

flowers we need to select from the Hybrid Perpetuals and Teas, also the true Teas and Noisettes. Some of the very best of these are, naturally, found in any market list, as no grower of quantities would risk untried varieties, and if they will do for commercial purposes they must perforce be among the most prolific and certain bloomers. The varieties most frequently quoted are Richmond, Liberty and General Jacqueminot from the dark reds; The Bride, Niphetos and Frau Karl Druschki, whites; Perle des Jardins and Lady Hillingdon, yellows; Mme. Abel Chatenay, Caroline Testout, Catherine Mermet and Bridesmaid, pinks; with Sunset and Sunrise, buff and apricot reds. Mrs. John Laing and Ulrich Brunner are also frequently mentioned; the first is a clear rosy pink and the last a deep cherry red. These are noted for long stems, which greatly help the decorative effect and fewer flowers are needed.

To grow Roses in pots one needs to commence early and steadily, never forcing them until the flower-buds are formed. Steady treatment and care not to let insect pests get so much the upper hand as to need strong measures in eradicating them are the main points towards success. Plenty of liquid stimulants may be given, but it is much better for these to be weak and applied frequently. We often find a great deal of care expended upon winter-flowering plants with far less satisfactory results than if the same was afforded to Roses. Start steadily and keep them clean from the very first. This, with care as regards sudden fluctuations of temperature, will generally secure good results. Much has been written from time to time upon pot Roses, and from some of the articles one might almost despair of succeeding in following the directions, but they need no especial care and skill. A. P.

SINGLE AND SEMI-DOUBLE ROSES.

WILL anyone ever make an attempt to form a Rose garden of single and semi-double varieties? Perhaps that is too much to expect, and yet it would be a very lovely garden, as there are many varieties now available. I know a difficulty would arise from the very outset as to what is a semi-double Rose, as so many of our modern Roses are but semi-doubles, *e.g.*, Betty and Dorothy Page-Roberts. We seem to want a term to describe such Roses as Bardou Job and Gottfried Keller, for one cannot say they are single, although there are but two or three rows of petals. But for practical purposes they are single, and it is to novelties of this class and the true singles that I would draw attention.

At the Autumn Rose Show was there anything more delightful than Gottfried Keller? Its apricot and golden blossoms were exceedingly beautiful. This is a Hybrid Briar with wood and foliage very like a Briar, yet showing unmistakably its Tea parentage on the paternal side, which has given it its perpetual-flowering habit. Entente Cordiale is another lovely Rose. In the bud it is strangely reminiscent of Juliet; the large flowers are produced in big clusters, and the colour is Nasturtium red on a golden yellow ground, the back of the petals being golden salmon at the base. It is a big bloom and very attractive in the mass, and apparently perpetual flowering. Can anyone do anything but admire the very large-flowered Simplicity, in appearance reminding one of an exaggerated Narcissus? This refers more to the huge expanded flowers, which are fully 6 inches across. The petals are of thick texture, slightly cupped, and before they expand the bloom more nearly resembles a white Water Lily than a Rose. Being such a splendid grower and constant bloomer, Simplicity will be in much demand as a small shrub Rose, being associated, maybe, with some of the delightful flowering shrubs with which our gardens may now be enriched.

Miss Muriel Jamison is a very lovely Tea novelty something after the style of Irish Elegance, but the open flowers are richer in colour, although in the bud I do not think it is equal to it. There is, however, sufficient distinctness to warrant the planting of both, and surely no Roses could surpass them for decorating dinner-tables. Theresa, a Hybrid Tea, is a delightful semi-double sort, having flowers of marvellous colouring, deep orange apricot, passing to madder pink with carmine splashes. It is a garden Rose of great beauty and attractiveness. Sheilagh Wilson, another Hybrid Tea, will be a charming addition to the single Roses. It was raised by the well-known Irish rosarian, Dr. Campbell Hall. Alexandra Zarifi is a single-flowered variety of the type of Irish Elegance, but quite distinct. Among ramblers no one who loves single Roses should omit to plant Paradise, Delight, Diabolo, Coquina and Ariel, all really charming. P.

A RARE GREENHOUSE PLANT: MONTANOA MOLLISSIMA.

THE GREENHOUSE.

A RARE GREENHOUSE PLANT.

(MONTANOA MOLLISSIMA.)

THIS interesting Composite, shown in the accompanying illustration, affords a useful decorative plant for the greenhouse or conservatory during the late autumn and winter months. The plant forms an erect, much-branched shrub from 4 feet to 6 feet high. The white flowers, about 2 inches in diameter, are borne freely in terminal corymbose panicles; the leaves are lanceolate, 5 inches to 6 inches long, 1½ inches to 2 inches broad, deep green above, silvery beneath. M. mollissima is quite an easy plant to manage, and may be increased either by seeds or cuttings, which root readily if inserted in sandy soil in early spring. The plants thrive in a loamy compost, and succeed best under cool greenhouse treatment. They may be grown outside during the summer months; this will induce the plants to flower freely. Although introduced into cultivation so long ago as 1843 from Mexico, it is a rare plant in this country; but in gardens of Southern Europe, where it thrives in the open air, it forms a very ornamental shrub. Another name for this plant is Montagnea grandiflora. W. T.

CALLICARPA PURPUREA.

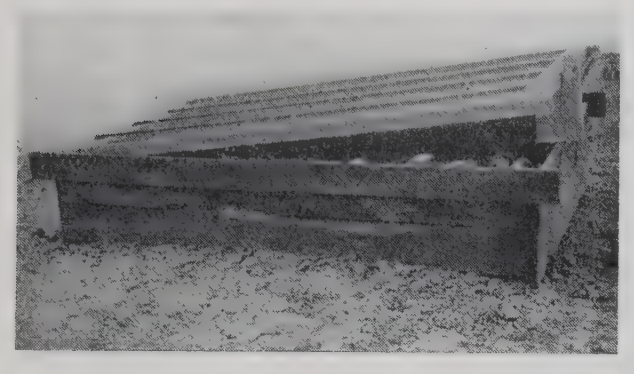
AMONG the different plants whose ornamental fruits serve to embellish the greenhouse at this season must be included this Callicarpa, which, apart from its ornamental qualities, is in general appearance totally distinct from any of its associates. It is a member of the Verbena family, but the flowers are not very conspicuous. This Callicarpa is of a shrubby character, producing long, Willow-like shoots, clothed with ovate, hairy leaves. The tiny greenish flowers are borne in flattened clusters from the axils of the leaves for a considerable distance along the shoots. The berries, which ripen in the autumn, are, when full-grown, about the size of small Peas, and of a rich purple colour when ripe. They remain fresh and bright for a considerable time, during which period the Callicarpa is very useful for decorative purposes. It is an old plant in gardens, having, according to the "Dictionary of Gardening," been introduced from India in 1820. This Callicarpa is a plant of easy propagation and culture, for cuttings root in the spring as readily as those of a Fuchsia, and grow away just as freely afterwards. During their earlier stages the young plants should be stopped two or three times in order to lay the foundation of a bushy habit, after which the shoots had better be allowed to develop, as the finest display of berries are borne on those of a long wand-like character. Although not particular as to soil, it will thrive best in a compost of equal parts loam and peat, to which should be added a small quantity of broken charcoal and river sand. Larger specimens, grown as standards, are very useful for grouping purposes. H. P.

GARDENING FOR BEGINNERS.

VENTILATING FRAMES AND GREENHOUSES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—In years gone by gardeners used to protect their Rose trees more thoroughly than they do at the present time. It was a usual practice to lift Teas, Hybrid Teas and some of the standard Hybrid Perpetuals and "heel" them in behind a sheltering wall, so that a good covering might be easily put on when



1.—COLD FRAME VENTILATED WITH THE THREE-STEP BLOCK.

severe frosts came. It is necessary to afford some protection to Rose trees in these days, but it is not advisable to lift them. A neat surface mulch of rather littery manure should be put on to a depth of 4 inches or 6 inches. The branches of the Teas and Hybrid Teas may be loosely gathered and tied, and then wrapped around with a small quantity of clean straw or Fern. It is really wonderful how very effective such a covering is against frosts. The unripe ends of the shoots may be blackened by frost, but in any case such shoots are useless for next year's crop of flowers, and when the severe weather has passed the blackened portions can be cut away. How rarely do we feed hedge plants; yet it is a wise thing to do. Plants which form hedges grow very close together, and they rob the soil of its good qualities in a short time. We do not want gross-growing hedge plants, but those that are strong and robust. Judicious feeding with rotted manure at this season helps the growth and tends to keep the roots active.

Vegetable Garden.—No doubt many cultivators have already fixed upon the plots of ground on which they intend to grow root crops next summer; if there are some who have not done so, they ought not to lose any more time in the matter. Deeply trench every square foot of ground selected; it does not matter whether the soil be clayey or sandy, deep trenching is advisable for root crops and absolutely essential to success in the case of clay soils. In sandy soils the nutriment contained in manure would be washed down deeply if put in now; but this is not the case with clayey soils. It is important that all clayey soils be thoroughly broken up now below the surface, but the top portion should be left in a lumpy condition.

Fruit Garden.—The branches and buds should be well examined; they may be found quite safe from the attacks of insect pests at the present time, but they will not be safe from them next spring and summer. Many insects lurk in the old nail holes in walls and similar places. Mix some cement and sand together in equal quantities and firmly plug up all holes in walls with the material; but first well brush out the hole with a suitable brush dipped in paraffin oil. The pests are thus destroyed and their hiding-places closed against others.

Greenhouse and Frames.—Christmas Roses that have flowers very forward may be lifted and placed in boxes or pots in the greenhouse. Lift the plants with plenty of soil adhering to the roots. Some of the clumps may be placed in cool frames; blooms so protected are always quite clean. Late Libonias may also receive special attention. Give the plants a warm position and be very careful not to over-water, else the leaves will drop off in showers. Gardenias in pots will also be the better for having a warm corner in the structure devoted to them. Chrysanthemum suckers in frames must be watched closely and kept free from the attacks of slugs. Top-dress those plants that are not showing cuttings freely. A. A.

VENTILATING FRAMES AND GREENHOUSES.

CONSIDERABLE want of knowledge exists with beginners regarding the matter of ventilating frames and greenhouses. During the winter season very little ventilation of the glass structures is really necessary. As the season advances, however, and the days begin to lengthen towards the end of January and the advent of spring is announced by experiences of sunshine, the value of knowledge of what to do in such circumstances cannot well be over-estimated.

In heated pit frames and greenhouses the greatest care is necessary to prevent the temperature rising too rapidly when brighter days come along. The combined heat of the sun and the hot-water pipes on a fine day in early spring will quickly cause the temperature to rise too high; such a state of affairs must be guarded against and the ventilators opened with due care, so that a normal temperature under glass may be maintained. No hard-and-fast rules can be laid down, the degree to which the glass structure should be ventilated depending almost entirely on the weather and the position in which the greenhouse is situated. When the temperature rises too high, means must be taken to allow the warm air to pass out, observing the greatest care at all times to prevent a draught. A draught of cold air in a greenhouse where the temperature has been too high has a most detrimental effect upon the plants. It is in the spring that so much risk to the plants is incurred. Cold and cutting winds in March and April are always a source of anxiety to those who grow a number of tender plants and seedlings under glass. Injudicious opening of the side lights of the greenhouse at this period may result in many plants suffering severely; and in April and sometimes early May the weather is very treacherous. Beginners may be led into the error of opening the top ventilators on very bright, sunny days in the spring, and of being caught unawares by cutting easterly winds and cold, icy hail-storms; the ill-effects of such an experience will not easily be removed. Cold draughts cause the tender leaves to shrivel, and in such a condition the plants fall a ready prey to fungoid diseases and insect troubles. A span-roofed greenhouse has this advantage: that the ventilators can be opened on the opposite side to that whence the wind is blowing; consequently ventilating in such cases is made quite simple. If the glass house be of a lean-to description, such as is depicted in Fig. 3, slightly different rules should be observed. During the winter and the earliest days of spring the top ventilators should only be opened slightly. In warm weather, however, the top ventilators should be opened wider. The side lights may also be opened in varying degrees where flowering plants are growing, and less wide where young plants and tender seedlings are making progress. The amount of air to be given to a glass house is governed by the character of the subjects grown therein and the season of the year. When young and tender plants are growing away freely in the early and late spring they need a moist or humid condition of the atmosphere; this is a point that must be considered when affording ventilation to the greenhouse. In the ventilation of frames, cold or otherwise, there are simple contrivances that do much to make the work easy. I have seen bricks and pots of various sizes utilised for raising the frame-lights to the desired height. It is much better, however, to have a number of wooden blocks of various sizes at hand, so that ventilation may be the more satisfactorily afforded. By the use of these simple blocks the frame-lights may be raised slightly, which will give a moderate supply of air, while the second step will afford a larger supply, and by placing the frame-light on the top step a full and free supply of air may be ensured. These step-blocks are often secured to the frames by a small chain, so that they are not lost and are always on the spot when required. Fig. 1 represents an ordinary cold frame with the step-block in use. The step-block is preferable to all other contrivances, no matter how simple they may be. In Fig. 2 there is depicted a series of frame-lights covering a long, open, cold frame. For the purpose of illustration two frame-lights are shown tilted on their sides and maintained in position by the support given by a 5-inch pot. A large wooden block for this purpose would be much more satisfactory. Frame-lights are often arranged in this manner, opened in a contrary direction to that whence the wind is blowing; and this method

2.—SERIES OF FRAME-LIGHTS RAISED IN TWO METHODS.

of ventilation is observed at a time when it is desired to harden off plants previous to standing them in the open. The frame-lights in the background of Fig. 2 are raised alternately in a moderate degree. This is a system that may well be practised in the dull months of the year, also in the mornings of winter days when there is an absence of frost.

Careful ventilation of the cold frame in the manner indicated may save many cuttings and young plants from damping off during the dark days of winter. It may be necessary sometimes, owing to the direction from which the wind is blowing, to raise the bottom end of the frame-light instead of the top end, as is customary in many gardens. Early morning ventilation is very important. This work should not be left over until later in the day, and the amount of air to be admitted should largely depend upon the temperature prevailing both inside and outside the frame or greenhouse. D. B. C.

HOW SEEDLINGS ARE LOST THROUGH FROST.

EVERY autumn there are thousands of young plants put out either in nursery beds in readiness for transplanting to their flowering quarters next spring or in their permanent quarters now. Quite healthy young specimens they are when first they are planted, but in a very short time there is a change—many possess yellow leaves and others seem to lessen in size rather than increase. What is the cause of this change? The answer is: Frosts cause the mischief. The soil, being lately dug up for the putting in of the plants, has not settled down, and when a frost comes the young plants are loosened and raised up very considerably in the soil. If they are left in this condition after the frost has gone they begin to fade, and the next frost damages them still more. Watch all such valuable young seedlings, and directly a frost has well gone out of the ground (not before) make the soil once more firm around the roots of the plants. In this way those precious young white, thread-like roots will be preserved and, coming into contact again with the soil, continue to grow; but if left in loose, frost-bitten ground they will perish.

FRUIT TREES.

WOOD *v.* FRUIT BUDS.

WHEN an inexperienced gardener is engaged in the winter pruning of Apple, Pear and Plum trees, he may do, unintentionally, a lot of damage. Fruit buds take a long time to form, but they may, through ignorance, be cut away in a second. A fruit or flower bud is rounder and shorter than a wood bud. They may be termed fat and lean buds. The fat buds contain the flowers and the embryo fruits; the lean buds only contain leaves and the embryo shoot. Fruit buds are mostly found on the "spurs," the short, stocky growths generally well studded with buds; all, however, are not fruit buds. When cutting back a branch which grows from one of these spurs, the workman must leave about two buds at its base. It will be the safest plan for an inexperienced person in gardening matters to leave all buds found growing on the spurs, and then to disbud them when they are a few inches long. The fruit buds will then have opened, and the removal of all shoots will prevent undue overcrowding. The new wood or shoots will come from the buds left at the base of the pruned branch, and one of these only should be left to grow. B.

CLEANING VINE RODS.

THE hard peeling of a Vine rod seems to have a fascination for the inexperienced cultivator; why I do not quite know, but I do know it is a fact. This, however, is likely to have an injurious effect. It is unnatural to peel off the bark so violently. Some persons do it so that they may get rid of insect pests. Where Vines are badly infested with mealy bug, all loose bark should be removed, but even then the peeling of firm bark is a wrong thing to do. Sometimes the garden labourers are brought in to peel the Vines; in the majority of cases they are quite inexperienced and may do harm. Only those men who have had much practice at this work should be allowed to touch the Vines. Having peeled off the bark, a thick mixture of clay and some other ingredients is put on, and this tends to close the pores of the rods. My advice to the inexperienced grower is to remove very carefully the loose bark only; then, with equal care, thoroughly wash the rods with water heated to 120°. Finish the cleansing by giving a dressing of some insecticide advertised in THE GARDEN, and so really clean the Vines. Avoid touching the buds. AVON.

THE TOWN GARDEN.

BORDER CARNATIONS.—Doubtless many of my readers will have invested in a few of the high-class novelties which have been exhibited during the past summer, and which so much attract by their improved forms as compared with the older types of these flowers. Those who purchased their supplies early in the season, and in this way secured plants which when re-established would pass the winter with comparative safety, will have but little cause for fear; while those who deferred giving their orders in due season will find it to their advantage to give the plants frame protection till the worst of the winter weather is past and gone. The Carnation plant, albeit reputedly hardy, is not proof against frost, rain and thaw, and these again in reverse order, probably during a succession of days, the more so when exposed to the evil

3.—METHOD OF VENTILATING A GREENHOUSE.

influences of fog, smoke and the many other impurities incidental to town-dwellers. Hence, if we would seek to give it its chance in life, it must not be relegated to the drudgery of garden surroundings, but rather provided with that meed of protection which the circumstances demand.

THE COLD FRAME.—In the circumstances in mind the cold frame treatment is much the best, and to the plants a decided gain on the "cold-shoulder" principle of outdoor gardening at such a time, and which savours so very much of neglect. The "cold frame," should the orthodox article be non-existent, may be quite a simple affair—a few boards and an odd light, for example—whose sole object is to protect the plants from those extreme alternations of weather so characteristic of the British Isles. The orthodox article—the cold frame proper—is, of course, superior to makeshifts or conveniences, and in any and every garden should not merely be regarded as a valuable asset, but also as an essential adjunct to the greenhouse where such exists. Into such a frame those Carnations we have now in mind would pass the winter well, provided that free ventilation is given to the occupants at all times. To place the plants therein, to limit their air-space, and to box them up so that a change of air is an almost impossible thing, is virtually to subject these things to conditions akin to slow poisoning, and the habitation or dwelling-place of a plant *must be* as considerately ventilated as that for a human being if health is to be preserved. This, of course, to the professional gardener is but simple logic; to the amateur or beginner it might also mean the purest science.

HOW TO ADMIT AIR.—The best of all ways to do this is by the overhead system, the most perfect that I know being by means of a small block or strip of wood so screwed to the frame at each of its corners as to be raised or lowered at will. When raised the light rests thereon instead of on the frame itself. These ventilation strips should be about 6 inches in length, which, allowing for fixing, would give an opening of nearly 4 inches. Many frames are ventilated by simply placing a block of wood under the back of the light, the weak point of which is that the lowest and dampest end of the frame is hardly catered for at all. By the simple method described, a free passage of air is admitted over the entire area of the frame, and this is highly desirable.

ARRANGING THE PLANTS.—In conjunction with the free admission of air to the plants, the arranging of them in near proximity to the glass is also of importance. For example, a deeply built frame with the plants arranged at or near ground-level would not be good, the conserved damp at such a level quickly giving rise to "spot" or other diseases; hence the need for a shallow frame or for raising the plants to the position already indicated. This may be accomplished by a bed of coal-ashes, which, while warm and congenial to the plants, is likewise opposed to the ingress of worms and the encouragement of slugs. Further, if the plants, which at this season would be supplied in pots, were plunged to the rims of the receptacles, little or no water would be required for weeks together. E. H. JENKINS.

THE EDITOR'S TABLE.

SHAMROCK PEA FROM SOUTH DEVON.

From Mr. Wyndham Fitzherbert, Kingswear, South Devon, we have received a box of flowers of this low-growing and charming plant, which is so seldom seen. Its many good points are clearly given in the following note which accompanied the flowers: "I send you herewith a gathering of the Shamrock Pea (Parochetus communis). It is charming at this season of the year, when scarcely anything is in bloom in the open garden. It commenced to flower in the first week of October, and by the middle of the month the plants, which cover more than a square yard of ground, were covered with blossom. At the present time it is certainly the loveliest object in the garden, and continues to bloom until well on in December. The pretty, porcelain blue flowers are borne singly or in pairs, and are very attractive poised above the dark-zoned leaves. It appears to do best in a partially shaded spot in porous soil composed chiefly of leaf-mould. The creeping stems are much aided in flowering if in the summer they are lightly top-dressed with wood-ashes and leaf-mould mixed, which screens them beneficially from the hot sunshine and feeds the young roots. As it is a native of the Himalayas, it cannot be considered absolutely hardy, but it is, I think, rarely injured by the winter in the South-West. Last year I lost my plants, but this I attribute to their being placed in a very sunny position, where they became dried up. This spring I obtained some more plants from Mr. Walton of Mount Usher, where it grows like a weed, and after a week or two they grew away well and have now spread far and wide over the border. It is a charming plant, and all who delight in beautiful flowers in October and November should grow it."

NEW PLANTS.

CHRYSANTHEMUM MRS. GILBERT DRABBLE.—A large nearly pure white Japanese variety of exhibition standard; the huge flower-heads were said to possess a circumference of 2 feet 3 inches. It is unmistakably destined to figure as a fine top-row flower, or would present an imposing feature freely displayed in big vases.

Chrysanthemum Lady Furness.—A single variety of merit and distinction, the rose bronze shade, which renders it so pleasing, being, so far as we remember, a quite novel one in this section of the flower. These two Chrysanthemums were exhibited by Messrs. William Wells and Co., Limited, Merstham, Surrey.

Begonia Gloire de Lorraine Rochfordii.—This is a rich or deep red coloured variety of the typical kind, identical in every other respect save that of colour. The flowers on the exhibited examples do not appear to expand so fully or freely as the original. Shown by Messrs. Thomas Rochford and Son, Broxbourne, Herts.

Odontoglossum Rouge Dragon.—This is a grand Odontoglossum with heavily blotched flowers, that are now so much sought after by the specialist. The flowers are of good symmetrical form, both blotched and spotted with maroon crimson on a pale background. It is the result of a cross between O. Phœbe and O. ardentissimum.

Odontoglossum Ceres Plumpton Hall variety.—This rather delicate-looking variety was obtained by crossing O. Rossii and O. Rolfæ. The perianth is covered with well-defined chocolate spots over a white groundwork. The lip is unusually large and of a pleasing pinkish hue, which in no way harmonises with the rest of the flower. These two Odontoglossums were shown by W. R. Lee, Esq., Heywood, Lancashire.

Vanda cærulea Blue Beard.—This remarkable variety of the popular blue-flowering Orchid created quite a sensation among Orchid enthusiasts. The flowers are notable for their rich colour, which is almost an indigo blue, chequered with lighter veins. The plant shown bore a strong spike with a dozen very large flowers. Shown by Colonel Sir George Holford, K.C.V.O., Tetbury, Gloucestershire.

Cypripedium Waterloo.—A remarkable Cypripedium of good form, but by no means handsome. It possesses a very large, over-arching dorsal sepal of a brownish magenta hue with a greenish base, and edged with a broad white margin. The petals incurving are also of a brownish hue, tipped with green. The lip or pouch is bordering on crimson. It was raised from C. Mrs. W. Mostyn × C. Ranjitsinhji, and was shown by Mr. E. V. Low, Vale Bridge, Hayward's Heath.

All of the above novelties were shown before the Royal Horticultural Society on December 6, when each received an award of merit.

In connection with the conference held under the auspices of the National Chrysanthemum Society at Essex Hall, Strand, W.C., on the 5th inst., the floral committee met for the purpose of adjudicating on new varieties placed before them on that occasion. There were several good novelties of a decorative character that were the recipients of either a first-class certificate or a commendation.

The two varieties described above, Mrs. Gilbert Drabble and Lady Furness, each received a first-class certificate, the first-named being shown by Mr. John Bryant, Gothland Lodge, Sandown, Isle of Wight, and the other by Messrs. W. Wells and Co., Limited, Merstham, Surrey.

The committee classified Pink Felicity and Mrs. Chamberlain (singles) as too much alike. Clibran's Crimson and Elsie Neville were provisionally classified as too much alike, to be confirmed by certain growers at the next meeting.

BOOKS.

Garden Planning.*—To those about to lay out new gardens or desirous of altering existing ones we heartily commend this book. It has been said, and not without some truth, that no one plan is likely to prove suitable for any plot of ground that has to be laid out; but by giving a number of plans and offering numerous and lucid suggestions, many of which bear the stamp of originality, the author has endeavoured, and succeeded, to compile a book that will, we think, prove of great assistance to those named above. Practically every phase of garden planning is dealt with, and the chapters devoted to walks and edgings are particularly useful. Sloping gardens, rock gardens, Rose gardens, water in the garden, the vegetable garden, and fences and hedges all receive due consideration, and we are pleased to note that the author draws special attention to garden accessories, *i.e.*, summer-houses, vases, &c., which are frequently very greatly misused. The laying out of tennis and croquet courts and flower-beds is also fully dealt with, so that the book may be regarded as an up-to-date *vade mecum*.

Orchids for Everyone.† — This book may be briefly described as a dictionary of the more popular and lesser-known Orchids, freely illustrated with coloured plates and half-tone blocks. Realising fully the difficulty that besets an author in dealing with a subject of such magnitude, we must still confess to a feeling of disappointment that cultural details are not gone into more fully. By cutting down the lists of species and varieties to one-half, this might easily have been done without adding to the size or cost of the volume. The arrangement of the contents is excellent, and a full index renders reference quite easy. The chapter on hybridisation, seeds and seedlings, together with the monthly reminders, we look upon as the most valuable parts of the whole book. In the first-named chapter attention is rightly given to the hybridisation or crossing of the flowers, raising and subsequent treatment, and if a few illustrations depicting this important work could have been included, they would have added very considerably to its value, especially for those who are novices at the work, and for whom the book is apparently most intended. The section devoted to "The Most Useful Orchids" is a very large one, and as all the kinds are arranged alphabetically, it is an easy matter to find any particular genus that is required. Then comes a section on "Orchids of Lesser Value," and, finally, hardy Orchids are dealt with, so that on the score of completeness even the most fastidious cannot find fault. But when we come to the illustrations there is a different tale to be told. All the black-and-white pictures are beautifully reproduced, and add very considerably to the beauty of the volume. We would, however, have liked more such as that facing page 129, where a young Odontoglossum plant with new growth is depicted. Such illustrations would have been of more value to the cultivator than those showing flowers alone. No fewer than fifty-three coloured plates, prepared from colour photographs, are included, and although some of these are done very well indeed, many are poor and not true representations of the flowers they are supposed to depict. No doubt reproduction from colour photographs is, as yet, in its very early stages, but in a book of this description it should have been possible to get better results than those before us. Mr. Curtis writes in a pleasant, methodical manner, and those who are about to take up Orchid culture, as well as those experienced in the work, will find much valuable information presented in a readable and easily understandable manner. In concluding, we would draw attention to an obvious error that has crept into the title-page. There the author is described as "formerly keeper of the Orchid collection at Kew." Is it not a fact that no such position exists or has ever existed at Kew? We believe that Mr. Curtis was at one time a sub-foreman in the Orchid department there, a post that has been held by scores of young men.

* "Garden Planning," by W. S. Rogers; price 10s. net. Mr. T. Fisher Unwin, Adelphi Terrace, London.

† "Orchids for Everyone," by Charles H. Curtis, with coloured illustrations by T. Ernest Waltham; price £1 1s. net. Messrs. J. M. Dent and Sons, Limited, London; and E. P. Dutton and Co., New York.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Crocus speciosus dwindling (*T. E. S.*).—In our experience Crocus speciosus frequently dwindles in size in stiff soil, and there, instead of producing corms of flowering size, only forms small ones which do not bloom. In light soil it does much better, as in your instance. In loose grass it does well enough, but in firm turf it is quite unsatisfactory, forming only the little corms it produces in the stiff soil. In such it is one of the most unsatisfactory of our Crocus species. Of course, the time when the grass is cut is an important factor in the question. It should not be cut until the leaves have become yellow; but as you say that C. zonatus does well there, you probably take care that the grass is not mown too early. Cannot you devote a place where the soil is looser and more open to this fine Crocus?

Early-flowering Chrysanthemums (*Glandore*).—In favoured localities these plants endure the winter with impunity; in many others they simply perish outright if left in the soil, and as a result have to be propagated each year afresh. The last-named method gives almost invariably the best results. Take the clumps up now, and give them frame protection or a slight covering of fine soil or ashes in a sheltered place against a south wall. In March numerous shoots should appear if all is well, and these are often enough available with root-fibres attached when 3 inches or so long. At that time they may be detached and transplanted in rich, light earth in a nursery bed or frame, planting them out in their permanent places at the end of April, attending to their requirements in the way of watering and other things. These well-rooted pieces do exceedingly well and make vigorous plants. Firm planting is necessary, and a deep and well-enriched soil is desirable if the best results are to be obtained. We are pleased at all times to render any assistance in our power, and gratified to know that THE GARDEN has proved so helpful to you.

Irises and Montbretias unhealthy (*E. W.*).—It is quite usual for the Irises to fail in the way you describe, and, so far as our experience goes, no appreciable harm is done to the plants, nor is their flowering affected for another year. Many of the Flag Irises are not wholly of an evergreen nature, and the failing or premature ripening off is frequently influenced by the season. Digging them up, dividing and replanting them in March next would assist matters, more particularly if the bed was remade. If you leave the work till their flowering is past, a season will probably be lost, and it is getting late for doing the work now. You will find some useful hints on the Montbretias in "The Town Garden" notes in our issue for October 22, and we suggest that you follow the advice there given.

Herbaceous Pæonies in partial shade (*Doubt*).—Provided the soil is deep and fairly rich, the Pæonies would do quite well in the position to which you refer. Their flowering would naturally be somewhat later than in a fully exposed situation, though in the event of late spring frosts the plants would suffer much less. Pæonies do not long succeed in heavy shade or drip resulting from trees overhead, or where the ground is much robbed by tree roots. Just what plants would do well for the same situation in autumn depends not a little upon circumstances, and we incline to the opinion that such Lilies as speciosum and tigrinum in variety are among the most suitable things to associate with them. Please see the leading article on Pæonies in our issue for October 15. You do not say what space you desire to fill, and in certain positions the Japanese Anemones would be helpful for an autumn display. At other times Daffodils, Hepaticas, Lenten and Christmas Roses and hardy Cyclamen would be charming.

A list of Yuccas (*W. H. C.*).—Yuccas are an extremely variable race, and botanists differ greatly in their estimation of the characters necessary to found a distinct species thereon. The "Kew Hand List" gives, of hardy kinds, Yucca angustifolia, Y. a. stricta, Y. filamentosa, Y. f. flaccida, Y. f. variegata, Y. glauca, Y. gloriosa, Y. g. Ellacombei, Y. g. variegata, Y. orchioides, Y. o. major, Y. recurvifolia, Y. r. variegata and Y. rupicola. The tender kinds in the "Kew Hand List" are as follow: Yucca aloifolia, Y. a. Dracomis, Y. a. serrulata, Y. a. tricolor, Y. a. variegata, Y. angustifolia, Y. a. stricta, Y. baccata (syn. Y. circinata), Y. b. australis, Y. brevifolia, Y. desmetiana, Y. elata, Y. e. albo marginata, Y. filamentosa, Y. f. variegata, Y. filifera, Y. flexilis (syn. Y. falcata and Y. semicylindrica), Y. f. falcata, Y. glauca, Y. guatemalensis (syn. Y. ensifolia), Y. macrocarpa, Y. Peacockii, Y. treculiana (syn. Y. canaliculata), and Y. Whipplei (syn. Y. Engelmannii). Some are in both lists; this is to be accounted for by the fact that the climate of the British Isles varies considerably, and no hard-and-fast line can be drawn as to what is absolutely hardy or tender.

Beds on terrace garden (*Ilex*).—The Italian garden would look very well planted with the smaller-growing Tree Ivies, such as Silver Queen and Hedera Helix foliis aureis, Euonymus radicans (gold and silver variegated), dwarf Boxes (gold and silver variegated) and Cotton Lavender. As an alternative you might plant some of the beds with dwarf Heaths, such as Erica cinerea and its varieties, E. carnea, E. mediterranea hybrida and E. mawiana. Iberis sempervirens might also be used as a dwarf evergreen flowering plant. Each kind ought to be planted as a single bed to look at its best. You will find that plants such as these will look well during the whole of the year, and be infinitely less trouble than herbaceous plants. By giving an annual pruning during late April these subjects may be kept quite dwarf. Should you, however, still wish for herbaceous plants, we would advise you to plant Sedum Telephium, S. reflexum, S. acre, Saxifraga muscoides, S. Geum, S. tenella, S. tricuspidata, any of the hardy Sempervivums, Aubrietia deltoidea and its numerous varieties, and Arabis albida. The following ornamental Cherries would thrive in your garden: Prunus Avium flore-pleno and P. Pseudo-cerasus Jas. H. Veitch.

TREES AND SHRUBS.

Situation for Quercus macrophylla (*Nil*).—Your young Oaks ought to be planted in good, deep, loamy soil, where they will be sheltered somewhat. Scots Pines or some similar subject ought to be planted among them to act as nurses for a time. A west or north-westerly aspect would probably be most satisfactory. For Black American Walnut try Messrs. Little and Ballantyne, Carlisle; Messrs. Dicksons, Limited, Chester; and Messrs. Clibrans, Altrincham, Manchester.

Evergreen shrubs for rocky bank (*Nil*). The following evergreen shrubs are likely to suit your soil and locality facing south: Viburnum Tinus, Berberis stenophylla, B. Darwinii, B. Aquifolium, Phillyræa decora, P. media, P. latifolia, Ligustrum lucidum, L. japonicum, Cotoneaster buxifolia and Buxus sempervirens. For a north aspect you may use Aucuba japonica, Berberis Aquifolium, the Phillyræas above mentioned, Euonymus japonicus, E. radicans and Buxus sempervirens. Tree Ivies may also be used with success in both positions, while for a very dry, sunny place the double-flowered Gorse, Cistus laurifolius, and C. recognitus may be used.

Cuttings of Hollies, Willows and Elders (*Nil*).—Cuttings of Willows and Elders may be made at once. They ought to be taken from well-ripened wood of the current season's growth and made about 1 foot in length. These ought then to be planted in a border, in rows, in a slanting trench, about 3 inches or 4 inches of each cutting being left above ground. Make them quite firm by treading, and use light soil in preference to heavy soil. Willows may also be inserted in the places where they are to remain permanently, and growths three or four years old and several feet long may be used if necessary. Holly cuttings ought to be taken during July and August. They may be from 3 inches to 4 inches long, and should be made from half-ripened wood. Insert them firmly in sandy soil under a hand-light out of doors in a cold frame, or in pots. In the latter case the pots may either be plunged in a slightly heated propagating-case or placed in a cold frame for the winter and be transferred to a warm propagating-case in February. Those placed under hand-lights or in beds of soil in cold frames ought to remain undisturbed for twelve months.

Trimming a Yew hedge (*A. R.*).—A Yew hedge may be trimmed at once or left until April, whichever you prefer. The time for cutting is more or less a matter of convenience, though it is usually done during late spring before growth commences or in late summer when the year's growth is completed. A young hedge may be clipped twelve months after it has been planted providing it appears to be well established.

Dark spots on Laurel leaves (*Japan*).—The spotting of the foliage is not entirely due to the attack of a fungus, and is perhaps not, in the first place, the result of that, but is, at least in part, due to the attack of the large numbers of scale insects on the back of the leaves. The leaves should be washed and the scale removed with a blunt stick, and spraying with a nicotine preparation when the young scale insects are about on the trees will be useful. The scales will be found along the midribs of the leaves in numbers.

ROSE GARDEN.

Rose Gloire de Dijon from cuttings (*H. J.*).—You could put in cuttings now, although rather late. Select well-ripened growths springing from other growths. Pull these off so that you have a "heel" or portion of the older growth attached to the younger. Cut this "heel" over smoothly and leave the younger growth about 8 inches long. Plant these cuttings in a border on the sunny side of a wall or fence, if possible, putting some sandy soil about the cuttings, and burying them in the soil so that only about 4 inches or 5 inches protrude. Tread the soil very firmly about the base of the cuttings. If during the winter you find the frost has lifted the plants, push them down again when the frost has gone. Should these fail, which is not very likely, you can put in cuttings in a warm greenhouse in March or April; but the cuttings then should be taken from a plant growing under glass. Cut them up into lengths of 4 inches or 5 inches and insert in sandy soil around the edge of a 5-inch pot. By keeping them sprinkled with water frequently and supplying a nice warmth about the pots such cuttings should root readily. If you had a small frame inside the greenhouse, the cuttings would root more readily if placed in it, especially if the frame was placed over the hot-water pipes. If this could be done and ashes or fibre placed on slates over the pipes, you would have a nice little propagating-frame both for Rose and other cuttings.

About a Rose hedge (*Mrs. M., Reading*).—There are two distinct kinds of Roses, either of which could advantageously be used in the position referred to by our correspondent. The main difficulty is the height; otherwise the choice would be very much wider. If the position is fairly sheltered, the best Rose to use would be one of the Chinas, and of these, if one kind only is to be used (and we think the effect is much better when only one colour is predominant), then Mme. Eugene Resal planted 18 inches apart in two rows * * * * * * * this fashion would speedily make a fine hedge, the rows to be 2 feet apart and 1 foot from the edge of the bed. This hedge would have the advantage of being continuously in flower from June till the frosts come. If more varieties and different colours are desired, then Mme. Laurette Messimy could be planted alternately. The growth and habit of the plants are similar and their flowers form a good contrast. The common Monthly Rose, too, makes quite a good hedge. If the garden suffers at all from late spring frosts, however, we should not advise the Chinas, and in order to get continuous flowering and a growth not exceeding 3 feet, one must go to the Dwarf Polyanthas or Pompons. These make a delightful hedge rather more than 3 feet; but perhaps that would be an advantage. If restricted to one kind only, we should choose Eugénie Lamesch, a good grower, of good bushy habit and very free-flowering. Plant 18 inches apart in rows 2 feet apart. If a mixed hedge is preferred, say, of four kinds, then plant Eugénie Lamesch alternately with Leonie Lamesch in the back row, and Cecile Brunner and Perle d'Or in the front row. It is advisable in order to get good plants to order at once, and a good nurseryman should be chosen, say, either of the Cants of Colchester or the Pauls of Cheshunt or Waltham Cross. On the whole, we think that Eugénie Lamesch by itself will give the best satisfaction. The bed will take fifty plants altogether, twenty-five in each row. No support of any kind is necessary or desirable; certainly not wire. The Pompons or Dwarf Polyanthas will require no training and very little pruning, only the flowering wood or head of the previous year being cut out each spring. The Chinas require moderate pruning only, shoots shortened and dead wood cut out. The Hybrid Teas, if properly pruned, make in some cases a good hedge, but it is difficult to get it close-growing enough, and the effect is more that of a bed than a hedge in the ordinary acceptation of the term. Both Viscountess Folkestone and Mme. Ravary are used for this purpose. They must be planted very close, however, say, 12 inches apart.

FRUIT GARDEN.

What is a Paradise stock? (*Interested*).—The Paradise stock is a selected seedling Apple stock grown specially for grafting bush and dwarf Apple trees on with a view to a moderate restriction of their growth, and also to bring the bushes into bearing earlier. What is called the free stock, and which is generally used for grafting standard orchard trees on, is raised from the Crab Apple. This stock favours freer growth and a longer life to the tree. The Quince stock does the same thing for the Pear tree as the Paradise does for the Apple. This stock is usually grown from layers. The free stock, as regards the Pear, is the Pear stock. There is no reason why your young Pear trees grafted on a seedling stock should not succeed very well. We would certainly give them a trial. Now is a good time for planting.

Vines planted in small border (*Stratford*). No doubt the bulk of the Vine roots have extended beyond the limits of the small border mentioned, and also beyond the gravel walk. If it is possible to divert the walk away from the border, we should particularly advise that this be done. Having cleared the gravel away, take all the top soil away from the narrow border, and also from the space covered by the walk, until a good number of roots have been exposed, then fill in with the following soil compost, to the depth of 5 inches, treading it down firmly: To one barrow-load of turfy loam add a peck of old mortar rubble, a gallon of lime, two quarts of quarter-inch bones and a quart of bone-meal. Mix well together and place on the border in fairly dry weather, if possible. Cover the border over with dry leaves or strawy litter to the depth of 1 foot, and take off early in May to prevent its becoming too wet in winter. As regards your Peaches and Nectarines, no doubt their roots have also extended beyond the border and the walk, and as you say they are doing fairly well, we must assume that their roots have found a congenial soil to grow in. We think you might leave well alone for the present. It is nothing unusual for the best of trees to miss a crop after bearing an over-heavy crop the previous year.

Canker in Apple tree (*J. G.*).—No ground dressing is likely to have much effect on the canker, but attention should be paid to thorough drainage and clean cultivation. Cut out all the dead and diseased parts, and paint over all wounds of any size with Stockholm tar or lead paint. See that woolly aphis is kept down with a strong hand, for that insect carries the pest very frequently.

Shoots of Gooseberry bush for inspection (*Anxious*).—The only fungus present, forming small black fruits on the skin, is one that is practically harmless. The European Gooseberry mildew has slightly attacked the leaves.

KITCHEN GARDEN.

How to grow Mushrooms at home

(*F. V.*).—Collect all the fresh horse-manure available (from corn-fed horses), adding an equal quantity of the short, littery straw which is usually mixed with it. Form a heap of the two together, allowing it to ferment for a week, and then open out to let the rank steam escape. Put the heap up again for the same length of time, opening it at the end of a week, and then putting it up again. At the end of another week the manure will be ready to form the bed. The bed should be 11 inches deep. Its width and length will depend on the quantity of manure you may have at disposal. The manure forming the bed should be rammed as tight as possible. After the bed has been made about eight days it is usually ready for spawning; but before spawning you must satisfy yourself that the heat of the bed is not over 75°, and that it is slightly on the decline. Pieces of spawn the size of a duck's egg should be inserted in the bed (all over it) at distances apart of 9 inches. In the course of another week's time the bed will be ready for covering with soil. It should be covered over half an inch deep, and beaten down hard with the back of a spade. Mushrooms should appear in the course of from six to eight weeks after spawning.

Florence Fennel running to seed (*E. May*).—The Fennel easily bolts, and the bolted shoots should be cut down as soon as indications of bolting are apparent. We should let the present plants remain, as you might not secure a better result by sowing again next year.

Cabbage going to seed (*Cabbage*).—We strongly advise you not to save seed, if ever so favourable, from Cabbage plants that have already flowered and formed seed-pods. Any Cabbage which would do that so unseasonably will probably be worthless. It would be better to destroy such plants now, trusting for seed to those plants which did previously carry good hearts, and next spring will throw flowering shoots and produce seed in proper order. But, after all, is the game worth the candle? You may save Cabbage seed, but what guarantee have you that others near may not have other Cabbages, Savoys, Kales or Broccolis flowering at the same time? And if that be so, your Cabbage stock would certainly be much intercrossed, and possibly be quite spoiled. Cabbage seed costs so little, and seed-growers take such extraordinary trouble to keep it true to variety, that it is far wiser to purchase seed which can be trusted than to save and sow seed which may produce all sorts of things. Proper Cabbages are presumably sufficiently hardy to need little or no winter protection.

Haricot Beans (*J. D.*).—Certainly Butter Beans, both in the runner and dwarf forms, are frequently grown here, but most generally it is the climbing or runner form known as the Merit d'Or which is most favoured. The Butter Bean is also known as the Waxpod. The pods are, as a rule, cooked whole, being stringless, the stem and points being cut off first. The pods should be gathered when first yellow, and not be allowed to get old or stale. The section does not include any that are very free croppers; but, all the same, the produce of a row of, say, 20 feet in length sown on good, deeply worked, well-manured soil and staked to a height of 7 feet is really excellent. The Beans should be sown in the rows from 6 inches to 8 inches apart. The French term all dwarf Kidney Beans Haricots, but the Haricots of commerce are white, and few varieties are better than the one known as Wonder of France. When many pods are formed on a plant the leaves fall. The plants should then be pulled and hung up to dry to ripen the seeds, or Beans may then be cleared from out of the pods. These Haricot Beans should be sown on warm borders. You should be able to obtain seeds from any good seedsman.

MISCELLANEOUS.

Names of fruit.—*Thomas Robinson.*—Red Apple, Hall Door; pale Apple, James Grieve.——*A. J. S., Sherborne.*—Apple Hoary Morning.

Names of plants.—*Marian.*—Probably Senecio mikanoides (German Ivy), but cannot be certain without seeing flowers. It is a South African plant and flowers in winter.——*A. S.*—Eucalyptus Gunnii.——*J. W. Waitt.*—1, Lomaria Spicant; 2, Aspidium aculeatum; 3, Asplenium Ceterach; 4, Polypodium Phegopteris; 5, Cerastium species; 6, Sedum acre (probably); 7, S. rupestre.——*W. H. J. Squire.*—The white flower is Eupatorium weinmannianum, and the grey-foliaged plant is the Cotton Lavender (Santolina Chamæcyparissus).

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY'S CONFERENCE.

A CONFERENCE in connection with the National Chrysanthemum Society was held in the Essex Hall, Essex Street, Strand, London, W.C., on Monday evening, the 5th inst., Sir Albert Rollit, LL.D., D.C.L., in the chair, when papers were read by Mr. Norman Davis, Mr. W. Higgs, Mr. H. J. Jones, Mr. R. F. Felton and Mr. T. Stevenson. The former gave a most exhaustive paper on Japanese Chrysanthemums for exhibition, dealing fully with all phases of their culture. The following were the most salient points in Mr. Davis's paper:

"It may be well to call attention to what, in my mind, is the most important factor in cultivating these plants, namely, to ensure perfect maturity, without which it is impossible to build up huge blooms. In this matter we have to consider how far we can create a luxurious growth and yet mature it in proper time, so that when the period of bud formation comes round the plants are ready to go on with the function of flower-building. In the first place we have to create the plant, and then mature it; and it is on this little word 'mature' that the whole of our ultimate success depends. The function of the plant's life is twofold: (1) To build up its stems and branches, and (2) to develop its flowers; and it can only perform to the full this second function after it has completed the first. Maturity does not altogether mean the ripening of the growth, but rather the completion of its active root growth, for when that has been secured the ripening process naturally follows. Thus, in the treatment of our plants, we have to consider all our points in relation one with another. At the commencement you determine which bud you wish to secure and the date you expect it to form, and in relation thereto you must ensure that the plant is then ready to go on with its development.

"As I have to deal mainly with this one particular section, viz., the Japanese, there will be no need for me to do more than glance at the general details of cultivation. Our first thought is, naturally, soil, and I think we treat this too much from the point of view of its being simply a medium for feeding the plant, whereas the first use of the soil is to hold fast the plant. With a light soil, however rich in plant food, we cannot expect a steady, even growth. Such a soil requires an undue quantity of water, as it has no holding power, therefore a good, stiff holding soil is essential, independent of its feeding properties. Providing it is rendered thoroughly porous, the nearer to clay a soil is, the better Chrysanthemums like it. Many growers are far too elaborate in the matter of drainage, in my mind, greatly to the detriment of the plant. Of what earthly use some 2 inches of crocks are is a puzzle. I never use more than four pieces of crock to the largest-sized pot, and in the early stages none at all beyond a piece of dry manure. There is then no breaking of roots to get the crocks away. I think that the bottom of the pot is just where the plant seeks nourishment. If, instead of using a lot of fine silver sand, you kept the soil open with ordinary ashes from the ash-bin or stokehole you would have little trouble about drainage. I use nothing else except what I put in as food, and I rarely have a pot clogged for want of drainage.

"*Feeding.*—Japanese varieties will take more food, generally, than any other section, being of a grosser growth. We feed gently in the early stage, increasing it during active growth, and gradually reduce again after the main growth is completed. To get full advantage of the food we give, the soil should be in proper condition and of the right texture as already explained. There are the points. We divide our nourishment. Some we put into the soil, and we complete the process in the form of liquids. For mixing with the soil I recommend to each barrow-load of soil: Bone-flour, 1 quart; burnt refuse about 1 gallon; Peruvian Guano, ½lb.; soot, 1 quart. The guano best for our purpose is a low grade, having only a moderate amount of nitrogen, but rich in phosphates and various salts. In potting, except for the very small stage, I do not see why the soil should not be of the same texture, and supplied with the same food all through. Many who write upon this subject seem to think that it is only for the final potting that properly prepared soil is required, for it is only at this stage that they give details for composts. But we want to get luxuriance into our plants from the commencement. For later feeding proceed in the same way: a little in the early stage, increasing as growth goes on. I am reluctant to recommend any particular compounds, of which there are many excellent preparations on the market, especially as I rarely use any preparations of which I do not know the complete nature. Personally I have used for many years little else than Peruvian Guano.

"In giving liquid manure we must take into consideration the fact of what we have already put into the soil, so that after each potting it is best to stay liquid food for a week or so. Guano, as a general food, should be used at the rate of 1oz. to the gallon for the earlier stages, increasing it to 2oz. when in the 5-inch or 6-inch pots, and in the finals till bud formation, then reduce again to 1oz., which continue to the finish. This, however, is not a complete course of food, as during active growth, that is, after the small stage until we stop growth, the plants require a larger supply of nitrogen than we find in the guano. This can very well be supplied by the liquid from fresh horse manure and soot, either given separately or the guano added to it. In the latter case the guano is given in less quantity. Failing this, sulphate of ammonia or nitrate of soda at the rate of half an ounce to the gallon, given in proportion once to twice of guano, one or the other twice a week. After the blooms show colour discontinue the stimulants, only giving the guano, except for an occasional dose of those special chemicals referred to when treating upon colour.

"*Bud Selection.*—We see in our gardening papers numberless questions as to taking the buds of different varieties, and the answers invariably given are the 'hard and fast' unqualified advice of some guide book. How can the same treatment apply to the expert's advanced plants and to the novice's, which are probably only in their infancy? Even to the expert dates for stopping must be largely a matter of district and seasons. A much better guide to place before the amateur is the old system of stopping between the shifts. If you advise stopping, say, for second crown, the plants should be so far advanced as to be establishing themselves in their 3½-inch or 4-inch pots. If for first crown, in which we only just want to anticipate the bud of some rather late variety, then the time to stop is in the next shift—the 5-inch or 6-inch pot. This would be more understandable, but even then the strong plant of the expert and the weaker one of the novice cannot be expected to give the same result. Far better for the novice if he relied upon crown buds throughout, without any stopping. He would certainly have stronger plants and a far larger number of blooms at a given date than he would from any system he does not thoroughly understand. Nor is this all. Under the best of cultivation stopping in the early stages of growth must be detrimental to the plant's well-being. It is a check just at the time we want vigorous growth, and should only be practised when we cannot obtain the same results in some other way, principally by earlier or later striking of the cuttings. Stopping the plants, too, must, under the best conditions, be largely a matter of speculation. We may or may not obtain the results we seek for: when we do not, we blame the season.

"*Damping.*—This is an evil that few growers escape from, losing some of their earlier blooms through scalding. We have it more or less every season, and we cannot shut our eyes to the fact that it is mainly caused through immature wood and over-potting. Some growers call the evil 'sun scorching,' which is hardly correct. Certainly the rise and fall of temperature on sudden sunny days is the time they damp most, although they will do so just the same on dull, warm, close days when it is difficult to move the air.

"The sun does not directly scorch *any* flower. What really happens is that the house goes up to a sudden high temperature, and all those plants having an amount of unripened growth get overcharged with sap, which is forced up to the bloom; then with the sudden lowering of temperature when the sun goes in this sap has no escape, and as it is chemically heated from feeding the blooms scald from inwardly, the sap bursting through the florets. How are we to stay or even modify this evil? I think the first thing that crosses our mind is to shade and keep the house cool when we get these sudden glimpses of sun, although, excepting for this damping or scalding, we can generally do with all the sun we can get at this particular season. But the continual putting on of shading and taking it off again is not always possible.

"The next thing I suggest is to prevent the sudden drop of temperature on these occasions by having the pipes in the house heated at least an hour before the sun goes in, and also, when it does go in, partially lower the ventilators for a time. Thus the more gradual drop of the temperature will save many blooms that might be swaying in the balance. I think at the early part of the season the houses should be kept cool at night. It is far better to have a little cool damp than to fire up and create steam.

"*Colour.*—In dealing with colour in connection with general feeding I find from long experience and trials with various compounds that nothing enhances colour to a greater degree than those salts so freely found in the lower grades of common guano. This guano is the manure from great sea birds which feed entirely upon fish, and their deposits contain these various salts, which, whatever may be their value as plant food, undoubtedly act, as I have said, directly upon the colour sap of the plant.

"*Housing.*—We now come to the last important point, the proper housing of our plants. Failure to observe Nature's requirements in this direction is often the undoing of all our previous work. Plants when placed under glass require just as much light and air as they did when out of doors. It is sometimes painful to see plants so huddled together that all the lower parts of the plants have neither light nor air, and it is impossible for them to perform their functions properly. The leaves from want of light soon begin to droop and fade, mildew becomes rampant and much of the plant's vitality is gone. The result is we see blooms when two-thirds developed unable to get further.

CHELMSFORD AND DISTRICT GARDENERS' ASSOCIATION.

THE ninth of the weekly meetings of the above society was held at the County Laboratories, Chelmsford, on December 2. Mr. C. Simpson presided, and the attendance of the members was small owing to the bad weather. A paper was read by Mr. W. Messenger of Wolverton Park, Ipswich, on "The Cultivation of the Vine." At the commencement of the paper Mr Messenger said he did not intend to take up any time with the history of the Vine, but preferred to devote the evening to the actual cultivation. The first part of the paper dealt with the kind of house best suited for early forcing and for late work. Boilers also were spoken of, the tubular type being specially recommended. Mr. Messenger spoke of the Grape-growing soil, which some of the best exhibitors were, happily, situated upon. The distance at which the rods should be from the roof was mentioned in the paper, Mr Messenger stating that the majority of growers were apt to have the rods too near; he preferred a distance of 20 inches. The subject of temperatures was also dealt with; hard-and-fast or set temperatures were condemned as bad for the Vine growth.

THE GARDEN.

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CONTENTS.

THE NATIONAL SWEET PEA SOCIETY 629

NOTES OF THE WEEK
Forthcoming events 630
Peter Barr Memorial Fund 630
Pear-leaf blister mite 630
Reading Gardeners' Association 630

CORRESPONDENCE
Poisons and Pharmacy Act, 1908 .. 630
New single Chrysanthemums 630
Good Rose plants .. 631

GARDENING OF THE WEEK
For the South and South Midlands .. 631
For the North and North Midlands .. 631

Workers among the flowers 632

FLOWER GARDEN
Seasonable plants and flowers 632
Spanish Iris in a Highgate garden 633
An interesting Australian plant .. 633

TREES AND SHRUBS
Seasonable work among flowers and shrubs 633

GREENHOUSE
Soil for Orchids and its preparation .. 634

ROSE GARDEN
Nabonnand's Roses 635
Rose Mrs. A. R. Waddell (H.T.) .. 635

KITCHEN GARDEN
Notes on vegetables 635

GARDENING FOR BEGINNERS
Garden work week by week 636
Culture of the Marguerite 636
Insect pests on plants and trees .. 637

THE TOWN GARDEN .. 637

NURSERY NOTES
Messrs. Ker and Sons, Limited .. 638

New plants 638

ANSWERS TO CORRESPONDENTS
Flower garden .. 638
Greenhouse 638
Rose garden 639
Fruit garden 640

ILLUSTRATIONS.

Mr. P. C. M. Veitch 632
A border of Spanish Irises 633
An interesting New Zealand plant 634
A winter scene at Kew 635
How to grow Marguerites 636, 637

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

THE NATIONAL SWEET PEA SOCIETY.

THE annual general meeting of the members of the above society, held at the Hotel Windsor, Victoria Street, Westminster, on Thursday of last week, unlike those of previous years, was the occasion of a debate on highly controversial matters, the points raised being of considerable importance to the working of the whole society. Judging by the discussion which took place anent the composition of the floral committee, *i.e.*, the committee which judges the varieties grown in the society's trials, their decisions in the past have not given satisfaction to some members. Whether the dissatisfaction that undoubtedly exists among a section of the members is justified or not does not concern us here; but such dissatisfaction cannot be other than harmful to the society, and for that reason the discussion which took place was opportune, and has, we hope, done something towards clearing away what may possibly have been only misunderstanding.

The proposal, made in a most influential speech by Mr. W. P. Wright, to increase the number of members of the floral committee from twelve to eighteen, with an amateur chairman, half to be amateurs and half to be traders, with the proviso that heads of firms should be eligible for election, was a wise one, and when properly grasped by those present met with general approval. Hitherto there has, apparently, been an unwritten rule that heads of firms should not be elected to this committee, and the decision to now admit these is a step in the right direction. In the past the exercising of this rule has deprived the society of the services of some of the best Sweet Pea growers and raisers in the country, and that in itself is sufficient justification for its obliteration. The suggestion which has been put forward that the floral committee should consist of amateurs only may appear at first sight to be a sound one, but the proposers of such a scheme have evidently overlooked the fact that it would be well-nigh impossible to procure a sufficient number of competent amateurs who have the time, or would feel disposed, to visit the trials when necessary. In these days of unfixed stocks and too-much-alike varieties, it is of the greatest importance that those responsible for giving awards to new varieties should be experts of the first water. Then, again, it is only fair that the seedsmen who support the society so loyally, both in actual work and finance, should be represented on the committee. New varieties must of necessity be viewed from a commercial as well as from an amateur's standpoint, and for this reason we think that it is necessary and desirable to have members of the trade on the floral committee.

Of a far greater controversial nature was the proposal—eventually carried by a majority of five—that any amateur who sold Sweet Peas should not be eligible for election to the floral committee. This is undoubtedly a very important point, but one that we do not think is workable. As soon as an amateur possesses that expert knowledge which will justify his election to the floral committee he will be trying his hand at raising new varieties, and we must not forget that some of the best Sweet Peas that we have to-day have been raised by amateurs, *i.e.*, those who do not grow the flowers or seeds for a living. Naturally, when an amateur does raise a novelty of exceptional merit, he does not feel disposed to give it away, and is quite justified in disposing of the stock *in toto* to a trader without himself becoming a trade grower. Yet the motion that was passed means that an amateur who has done this must not act on the floral committee. It remains to be seen whether the general committee will give their sanction to this proposal or not. If they do, the floral committee will be deprived of the services of the best amateur growers in the country, and as the work of this committee constitutes the most important feature of the society's efforts, its seriousness cannot be overestimated.

The other business of the meeting passed off pleasantly enough. Lady Northcliffe was elected president for the ensuing year, and is the first lady president the society has had. Several new members were added to the general committee in place of those removed under the rule which demands that a member of the committee shall attend at least two meetings during the year, and Mr. G. W. Leak was elected chairman of committee. The most pleasing feature of the meeting, yet one tinged with a certain amount of sadness, was the presentation to Mr. and Mrs. Charles Foster of a canteen of silver, subscribed for by the members as a slight acknowledgment of the valuable services rendered by them to the society in the past. The sad note was the absence of Mr. Foster

through illness, but we are glad to learn he is now on the high road to complete recovery. The valuable services of the hon. secretary, Mr. C. H. Curtis, who was unanimously re-elected, were recognised, on the proposal of Mr. W. Cuthbertson, by an honorarium of sixty guineas, Mr. Edward Sherwood being re-elected hon. treasurer.

The annual report does not present any very striking features, the most important one being that the membership has increased but slightly during the year. Although the exact number of members is not stated, we note that the accession of 166 new members has been heavily discounted by the losses. With so popular a flower this ought not to be. In these days it is impossible to stand still, and every member should do all that is possible to induce others to join the society. Happily, the financial position is a sound one, there being a substantial balance in hand after £50 has been placed on deposit. Following the general meeting a dinner and conference was held, excellent papers on "Judging Sweet Peas" and "Sweet Pea Cultivation" being given at the conference by Mr. W. P. Wright and Mr. George Herbert respectively.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 3, 1911.—Royal Horticultural Society's Exhibition of Flowers and Plants at the Royal Horticultural Hall, Vincent Square, Westminster, S.W., from 1 to 5 p.m.

Peter Barr Memorial Fund.—Bearing in mind the considerable sum of money that would have to be invested for the purpose of providing a gold Peter Barr Memorial Medal annually to be awarded in connection with work among Daffodils, the executive committee of the above fund recently resolved to obtain a Peter Barr Memorial Cup to take the place of the proposed medal, to be held for one year by the person honoured. This will still carry out the principle of the original idea, it will obviate the necessity of forming a memorial trust, and will permit of a larger sum being handed over to the Royal Gardeners' Orphan Fund. The Barr Memorial Fund will not be closed immediately; therefore those who have not done so are invited to send their subscription to the treasurer, Mr. H. B. May, V.M.H., Chingford, Essex.

New glass-houses for Pittencrieff Park, Dunfermline.—A vast improvement is about to be effected in the Pittencrieff Park, Dunfermline, as the Carnegie Dunfermline Trust have decided to erect a new and extensive range of houses there to replace those at present existing, which are of an antiquated and out-of-date character and quite unsuitable for the needs of a public park such as Pittencrieff. The houses will be about 200 feet in length in all, and a corridor of about 20 feet wide will extend along the north end and will give access to the houses. A large central Palm-house is a feature of the plans. The construction will be of the most modern kind, and the buildings when completed will be an ornament to the park. The contract, which involves a sum of about £4,000, has been entrusted to Messrs. Mackenzie and Moncur, Limited, Edinburgh.

Proposed heating of the Waverley Market, Edinburgh. — Frequenters of the great flower shows held in Edinburgh in spring and winter will learn with gratification that the Markets Committee of the Corporation of Edinburgh have under consideration the heating and better ventilating of the Waverley Market. Both are sadly deficient, and at the Chrysanthemum shows of the Scottish Horticultural Association plants occasionally suffer considerably from the low temperature.

Pear-leaf blister mite.—Leaflet No. 239 just issued by the Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W., is devoted to the Pear-leaf blister mite (Eriophyes pyris), its life-history, together with the best methods of combating the pest, being given. Leaflet No. 232 deals with the corky scab disease (Spongospora scabies) of Potatoes. Copies of these and other leaflets can be obtained by applying to the Secretary at the above address, and such letters need not be stamped.

Reading Gardeners' Association. — Notwithstanding the deplorable weather on November 23, the exhibition promoted by the association yielded a net profit of £14 4s., which sum has been equally divided between the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Poisons and Pharmacy Act, 1908.—On Wednesday, the 14th inst., a doubtful point in connection with the above Act was settled by the judges in the Divisional Court. Their decision was as follows: Under the Act of 1868 only a qualified pharmacist could sell poisons, and not an unqualified assistant; it therefore followed that under the amended Act of 1908 only a person licensed by the local authorities could sell poisonous compounds for horticulture and agriculture. Managers and assistants were not entitled to sell unless they held a separate licence. It is to be hoped that nurserymen and seedsmen holding licences under this Act will now take special warning from this decision, and not allow pharmaceutical spies to trap their assistants in the way they have been doing. It is quite clear that all the pharmaceutical spies who have been able to make purchases were strangers to the employés who sold, and if only known persons had been supplied, none of these vexatious and ridiculous prosecutions would have arisen. I am sorry to say that only within the last ten days several agents have been threatened with penalties for not affixing their name and address on the bottles, and here again the purchasers were strangers, and certainly should not have been supplied for this reason. The Traders in Poisons Society are now going to approach His Majesty's Privy Council, asking for greater facilities for obtaining licences and at less expense, so that assistants can obtain licences to sell (under the head licensee) at a very nominal charge.—G. H. RICHARDS.

An infallible cure for canker and woolly aphis.—At this time, when everyone is thinking of preparing for their next year's fruit crop, and when much advice and many recipes are being given for the various pests we have to fight against, I should like to draw attention to a method I have found from experience to be most efficacious against woolly aphis and canker in Apple trees, and, not having seen it mentioned elsewhere, I believe it is my own idea. It is simple, clean, quickly done and cheap, therefore valuable to the amateur. My method is to sear the parts affected by either disease with a blow-lamp such as painters or plumbers use. I treated thus some of the Apple trees in our garden (which were so badly affected by canker that the growths were enormous), with excellent results. The searing chars the diseased bark, and shortly after one can knock off the charred nodules with a blunt knife or other implement. No wound is left such as a sharp knife (which I have seen advocated for canker) makes. For aphis a less severe application of the flame is necessary, only enough to penetrate the cracks where the insects lodge, and anyone can understand that the blight for that season, at any rate, is quite dead.—C. M. B.

Rose Mme. Edmee Metz as a standard. I can endorse "C. T.'s" appreciation of this Rose in this form which appeared in THE GARDEN for November 26. My standards as first-year cut-backs were very floriferous, blooming well both early and late. The last bloom was gathered a few days ago. I found the Rose not at all at its best as a maiden or when grown as a dwarf. I think it would gain greater popularity if the blooms, when grown strongly enough for exhibition, did not lose colour and display a washed-out shade of pink, with a suspicion of yellow tints also in certain stages. Scent not unlike that of the Cowslip is a feature in this Rose.—D., *Southampton*.

New single Chrysanthemums. — It is pleasing to notice in the pages of THE GARDEN the appreciative notes on these popular flowers. Their value as decorative subjects is now recognised, and the cultivation very largely on the increase. The magnificent displays made at the autumn exhibitions of the National Chrysanthemum Society and leading horticultural societies are always a source of interest, and prove attractive to all classes of visitors. At the recent Southampton Show classes were provided for both natural sprays and disbudded flowers; over 100 vases were staged in almost as many varieties. Those interested had ample opportunity to select kinds suited to their individual tastes and requirements. The thread-petalled varieties have also been mentioned. This section contains some charming flowers; they are free-flowering, and usually at their best from the middle of November to the second week in December. Among the most showy are J. M. Cole (canary yellow), Crimson Tangle, Cannell's Favourite (the white Mrs. Filkins) and Bertie Bindon. The last-named is very dwarf, and makes useful decorative plants in 6-inch and 7-inch pots. As cut flowers they are always admired. A vase of Crimson Tangle arranged with suitable foliage is very conspicuous; the colour and form of the flowers invariably attract attention. If not required for a given date, very little is necessary in the way of stopping and timing for decorative Chrysanthemums. To ensure bushy plants the points of the shoots should be pinched out twice during the growing season. All Chrysanthemums pay for good cultivation and respond to generous treatment after the buds are formed. Good flowers of the best type are only produced on well-grown plants.—H. N., *Bournemouth*.

—— In reply to "E. G.," who enquires about new single Chrysanthemums, I give the following varieties. Although some would not be called new, I can thoroughly recommend them all, especially for outdoor culture. Alice White, rosy pink, commences to flower the end of August, lasting a very long time in flower if disbudded, height 2½ feet; Majestic, bright fiery red, turning to rosy red with age, commences to flower the end of August, lasting till the latter end of October if treated the same as the one just mentioned, height 3 feet; and Ruby, a beautiful ruby crimson, height 2½ feet. I should like to draw readers' attention to the three mentioned if only for one reason, and

that is, they throw out from the base about the third week in August, if properly treated, a number of strong shoots, from which the later flowers develop. A few more good varieties are Pathfinder, golden salmon, height 2 feet; Mrs. Earle, pure white, with a rather large eye, height 2 feet; and, last but not least, Marguerite, large starry white flowers very freely produced on stiff stems, one of the best, if not the best, for table decorations. Its one fault is that, if not well grown, instead of being pure white, the flowers come greenish white. Its height is catalogued as 2½ feet, but with me last year it attained the height of 3½ feet. This year it has gone one better, and reached the height of 4 feet. Other good varieties are Dean Swift, bronzy yellow, and Eclipse, rich amaranth, rather large, but very pretty. All the above should be stopped for crown buds.—W. LANGHORN.

—— There is a part of the note by "G. G. H.," page 606, in the issue for December 10 that I cannot agree with. I do heartily agree that the single-flowered varieties should be provided for in our show schedules as much as possible. Committees of Chrysanthemum shows recognise the importance of this and do provide for such classes in their schedules. The committee of the Bournemouth Society is a progressive committee, and does its best to cater for the tastes of all parties, including the children. I exhibited at the first Bournemouth Chrysanthemum show held twenty-four years ago, and ever since I have been in close contact with the society, and I know well that fruits and vegetables, as well as other kinds of flowers, have always been well provided for; but large-flowered Chrysanthemums form the chief attraction of the show now, as they always have done. All Chrysanthemum shows are much alike. If narrow-mindedness ruled, all such societies would quickly come to an end, and rightly so. I do not hesitate to affirm that large-flowered varieties are more popular now than they were five years ago. Exaggeration never advanced any good cause and never will. "G. G. H." says: "In Japan I believe they are grown 2 feet in diameter, but I cannot see any advantage in this great size." Individual blooms are referred to, I presume. Well, the late Dr. MacDonald of Stornoway took one of the books I wrote on Chrysanthemums twice round the world, and then kindly sent me the copy, which I much value. Dr. MacDonald wrote in the book the following words: " . . . Finally, we crossed the Rockies, and from Vancouver sailed across the Pacific to the original home of the 'Kikii' (the Chrysanthemum's name in Japan). In the Imperial gardens at Tokio we saw the Kikii grown in many fantastic shapes, but nowhere did we see such monstrous blooms as at home. After wandering over Japan for seven weeks we crossed the Yellow Sea to North China and Korea. In this latter country we noticed a depraved variety from which we suspect the ingenuity of the Jap evolved the 'Mum as it was on its introduction to Europe." This journey took place in recent years, and the information respecting the Chrysanthemum is obtained at first hand, and is absolutely reliable.—GEORGE GARNER.

Good Rose plants.—In view of the importance of good plants, I have often wondered why the National Rose Society have not added a class at their autumn show for "the best plant." Such an exhibition would educate the public and induce nurserymen to give attention to the roots as well as to the (show) blooms, which appear to have rather monopolised their aims. To the rosarian who has to buy his plants, ripened wood is more than champion prizes, and fibrous roots more than silver medals. I hope "those in high places" will give this essential point their best attention.—J. MORGAN EVANS.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

BORDER CARNATIONS.—During dry, open weather these will greatly benefit if the surface soil between the plants is lightly broken up with the hoe. While proceeding with the hoeing it is advisable to examine each plant, and if found to be in any way loose it should be made firm again with the hand. Occasional dustings with soot will be found helpful to keep down slugs, and it also acts as a preventive against the depredations of birds. If there is any possibility of hares or rabbits getting at the beds, the safest plan is to enclose them with wire-netting. Plants that are being wintered in frames will require an occasional examination, and, should disease appear, dusting with flowers of sulphur will stop it spreading.

Violets.—Strict attention must be given to these when growing in frames, both with regard to ventilating and watering. During bright, warm days the lights should be taken off, and at no time must the plants be coddled. The fact that the plants become dry at the roots is often overlooked at this season; therefore the soil should be examined now and again. All side shoots must be rigorously taken off and the surface soil stirred with a hand-fork. Before watering, a slight dressing of some approved artificial manure will prove beneficial. It is advisable to select a mild day for watering, and the morning is the most suitable time to do it.

HARDY FRUITS.

Winter Spraying.—This is a very important item in fruit culture, and every grower is, or ought to be, aware of the benefits obtained by the practice. For cleansing Apples, Pears and Plums of all lichens and insect pests, caustic alkali is highly recommended. Care must be taken to see that every part of the tree is operated on, and rubber gloves should be worn to prevent the alkali from coming into contact with the hands. For Peaches, Nectarines and Apricots, petroleum emulsion will be found useful for a winter wash, going over the trees two or three times at intervals of a week.

Pruning.—This should be proceeded with at every available opportunity, and efforts should be made to accomplish the work before the end of the year. This advice, of course, does not include Peaches and Nectarines, which must be left till later. The smaller growths of these should be taken off the wall and tied up loosely to the main growths, which must remain fastened, otherwise the winds will break them down.

Gooseberries.—Where these are grown in a netted enclosure, the parts of the framework which were removed when the fruit was all gathered to let the birds in must now be replaced to keep the birds out. Various methods are adopted as protection on open bushes, such as dusting with dry lime and tying them up with hay-bands.

KITCHEN GARDEN.

Potatoes.—A few pots may be planted with an early variety to give a first supply, also a slight hot-bed should be prepared to accommodate a frame for planting at the beginning of the New Year. The sets should be kept in a position where they can obtain plenty of light to ensure strong and sturdy shoots. Potatoes in store will require looking over occasionally, and if they are being kept in a shed it is work for wet days.

E. C. POOLEY.
(Gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

WORK UNDER GLASS.

CLEANSING GLASS HOUSES.—After the bulk of the Chrysanthemums are over is about the best time of the whole year for giving the interiors of all glass houses a thorough clean. There is at this season more space at command for moving plants from one house to another, or at least from one end of a house to the other. This should be done at first, so that the work of scrubbing down all glass and woodwork may be easily and quickly accomplished.

How to Proceed.—There is nothing like a little method in all kinds of work, and the cleaning of glass houses is no exception. Always begin by sponging any plants that may require it. Then wash all pots and remove them to another house if possible. This is a far better plan than leaving the pot-washing till the finish. If newly washed pots are set down on a clean stage they mark it badly; if the pots are scrubbed in advance they are clean and dry when the final arranging comes on. With soap and water thoroughly scrub all the woodwork and glass, and then before it dries syringe down with clean water.

Climbing Plants.—Where there are numbers of climbers on the roofs, much time must necessarily be spent in removing them from the wires to admit of the washing being properly done. If tied loosely in bunches and looped to the wires, there is less chance of any of the shoots being damaged. When retying remove any old, worn-out portions or weak growths, and arrange all the shoots retained in a neat and even manner. Should scale, bug or other pests be in evidence, drastic measures must be employed to thoroughly eradicate them.

Tomatoes.—A steady heat must be maintained where winter cropping is carried on. Care in watering is very necessary, and no overcrowding must be permitted. During winter artificial pollination is imperative, and with a camel-hair pencil this should be systematically attended to every bright day. If there should happen to be a good set, it is well to thin out a little, as every encouragement must be given the remaining fruits to induce them to swell to a decent size. Where a supply of fruit has to be ripe by the end of May, and no special facilities are at hand for rapid forcing, it is well to make a start about this time. Unless, however, a steady temperature of 60° to 63° can be maintained during the next three months, it is hardly worth while to try so early a start. Sow in light, sandy compost, using well-drained, clean 4-inch pots. From twelve to fifteen seeds should be scattered evenly in each. Cover lightly and water with tepid water, setting the pots in a propagating-case for a few days.

KITCHEN GARDEN.

Forcing.—Get in full supplies of Rhubarb and Seakale so as to keep up a steady supply, according to requirements. Chicory roots should also be introduced to a gentle warmth. The best way to force this useful winter salad is to plant it in a deep box with a close-fitting lid, as it is imperative to keep it in total darkness, or the leaves will be spoiled. The whiter the leaves the more delicate the flavour. Mustard and Cress, if sown in shallow boxes of light, rich soil and stood on a shelf in the stove, will soon grow, even at this time of year.

Lifting Vegetables.—During mild weather lift a quantity of Leeks, Celery, Artichokes and Parsnips and store in leaf-mould in a cool shed, so that there need be no trouble during hard frost in keeping up supplies.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

WORKERS AMONG THE FLOWERS.

MR. P. C. M. VEITCH.

PROMINENT among those who have devoted their lives to horticulture is Mr. P. C. M. Veitch, head of the well-known nursery firm of Messrs. R. Veitch and Son of Exeter. Since quite an early age he has lived, as it were, among plant-life, and relates with pleasure his recollections of plants growing in his grandfather's Exeter nursery at the time of the latter's death in 1863. One of these was a fine plant of Clianthus Dampierii, which was growing outdoors against a wall, and the other, Mutisia decurrens, that was against an old building in the Rhododendron dell. Early in his career it was decided that Mr. Veitch should be trained for the seed trade, and with this end in view he worked for some time in the seed warehouses of Messrs. Jacob Wrench and Sons and Messrs. James Veitch and Sons of Chelsea, and subsequently spent some time in seed-growing establishments in Germany and France. During the summers of some of these years Mr. Veitch spent a good deal of time in the new plant department at Chelsea under George Taylor and at Coombe Wood under Ramsay, and it was at the latter place that his fondness for hardy shrubs was developed, a partiality that has been retained ever since.

From 1875 to 1878 Mr. P. C. M. Veitch, chiefly on account of health, travelled in Australia, the Fiji and South Sea Islands, Borneo and the neighbouring islands, and collected many plants. In the first year he spent some months in visiting the islands of the Fiji group, and the whole collection of plants made by him was afterwards destroyed in a gale. He subsequently collected in the South Sea Islands, and the plants so obtained arrived safely in this country in 1877. In the early part of that year he proceeded to New Zealand, making a special journey to Mount Cook, where he collected seeds of the beautiful Ranunculus Lyallii, known in New Zealand as the Mountain Lily or Rookwood Lily. Plants from these were raised and flowered. From other parts of New Zealand several species of Celmisia, Veronica and the beautiful Notospartium Carmichaeliæ were obtained, all of which now find a place in many private gardens. In 1877, as Mr. Veitch was making his way to New Guinea, he was shipwrecked off the north coast of Australia, and his journey was then diverted to Borneo, where he joined F. W. Burbidge, and made with him a journey up the great Bornean mountain Kina Balu, and shared the honour of sending home to Messrs. James Veitch and Sons of Chelsea the giant Nepenthes and other fine plants of that region. He afterwards visited Penang, Sumatra and Singapore. In 1880 he returned to Exeter and entered into partnership with his father, and at the latter's death became the sole proprietor. With such an experience, it is not surprising that he has a real love for, and perfect knowledge of, the habits and characteristics of so many of the species now growing in his nurseries.

During the time Mr. Veitch has been head of the firm he has himself raised or introduced to commerce many new and excellent plants, notable among them being Rhododendron Dr. Stocker, the new hardy hybrid Calceolaria Golden Glory — a promising new Calceolaria with bronze red flowers, which makes a large bush and produces its flowers freely from June to October, is now being tested; Hydrangea Mariesii Veitchii, Erica Veitchii, Escallonia exoniensis, Veronica F. W. Meyer and V. Veitchii (a very intense blue-flowered species). In addition to herbaceous plants and shrubs, vegetables also receive much attention from Mr. Veitch, and we need only mention that those excellent Peas Exonian, Express and Glory of Devon emanated from his nursery, and among fruits that fine Peach Late Devonian, to show what is being done in these directions.

A hobby of Mr. Veitch at the present time is the propagating or raising from seed of such out-of-the-way plants as Mutisia decurrens, Dendromecon rigidum, Dracæna indivisa vera, Myosotidium nobile, Fremontia californica, Abies bracteata and other conifers. During his career Mr. Veitch has made many friends, all of whom, we are sure, will join with us in wishing him many years of continued happiness in work that is to him a labour of love.

THE FLOWER GARDEN

SEASONABLE PLANTS AND FLOWERS.

TO those who in thought can look back upon the decades of the past—to the time, indeed, when midwinter flowers were ever at a premium, when a solitary button-hole flower of a double white Camellia would easily realise half-a-crown, and frequently quite double that sum, and when much heat was required

MR. P. C. M. VEITCH.

to get the early white Azalea into bloom for the festive season of the year—and return as by a bound to the present and see the rich harvests of fruits and flowers with which our chief markets are daily supplied, the change must appear remarkable indeed. Such a change, however, has not come about in a year, or even in a decade; rather has it been the growth of years, that steady, upward and onward movement which marks progress and which also marks the expansion and development of every industry. The home growth and expansion of the fruit, flower and plant trades of these islands have increased presumably only in proportion to the requirements of the times, accelerated in all probability by education with all its elevating and refining influences, and not a little also by a steadily increasing fondness for the natural and the beautiful as opposed to the artificial.

Time was, of course, as I have already hinted, when the latter—the paper garlands and the rosettes—dangled chiefly from cottage wall or oaken beam, and, accompanied by Mistletoe and Holly, ever reminiscent of the festive period, played their part uncommonly well. They served, indeed, to mark a special time, and brought pleasure and delight into many homes. To-day in large degree we look to the more natural beauties of plant or flower life, we see the faces of living things, we note their graces and their charms, we feel the breath of their fragrance around, and are impressed with a real, if undefinable, pleasure which makes the joy of being doubly great.

In like manner our pleasures of to-day are increased because of the variety which abounds, and which, while sufficiently large in good things to suit even the more fastidious of flower-lovers, is vast enough to permit of many a choice bit finding its way into the more unpretentious of English homes. To some extent this is, of course, not due to home supplies; rather is it the result of flower-farming on a large scale in Southern France and other favoured places, where the supplies of such things as Paper-White Narcissus, Anemones, Violets and Freesias are not only much in advance of our own, but in advance also of those crops which follow at a somewhat later date from the Channel Islands and from the earlier districts of England. And if these vast supplies from foreign sources are not to be regarded in the light of an unmixed blessing so far as the home grower is concerned, yet, viewing the matter in its wider sense, such flowers do unmistakably in many an English home account for much pleasure and afford not a little brightness where otherwise these things would not be found. And it is just possible—indeed, highly probable—that the very presence of this wealth of cheaper flowers in our markets at this season may create a following of its own, causing some who have never gardened before to make a beginning the end of which it is not easy to see.

Roses, too, we get from foreign sources, and these, like the Freesias and other flowers already noted, are cherished because of their fragrance, if not for their unsullied beauty. For, after all, the foreign supplies do not—cannot—equal those grown at home, the crude packing of the former—"cramming" would be a more descriptive word—of so many dozens of freshly gathered flowers into Rush or other baskets leaving no alternative but the crushing and partial spoliation of quite a large number. Hence the best flowers of the English grower are seen to greater advantage, for not only does their superior culture stand revealed, but the perfect packing of such things must be an object-lesson to all. The high excellence that has been reached in this direction is perhaps only known—best known, certainly—to those handling large consignments daily, the goods appearing as they did at the moment of leaving the factory.

My object at the moment, however, is not so much to discuss the producing side of the subject as to suggest what is possible of accomplishment with the available material of the present time. Take the popular Perpetual-flowering Carnation, for example, of which a splendid exhibition has been held during the past week. Here were to be seen the results of revolutionary work indeed, the flower having been raised from its former "button-hole" insignificance to a popularity which promises to extend to all temperate regions. It shares with the Orchid the latter's high place in aristocratic circles, while surpassing and eclipsing it in its boldness, its variety of colour, its "lighting-up" attributes, fragrance, charm and general utility. The former meagre-sized blossoms have given place to a handsomeness commanding attention and admiration from all, to a length and boldness of stem—not unmixed with elegance or grace—fitting them for associations of the best, while the

enhanced beauty of their colours as seen under artificial light place them on a pedestal of their own. Moreover, in the informal character of their flowers there is artistic merit alone; that something which enables the artist floral decorator to make much of, that something, too, which is precluded from other flowers of the same tribe whose machine-cut rotundity and regularity of outline know not change nor variety. These, then, are the Carnation flowers for which we plead, flowers suited to big vases in sitting or dining room, the flowered plants meanwhile, in scarlet, white, pink of many shades and cerise—the two last-named notable for their colour-warmth and brightness—playing their part in the not far removed greenhouse or conservatory.

Next in importance—one might have given it an "equal first" but for the objections raised to such in some quarters—is the Chrysanthemum, a flower which, if greatly revolutionised in the past, is still in some respects in the evolutionary stage. Time was when the "big bloom" was a craze; time is when flower-heads of smaller size and infinitely more "decorative"—this from two points of view—are quite the order of the day. Singles, too, are gaining favour and, varying from purest white to brightest crimson, afford enough choice for all. In other directions there are whites, bronzes, pinks—Chrysanthemum, not Carnation, pink—and richest yellow galore. These are excellent in the cut state, valuable to the purchaser because of their long endurance.

In Lilies we have quite a modern line, and now their handsome, imposing and fragrant flowers may, as the result of a far-seeing horticultural skill, be had at all seasons of the year. Nothing more chaste, beautiful or artistic than these could possibly be desired, and during the weeks immediately preceding the Christmas festival nothing is greater in demand. In each case their value is enhanced by boldness of stem, while the accompaniment of good leafage is ever a valued attribute. The ubiquitous Lily of the Valley, more popular than ever before, perhaps, knows no special season, and may be had practically throughout the year. Scarlet Raspail Pelargonium is an indispensable flower. An unusual subject, seen more frequently in the large private garden than the market, is Euphorbia fulgens, whose gracefully arching stems, studded with axillary clusters of scarlet bracts, wrongly styled flowers, render it unique.

Of Orchids the hybrid Cypripediums are the most popular and durable, and are disposed of in their thousands and tens of thousands, the chief growers sending them direct to their destinations. Then there are pot plants, Roman Hyacinths, Van Thol Tulips, and Lily of the Valley among forced flowering plants, together with soft-wooded Heaths, Skimmias, Aucubas, Ferns and Palms in variety, and many more. E. H. JENKINS.

SPANISH IRIS IN A HIGHGATE GARDEN.

THE above beautiful flower has very aptly been termed the "Orchid of the Garden." Truly it is amazing what huge spikes and gorgeous flowers emerge from such tiny bulbs. The culture of this Iris is so well known that nothing need be mentioned upon it here. The pretty little vista shown in the accompanying illustration was obtained by standing on the croquet lawn—alongside of which the border runs—and looking through the Rose pergola towards the orchard. Happily, the Tea Rambler Roses were in full bloom, thus enhancing the background effect of the picture. To the writer the rarity of the presence of this plant in gardens is puzzling. Can it be that its cheapness and simplicity of management are not realised by the general public?

Highgate. C. T.

AN INTERESTING AUSTRALIAN PLANT.

(ACTINOTUS HELIANTHII.)

I AM sending you a few pressed flowers of a well-known plant about here, which, to the best of my belief, is but little known in England. The plant is Actinotus Helianthii, popularly known as the Flannel Daisy, and is fairly common near Sydney; but its limits of habitat in the wilds are surely becoming restricted, probably for the reason that, as it is a showy and long-lasting flower, and large quantities are collected each season and sold cheaply in the streets, the plant, not being amenable to cultivation, is neglected, while bunches of flowers can be bought or gathered so easily. Flower-gatherers are a careless lot, and wherever they make regular excursions the Actinotus gradually disappears.

It is a tomentose shrubby plant, erect and slender, but sometimes spreading, resembling a Chrysanthemum somewhat. The leaves are greyish on the upper side, whitish underneath. The flowers are Daisy-like, from 2 inches to 4 inches across, but more generally 3 inches, with eight to twelve petals and a round, projecting, woolly disc. The seed ripens very often, but germinates rather sparely unless fresh. The pressed flowers may change colour, but the fresh flowers are snowy white and of a texture like flannel. The plant is never a strong rooter, and the roots are few, woody and susceptible to being disturbed.

The specimens I send were collected from sloping sandy ground lightly shaded, of which nearly an acre was ablaze with them—a sea of tall branching stems bearing the large white flowers 4 feet or 5 feet high, and some higher. It was the only occasion on which I saw them in quantity, and this because they were on private land fenced around, and so protected. They grow only in loose sand and leaf-mould or sand mulched by a deposit of woody *debris* in a light or half-shaded position rather moist than not, but do not thrive in a dry or wet extreme. They never grow on stiff loams; always sand and mould. Only small plants or seedlings can be transplanted successfully, and it appears to do best near the coast. It is, however, not susceptible to heat, and I cannot say if it is affected by frost, as it is rare here. The climate of Sydney is rather milder than Algiers, or 63° Fahr. mean annual, with 48 inches of rain yearly, yet subject to dry, hot spells. This may help a grower of Australian plants; but as Actinotus Helianthii is a native of the South as well as the North, it should be hardy in the South of England, and would prove a choice subject.

Boronia serrulata is another interesting plant, a bright pink, sweetly scented species making showy bunches, its chief shortcoming being that it is sickly and delicate, slender and dwarf generally, but it is much stronger when found growing on retentive soils or clays partly sheltered by scrub on bleak flat portions of the country. It is very local, being found only between the Hunter on the North and the Clyde on the South. It is difficult to establish by transplanting, and the flower-gatherers are gradually exterminating it by tearing the plants up by the roots. It is choice not only by reason of its distinct perfume, showy colour and local nature, but also on account of its doubtful future, more doubtful than that of the Waratah (Telopea speciosissima). Seeds of many of these plants are procurable in Sydney very cheaply, and I am willing to assist any of your readers with regard to the Australian native flora, which is deserving of more consideration from plant-lovers.

Sydney, N.S.W., Australia. W. G. BOYLE.

A BORDER OF SPANISH IRISES.

TREES AND SHRUBS.

SEASONABLE WORK AMONG FLOWERS AND SHRUBS.

HERBACEOUS BORDERS. — Newly made borders, or borders containing plants recently divided and replanted, will require little attention beyond affording light protection to the most tender subjects during very severe frosts. These borders may with advantage be given a light surface stirring with the Dutch hoe, should a few fine days occur after a spell of wet weather. Borders containing established plants may be forked over, taking care not to damage any roots or bulbs in the process. Where a mulch

of manure has been applied, this will be turned under the surface and the borders made clean and tidy. If from any reason a mulch was not given, and it is desired to afford food for the plants, some short manure may be forked into the borders at this time. Every attempt should be made during the dull days to render the garden as attractive as possible.

The borders containing shrubs may also be forked over, but previous to this any necessary pruning or thinning of the branches should be carried out. It is imperative that all pruning of shrubs be carefully done. Use a saw for large branches, afterwards paring over the cut surface with a sharp knife or chisel. Shrubs recently planted, especially choice or rare subjects, should have a mulch of manure left around them until all fear of damage being done by frost is past; the same applies to protection which is afforded to the branches of the same plants. When forking over borders containing choice conifers, remember that their fibrous roots are very near the surface, and avoid disturbing them. Some established varieties of the conifers may need a certain amount of pruning to preserve a symmetrical outline of growth. Do not cut away more than is necessary to produce the desired result.

Shrubs may still be planted; but some, such as Hollies, should be more generally planted in April, when better results follow than when planted at an earlier date. When planting large shrubs, which are liable to be blown about by the wind, provide stout stakes and secure them from damage. When replanting large specimens which have lost a number of roots in the process of removal, cut out a proportionate number of branches so as to secure an equal balance between root and top; this is a material aid to the successful establishment of the subjects, and when carefully done the plants may often be improved in shape by this process.

Suckers growing from the roots of all grafted plants should be removed. Clear away the soil where necessary, and cut these back as hard as possible to the stock. Rhododendrons are sometimes ruined by suckers being allowed to grow to such an extent that little but a mass of them exist where originally a number of the best varieties were planted. To prevent this state of affairs an annual inspection (at which all shoots springing from the base of grafted plants are cut away) should be rigidly carried out.

Intending planters of shrubs, both evergreen and deciduous, should ascertain what varieties succeed best in their neighbourhood. There is abundance of material to select from, and a visit to a good nursery is both interesting and instructive. Most firms welcome visitors who are really interested in the plants, and I know of no better way of selecting plants and shrubs.

COLIN RUSE.

THE GREENHOUSE.

SOIL FOR ORCHIDS AND ITS PREPARATION.

TO the beginner this problem often proves a perplexing one, and it is in reply to several amateurs who have remarked to the writer at various times that, although the chief cultural items are given regarding Orchid-growing, the actual preparation of the compost is usually omitted, that the present article is written. In glancing through the advertisements of THE GARDEN I notice the names of several firms who can be relied upon to send the best material, which is all-important when attempting to cultivate any member of the great Orchid family. It is a far cry since this interesting branch of horticulture was taken up, when tan beds were used, followed by teak-wood baskets and sphagnum moss at the suggestion of the late Dr. Lindley. Peat was eventually introduced, also leaf-soil, both of which were successful to a certain extent, till now we have different fibres at command that are employed by all the leading growers.

Sphagnum Moss.—This should be procured in a fresh state and all sticks and weeds removed, afterwards giving it a wash in clean water to take away slugs and small snails, which are often brought into the houses through this agency, and do a great amount of injury to tender flower-spikes and young, succulent roots.

Peat.—At one time this could be bought more cheaply and of better quality than now; and till the introduction of Osmunda and Polypodium fibres the demand, so far as good peat was concerned, exceeded the supply. The best for Orchids is that containing the most fibre, which is pulled into pieces about the size of a large Walnut and all the rhizomes and fine particles sifted out, when it is ready to be incorporated with other constituents. The rhizomes are often selected for drainage purposes in place of potsherds; but if this method is adopted, care must be taken to see that they are thoroughly dried before being used.

Osmunda Fibre.—Peat has been largely superseded by this excellent rooting medium; in fact, with the majority of Orchids, particularly epiphytes, it forms the bulk of the compost, while some successful growers use Osmunda fibre only for the strong-rooting Cattleyas and allied genera. It is essential that a good grade be secured, and it must be stored in a dry and well-ventilated shed till it is required for use, or a white fungus appears a few weeks after the plant has been potted; but even this ought not to cause any anxiety, because it gradually dies out and no harm accrues. Osmunda fibre will be received in lumps, and it will depend upon the size of the plants to be potted whether it must be cut up fine or left in larger pieces. Whichever is necessary, there will be practically no waste, and in this respect it differs considerably from peat. The growth made in this fibre is firm and solid if the plants are not excessively shaded; but it must be pointed out that soil is not the only item to be considered if success is desired, as watering, ventilation and atmospheric moisture, must all receive careful attention from the cultivator.

Loam.—For terrestrial Orchids, such as Cypripediums, Calanthes, Cymbidiums and others, a little loam may be mixed with the compost, but only the best should be chosen, and this must contain a large amount of fibre not too much decayed. Oak or Beech leaves are sometimes advised for Odontoglossums, Miltonias and Oncidiums, but only in a small proportion to the other ingredients. These are collected in the autumn and stored till required, when they are rubbed through a half-inch sieve, and the dust sifted out. To keep the soil open and in a porous state silver sand will be needed, also some finely broken crocks, which are prepared in a similar way to the leaves.

SENTINEL.

AN INTERESTING NEW ZEALAND PLANT: ACTINOTUS HELIANTHII.

(*See page* 633.)

THE ROSE GARDEN.

NABONNAND'S ROSES.

HAVING frequently noticed comments upon General Schablikine and other good Roses sent out by M. Nabonnand, I thought I would look up some of the best of this raiser's introductions, more especially because they are all purely decorative varieties and good garden Roses. I find a list of sixteen that are almost indispensable, and propose noting them as they were sent out.

The first is Comtesse de Panisse (1877), a bright flesh with a tinge of copper. Franciska Kruger (1879) is another coppery yellow with peach shadings, one of the most perfectly formed Roses we have. Papillon (1882) makes a good pillar Rose when well established, and is a semi-climber. The flowers of this vary between pink, white and copper, and are carried in large, spreading trusses; it is not much more than semi-double and a grand variety to cut from. Papa Gontier (1883) is a general favourite with its long, pointed buds of rosy crimson, making an ideal coat-flower. Georges Nabonnand (1887) is superb; a good doer, with handsome foliage; long buds of pale salmon yellow borne throughout the whole season, and especially good late in the autumn; quite one of the best garden Roses grown. This was followed by General Schablikine (1897), another grand garden Rose of coppery red colourings and a capital grower. Lucy Carnegie (1898) is pale carmine rose with yellow centre, long buds and very free. General Gallieni (1899), a deep crimson tinted with blood red, is a very unique flower and a hardy grower. Comtesse Festetics Hamilton is a bright carmine with coppery centre, deeper on the edges of its petals. Noella Nabonnand (1900) is almost a climber, certainly a strong pillar Rose. This is intense velvety crimson, only semi-double, but has very large flowers and petals, beautiful in the bud. The following are also climbing and pillar Roses: Bardou Job (1887), almost single, a bright glowing crimson with very large petals, sometimes flushed with purplish maroon; quite unlike any other Rose grown. L'Ideale (1887), yellow and metallic red, streaked and splashed with golden yellow; beautiful in the bud and very sweet-scented. Lady Waterlow (1902), clear salmon pink with carmine edges, large and free, almost evergreen. The last on my list is Reine Olga de Wurtemburg (1881), a vivid red, semi-double flower, and one of the best for arches and pillars. So we see all of this raiser's Roses are decorative; not a so-called show variety among them. A. P.

ROSE MRS. A. R. WADDELL (H.T.)

FROM a colour point of view, nothing attracted so much attention during the summer as this Rose. Of course, the Lyon Rose would naturally be singled out, for it possesses not only exquisite colouring, but beauty of form also. But there is in Mrs. A. R. Waddell that intensity of apricot colouring almost undefinable that is very striking in the loose-petalled flowers, which unfold much more slowly in the cooler temperature of autumn. The growth is so good, as vigorous as that of Mme. Ravary; in fact, it is almost a semi-climber. The young shoots are of a lovely purple shade, and the stems also have a ruddy hue, which still further adds to the beauty of colour. As an autumn variety it is superb, and will be grown in large numbers as a bedding Rose of great excellence. The fruity fragrance would suggest a relationship to Soleil d'Or; but there is no resemblance whatever in growth, foliage or bloom. It is one of the most marvellous colours that M. Pernet-Ducher has yet given us. P.

THE KITCHEN GARDEN

NOTES ON VEGETABLES.

SEED POTATOES.—We shall not, of course, be planting our Potatoes for many weeks to come; but it is, nevertheless, excellent practice to select and commence the preparation of the tubers required for the purpose. When the weather is too bad for outdoor operations and tasks indoors do not press unduly, the opportunity should be seized to pick out the seed sets. These should be the finest that can be found in the store. This does not mean that they must be the largest, but that they shall be perfect in shape according to the variety, shallow in the eye and free from all traces of disease or scab. As a general rule, a set weighing 3oz. will give the finest returns; but it is immaterial whether they are a shade lighter or heavier. To prepare them for planting, they should be up-ended in shallow boxes and placed in the lightest available position, where they can have the benefit of unlimited supplies of fresh air and unobstructed light without the danger of frost.

PROTECTING CELERY.—It is always a wise precaution with this most important winter salad to have at hand material with which the plants can be efficiently protected when severe frosts are imminent. Hay, straw, Bracken—in fact, anything that will answer the purpose—should be in some convenient spot, since the plant is indisputably tender, and if the frost once finds its way into the tops there will be small prospect of preventing complete loss. It is well, too, in cold, heavy soils and wet districts to lay the leaves over a little on the tops of the ridges, to prevent in some degree, if not entirely, rain rushing down into the hearts of the plants, as this will most assuredly conduce to rotting.

DIGGING AND TRENCHING.—When the soil is frozen as hard as a macadamised road, it is obviously impossible to proceed with any form of land-working, and the same state of affairs accompanies excessive wetness; but whenever the weather is favourable and the state of the ground will permit, digging and trenching should be pushed forward with all speed. Let [illegible] (accordingly) with the trench[illegible]

THE SEED ORDER.—Unless festivities absolutely occupy the whole of Christmas Day, an hour or two might well be spent in preparing the seed order for immediate despatch. It is, of course, quite clear that most of the seeds will not be actually required for another three months; but if the order is placed early the seeds will come to hand in good time, and will, therefore, be ready for sowing immediately the correct moment arrives. It is the rule of all such reputable seed houses as wisely advertise their wares in the columns of THE GARDEN to execute the orders in rotation, according to date of receipt, and the first-comers are, therefore, the ones who are served earliest. Unfortunately, many people wait until the day before the seeds should be sown before sending their orders, and then, because they do not receive the parcel, they promptly abuse the seed merchant, which is manifestly unfair, as it is impossible for him to keep abreast of the rush of business at that season of the year. If the order is posted for delivery on the last day of the year it is by no means certain that the seeds will [illegible] within a fortnight or even three weeks; but the fact that it has been sent thus early will ensure everything being in hand when required. Upon receipt the goods ought to be carefully checked with the invoice. H. [illegible]

A WINTER SCENE AT KEW: CHRISTMAS ROSES AND HARDY FERNS IN THE WOODLAND. (*See page* 637)

GARDENING FOR BEGINNERS.

HOW TO GROW MARGUERITES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—It is a common practice to decorate the dwelling-rooms with evergreens at Christmas-time, and those persons who possess gardens in which there are evergreen trees and bushes growing will, no doubt, cut off branches and use them for the embellishment of their rooms. In carrying out this work it is a very easy matter to spoil the general appearance of a choice specimen shrub; but if thoughtful care is exercised, a straggling plant may be considerably improved, especially by the removal of shoots that overhang paths, lawns or flower-beds. On no account must the leading shoots of shrubs and trees be cut off. The work of planting new hedges may be attended to when the weather is favourable. Some persons are very fond of raising up banks on which to plant the Thorns, Hollies, Privets and Laurels, but this must not be done without due consideration. Where the soil is naturally light or sandy, it must be deeply dug or trenched prior to the planting of the Quicks, and some rotted manure well mixed with the soil will do a lot of good. For division hedges especially banks are not needed. Put in the young plants on the level ground; then the result in years to come will be satisfactory. Of course, where the soil is of a clayey nature, a slightly raised bank will be necessary, and it will be advisable to have a fairly broad bank quite 3 feet wide at the top. Narrow banks are not serviceable, as the sides crumble away in due course, the roots of the plants get exposed, and continuous patching is necessary. For inner division fences one kind of plant should be used, such as Privet, Holly or Laurel; but in the case of outer boundary fences strong protection is required, and double rows of Thorns and Privet mixed, or Privet and Myrobalan Plum, or the latter and Thorns, form satisfactory hedges. All rockeries must be now cleaned before the New Year comes, as their neat appearance adds much to the general nice condition of the garden.

Vegetable Garden.—Owing to the constant rains during the past two months, the soil, especially in low-lying and clayey districts, has remained in a very wet condition. Probably many Peas and Broad Bean seeds have rotted in the ground; and if this is the case and the cultivators are anxious to have very early produce, no time should be lost in sowing more seeds both in the open border and in small pots or turves in cool frames. Where the seeds are sown in the open border at this season, it is a wise policy to cover them with a good layer of dust-dry soil before the ordinary garden loam is replaced. Young plants now appearing above the soil must be partially covered with sifted ashes to prevent loss through slugs eating off the tops, and also as a protection from frosts. The ashes must not be new ones, but those that have been exposed to the air for several weeks. Admit air to Endive in frames and clear away any decaying leaves, else the whole of the plant may be lost. All straw and litter used for the covering of vegetables and frames must be kept as dry as possible; then it will keep out more frost. Mushrooms in frames must be well covered at this season. Lift another batch of Rhubarb clumps, and expose them to the weather for a week or so before placing them in the forcing-house.

Fruit Garden.—Young fruit trees planted about six weeks ago should be carefully examined at once. When newly shifted soil is exposed to rains for a long period it quickly settles down again somewhat firmly. The roots of the young trees naturally settle with the soil, too, and it may be that many of the stems of the trees will be far from being upright. In such a case no time must be lost in putting them straight again, as young trees growing much to one side look very bad indeed. Put them right when the soil is fairly dry and do not unduly tread it down, else the roots will not permeate it freely. If any old specimens are removed and young ones are put in to take their place, be quite sure that all the old roots are taken out, and at least put in some quite new loam in place of some of the old removed. In the case of stone fruits, a good sprinkling of lime on the soil as it is being turned over will be beneficial.

Greenhouse and Frames.—At this season the greenhouse should be maintained in as bright a state as possible. The earliest bulbs should be brought in from the frames and grouped on the stage or mixed with Ferns and similar decorative plants at the front. Zonal Pelargoniums grown in the driest part of the structure will add brightness to the appearance, as also will the scarlet bracts of Poinsettias and the brilliantly coloured berries of Solanum Capsicastrum. In order to maintain the supply of bulbous flowers, the batches of plants in the frames must have the benefit of more light. Acacias in pots must be very carefully watered and kept away from open ventilators; then the flowers will last longer.

A. A.

1.—CUTTINGS BEFORE AND AFTER ROOTING.

CULTURE OF THE MARGUERITE.

THE Marguerite is a member of the Chrysanthemum family and is regarded by many as the shrubby Chrysanthemum. There are several varieties now in general cultivation. The original of the type is known by the name of Chrysanthemum frutescens, and this plant bears the well-known white flowers with a yellow disc or centre. A popular member of the same family is a variety known as Branching Etoile d'Or. It flowers more or less continuously for nine months. There is an ordinary variety named Etoile d'Or that is quite as free-flowering as the branching form. Both have yellow flowers of a pleasing tone of colour. A newer sort distributed a few years ago by Messrs. Sander and Sons of St. Albans is a distinct acquisition, and under good culture is an exceedingly chaste and beautiful plant. This new variety is known by the name of Queen Alexandra, and is said to have originated in South Africa. The flowers in most instances differ from the ordinary Marguerite, having a crown-like or Anemone-formed centre that adds very materially to their attractiveness.

2.—YOUNG PLANT PINCHED BACK TO ENCOURAGE BUSHY GROWTH.

The Marguerites are frequently described as Paris Daisies. While these plants are regarded with favour for embellishing the greenhouse and conservatory, they also make capital window plants. Market-growers know the value of this subject, as there is always a ready sale for well-grown plants at a figure that usually gives them a fair margin of profit. They are grown very extensively in many of the better market nurseries, and plants of large size and beautiful form are developed with comparative ease. Most text-books tell the reader that cuttings should be inserted in July and August. Others advise the propagation being done in early autumn, saying, further, that mid-September is quite early enough to begin this operation. It will thus be seen that opinions differ. Providing the necessary stock of cuttings can be procured, propagation may be done at almost any period, for the Marguerite is a most accommodating plant. During the development of these young plants the temperature of the glass structure should be maintained at from 35° to 40° by night and 45° by day. An unduly warm temperature is undesirable. So soon as these young plants have well filled their pots with roots, they should be repotted into 5-inch pots, and afterwards returned to shelves near to the glass or stood on pots on the side benches of the greenhouse as near to the glass as convenient. Watering must be carefully observed; the plants do not need the soil to be saturated, but enough

water should be given to moisten the soil throughout. Not until these plants are well rooted should manure-water be applied, and then only in weak doses at first. It is a good idea to vary the manure-water from time to time, and to apply this in rather weak doses.

Readers who have a few old plants that may be used for stock purposes may begin operations at the present time. Cut back the old growths, and in a few weeks these should bristle with desirable new growths. Early in the New Year an ample supply of these young shoots should be procurable from old plants that have been wintered in the greenhouse. These should be detached when 2 inches to 3 inches in length and be made into cuttings. Fig. 1 represents on the left a shoot of recent development that has been removed from an old plant, and on the right of the same picture is a cutting nicely rooted that has been properly prepared, cut through just below a joint and the lower leaves trimmed off. These cuttings may be inserted in sandy soil in boxes if a large number of plants are required, or in small pots if only a few plants are needed. Water in and keep close until rooted. Rooted cuttings should be potted up singly in 3-inch pots, using a compost made up of two parts turfy loam and one part well-decayed horse or cow manure and a small proportion of sand, all well mixed together. To ensure the development of plants of a bushy character, it is a good plan to pinch out the points of the young plants so soon as they are established in these small pots, say, ten days to a fortnight subsequent to the repotting. The young shoots that make growth 3 inches or so in length should in turn be stopped. When ready for the next repotting—and this is determined by the pots being well filled with roots—place the plants in pots 5 inches in diameter, using similar compost to that previously recommended. Pot with tolerable firmness, otherwise the result will not be satisfactory. If larger plants than usual be desired, those of the character portrayed in Fig. 3 may well be repotted into 8-inch pots with considerable advantage. The bushy character of the last-mentioned plants is due entirely to the pinching of the shoots being observed as advocated herein. Guard against insect pests by a timely fumigation of the house at intervals, and in the event of the larvæ of the Marguerite fly attacking some of the leaves, directly the maggots are discernible crush them with the finger and thumb, or liberate them with a penknife and destroy them. Badly infected leaves should be picked off and burned. D. B. C.

INSECT PESTS ON PLANTS AND TREES.

NEARLY all kinds of insect pests increase in numbers rapidly during the summer months, and although they can be killed then by the use of fumigating and vaporising materials, there is no time better than the winter for getting the branches thoroughly cleansed. In the winter the wood and the leaves are harder than in the summer-time, and stronger doses of insecticides can be used. I will briefly describe some of the insects that should be dealt with now, and give a few hints as to the best way to get rid of them.

Mealy Bug.—This is a very repulsive insect, and one that is extremely difficult to clear from plants when once it attacks them. These insects are white and generally surrounded by a woolly substance. They lodge themselves in cracks and under loose bark, in the axils of leaves and in the opening flower-trusses. If one insect is left on a plant it will breed rapidly in spring and soon overrun a large plant. Fir Tree Oil and other insecticides advertised in THE GARDEN, if used according to the instructions given, will kill the pests. One wineglassful of paraffin thoroughly mixed in three quarts of water and put on with a sponge or small brush will also kill them. If paraffin is used, the liquid must be kept off the tender young leaves and shoots.

Brown Scale.—As its name implies, this insect is brown in colour and clings to the branches of the plants and trees. The insects are generally found on Peaches, Nectarines, Apricots, Plums, Cherries, on climbing stove and greenhouse plants, on Crotons, Dracænas and similar plants. The same kinds of insecticides may be used as recommended in the case of mealy bug; but it is really necessary to use a somewhat hard bristle brush, so as to thoroughly free the branches of the pests, and also to syringe the branches with clean water to make sure of washing away all traces of scale from them.

Thrips.—These insects are pale yellow in colour in a young state and turn to a dark brown, or almost black, when fully developed. They usually cluster together on the under sides of the leaves. Every leaf badly affected falls off. Fuchsias are very subject to attack by thrips, and I advise all inexperienced gardeners to be sure that all faded leaves on stored plants are gathered carefully and burned. Stove and greenhouse plants should be sponged if thrips are found on them. Two ounces

3.—A WELL-DEVELOPED PLANT. NOTE HOW NUMEROUS ARE THE SHOOTS IN CONSEQUENCE OF PINCHING OUT THE GROWING POINTS.

of soft soap dissolved in two quarts of hot water will prove useful for our purpose. All plants so treated must be syringed afterwards with clean warm water.

Red Spider.—These insects are very small and numerous. They infest the leaves of fruit trees and plants of many kinds. Where possible, clear away and burn affected leaves, and use the soft soap solution, with 2oz. of flowers of sulphur added, for sponging purposes. Also, as spring comes, prevent a too dry atmosphere in plant-houses by judicious damping, and so prevent any serious spreading of the pests. SHAMROCK.

THE TOWN GARDEN.

THE CHRISTMAS ROSE.—Speaking to a lady acquaintance some years ago of the value of the Christmas Rose at the festive season of the year, enquiry was made as to whether the plant really flowered at the time stated, and, the answer being in the affirmative, she decided to have some, and requested that I should obtain supplies. I did so, had them well and carefully planted, and when a year later the plants gave promise of a good flowering I saw them and remarked upon their success. My lady friend was, however, all disappointment; she had, indeed, expected a Rose with thorns, and knew nothing of the plant so highly popular under the foregoing name. "But why is it called a 'Rose' when it is not a Rose?" she enquired, and "Could not a better name—one less misleading—be given it?" My answer that the name was an old-standing one, by which the plant was known far and wide, did not appear to afford comfort to one who still insisted that it was wrong to call it a Rose when it was not. I subsequently learnt that much time had been spent in touring a small garden in quest of a Rose that was expected in bush form and to be quite prompt and punctual in its flowering on Christmas Day.

A SEASONABLE FLOWER.—Not many of my readers will, I think, be in the same confused state of mind in regard to the above popular and seasonable flower as the lady friend to whom I have referred, and whose seriousness and disappointment were remarkable. The plant is one of great value for the hardy garden, worthy of all care and consideration, an old-time favourite, and one whose ruddy-tinted buds and blossoms awaken thoughts of the great festival so near at hand. A bowl of its blossoms and leaves—the latter always sparingly cut because of the injury their loss inflicts upon the plant—never fails to attract in the sitting-room, and those who are fortunate possessors of clumps that yield them by the score have reason to be proud of such in a twofold way at this season. I have previously urged their protection by hand-lights, so that an unimpaired purity may be theirs, a system far better than the not infrequent advice of lifting and potting, with all its attendant injuries and poor results. There is both character and charm about this midwinter flower which artists love to portray, and those who know the plant, know of its established beauty, its freedom of flowering and its hardihood can never appraise it too highly or accord this flower of distinction a welcome greater than its merits justify.

ITS POPULAR NAME.—In my experience, so far as I remember, the instance I have referred to as taking exception to the popular English name of the plant is quite singular, a large proportion of those who indulge in open-air gardening agreeing as to its appropriateness. Popular names are not, of course, wholly above criticism, though in this case we have one suggestive of the season of its flowering, and not inapt if we consider the ruddy tints of the blossoms at certain stages. Moreover, the name appeals to all because of its simplicity, and we desire nothing better. We cling to it, too, for old time's sake, mindful of the pinafore and belt days when we knew it by no other, and when the more cumbrous, less euphonious title of Helleborus niger might have been disputed by us had it been thrust upon our notice. In short, if all the so-called English popular names of plants were half so appropriate or sentimental as this one, one would find no fault and would refrain from a word of criticism.

WHERE TO GROW IT.—Christmas-time is not the best time to plant the Christmas Rose—the time of flowering, or bud formation, or development is certainly *not the best time* to transplant any subject, and our favourite is no exception. Yet calendar writers almost without fail recommend the lifting of the plants at this particular season. The whole thing is a mistake, wrong in principle, unmistakably so in practice. August and September are the months for planting, and there are none to equal them. As to "where to grow it," the plant delights in hilly districts and rather holding limestone soils, and partial, not absolute, shade. The illustration on page 635 gives a good idea of the value of these flowers in the woodland during the winter months. E. H. JENKINS.

NURSERY NOTES.

MESSRS. KER AND SONS, LIMITED.

MOST of the large nursery firms of this country, while devoting a considerable amount of their energy to the raising of general nursery stock, also specialise in one or two particular lines, and the old-established firm of Messrs. R. P. Ker and Sons, Aigburth Nursery, Liverpool, is no exception to this rule. Their speciality is Hippeastrums, or hybrid Amaryllises as we were wont to call them, and there are comparatively few of our readers who at some time or another have not seen the magnificent flowers exhibited by the firm during the winter and spring months.

Having a few hours to spare when visiting the agricultural show at Liverpool in June last, we decided to have a look at the nurseries, and thus see for ourselves what is being done for the advancement of horticulture. Naturally, most of the Hippeastrums were at rest, but a few plants were still flowering, and we saw one that must surely create a record. It was a crimson-flowered seedling, and although the bulb was only in a 6-inch pot, it had four stout stems, each surmounted with four large blossoms, so that this plant could boast a total of sixteen fully developed flowers at one time. We saw a vast quantity of seedlings that were still growing vigorously, these being planted out on raised platforms, five houses 50 feet long and 20 feet wide being devoted to them. It is the proud boast of Mr. Ranger, the chief manager of the nursery, that every Hippeastrum is quite free from mealy bug, a pest that most of us know is particularly partial to these plants and exceedingly difficult to eradicate once it gains a foothold. Many of these seedling Hippeastrums are sold before they flower, and as the seeds are selected from the very best named varieties only, customers stand a fair chance of obtaining something specially good.

Gloxinias, Cyclamen and Calceolarias are other indoor plants that Messrs. Ker specialise in. At the time of our visit the Gloxinias were superb, and a beautiful crimson type named Aigburth Scarlet was particularly attractive. Calceolarias for seed purposes were past their best, but we could see sufficient flowers to justify us in recommending the strain, the plants being well branched and of a decidedly good type. Palms are also grown in large quantities, and we noticed a few particularly good examples of that rare kind Cyrtostachys Renda duvivierianum, the scarlet leaf-stems of which are most effective. Phœnix Roebelinii was also there in abundance, and the gracefulness of this Palm has already rendered it a great favourite for decorative purposes, notwithstanding the fact that it is a comparative new-comer. Dracænas, Clivias, Anthuriums, Pandanuses, Alocasias and other kinds of stove plants the firm is able to supply in almost unlimited quantities, and among the occupants of the cooler houses we noticed a fine stock of Lapagerias, both white and red forms, and also the blush pink Marguerite Queen Alexandra.

In addition to a large area of glass, Messrs. Ker have an extensive outdoor department devoted chiefly to trees and shrubs and herbaceous plants. Of Hollies we saw an excellent stock, Ilex Hodginsii thriving remarkably well. This the firm considers to be one of the best for planting in cities and large towns where the atmosphere is none too favourable for plant growth. Lime trees of all kinds, shapes and sizes were in flourishing condition, and the Blackley variety of the Black Italian Poplar, a very robust, spreading variety that is largely grown in the district, was in fine form. This variety is said to have originated near Manchester, and is one of the best trees for congested districts. Golden Yews in bush and standard form, Ivies of various sorts in large quantities, including the beautiful Hedera dentata variegata, a large stock of a particularly good type of golden Privet and a fine lot of bush and climbing Roses were other shrubs that called for special mention. Among a good general collection of herbaceous plants the Delphiniums were very good, some beautiful flowers being among those that we saw. Evidently Messrs. Ker spare no pains in growing the best of everything that they trade in, and for Hippeastrums alone they have a reputation that they are justly proud of.

NEW PLANTS.

THE following awards were made by the Perpetual Flowering Carnation Society on December 13:

Carnation Lady Alington.—This variety has already been granted an award of merit from the Royal Horticultural Society. In colour it is a delightful shade of bright salmon pink, which looks remarkably well under artificial light. The flowers are of good size and full in the centre, and they are very sweet-scented. It was awarded a first-class certificate. Shown by Messrs. Stuart Low and Co., Bush Hill Park Nurseries, Middlesex.

Carnation R. F. Felton.—This variety also secured a first-class certificate. It was raised and shown by Mr. H. Burnett, St. Margaret's, Guernsey. The flowers are similar in colour to Mrs. H. Burnett, rosy pink. It is Clove-scented, and the individual blooms are from 3 inches to 4 inches across. A vigorous grower and perpetual flowering.

Carnation Mrs. Crook.—This is by no means an easy colour to define. It is described by the raisers, Messrs. Stuart Low and Co., as "a distinct and beautiful fancy variety, having a ground colour of pale crimson heavily veiled with a profusion of rich crimson." It is a very free-flowering variety and sweet-scented. Award of merit.

Carnation Rex.—A good pink variety, with fimbriated petals. The flowers are of average size and of good substance. There are, however, many varieties of a similar colour already in cultivation. Shown by Mr. C. Engelmann, Saffron Walden.

First-class certificates were granted to the following American Carnations, all of which are already in commerce: Mrs. C. W. Ward, Pink Delight, Scarlet Glow, Niagara and White House.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Plants for border (*Edith H. L. Lydall*).—The difficulty rests chiefly with the Lime trees, which, apart from their shade-giving proclivities, are great robbers of the soil, and send their root-fibres to considerable distances. Seeing that a double line of the trees are in existence, we fear that anything we might recommend would become leggy, as the Violas have done. At the sunny end, if this is not encumbered by tree shade and roots, you might grow the hybrid Columbines in variety, many forms of border Campanula, including Canterbury Bells, Gaillardias, Cornflowers, Coreopsis, Rudbeckia, Scabiosa in mauve and white, red and white Valerian, Kniphofias, Lychnis chalcedonica, Poppies of many kinds, Agrostemmas, Michaelmas Daisies, Globe Flower, Foxgloves, Jacob's Ladder, Goat's Rue and a great variety of things, those named being easily raised from seeds. For the remainder you had better try some of those we have named, in addition to the planting of Galtonias, Lilium croceum, L. umbellatum and others that, while not objecting to shade, are not so fastidious concerning poor soils.

Lobelia gone wrong (*X. M. D.*).—We are unable to divine the cause of the failure, which must be due to some local influence of which we have no information. There was no fungus present at the collar of the plant, which was also well rooted. If the plants have not had strong manures, we should incline to the opinion that they had been frequently visited by some domestic animal.

Plants for rockery (*S. W.*).—It is doubtful whether you will get anything to thrive on your rockery if the plants you enumerate will not grow. Why not endeavour to make it more productive by removing some of the poor soil, and filling up between the stones to a good depth with good soil? You may, however, try double-flowered Gorse, Genista hispanica, Cistus villosus, C. ladaniferus, C. recognitus, C. laurifolius, Sedum acris, Saxifraga cordifolia, Iberis sempervirens, Red Valerian, Saxifraga oppositifolia and various Yuccas for the background. Many thanks for the report on your Prunus Pissardii.

Plants for border (*Britannia*).—If we rightly understand your requirements, Helenium Riverton Gem, with crimson and yellow flowers, and Pyrethrum uliginosum, white, the latter behind the former, would look well. Both are rather vigorous and tall. Lilium tigrinum speciosum and L. speciosum cruentum would also look well. Any success depends much upon the exact nature of the border, and you appear to have many shrubs near. Then, again, some Sunflowers, as well as Michaelmas Daisies, are weedy; others are striking and good. If you will tell us the width of the border, the quality of the soil and the space the required plants are desired to fill, we will consider the whole question again.

Delphinium nudicaule (*Miss W. T.*).—This is a tuberous-rooted species of about 18 inches or so in height, and has the reputation of being a poor doer. For garden work the plant is best regarded as a biennial—though it is not strictly so—raising the plants from seeds and growing the seedlings quickly to the time of flowering. Slugs are particularly fond of its roots when the plant is at rest, and, eating away the crown shoots, practically ruin it. By sowing the seeds in early summer thinly in boxes of soil or pans, and carrying the seedlings over the winter, a good flowering should follow in the ensuing June. By sowing early in the year the plant inclines to flower in November or later. The plant prefers a light soil and a warm, sunny spot.

THE GREENHOUSE.

Oleanders not flowering (*H. J. S.*).—The Oleander needs fairly liberal treatment in order to develop its blossoms, for, though apparently in good health and the flowers form, a little extra stimulus is often needed to induce them to expand. If the plants are out of doors during the summer, a spell of cold weather will sometimes so arrest the development of the blossoms that they make no further headway. On the other hand, they will often open perfectly out of doors. We advise you early next spring, if in your opinion the plants need shifting into larger pots, to repot them. A mixture of good fibrous loam, leaf-mould and sand will suit them well. The roots, if healthy, will soon take possession of the new compost, so that in all probability before the flowers expand it will be as well to give them an occasional dose of weak liquid manure. If the plants are in your opinion in sufficiently large pots, the necessary additional stimulus may be applied either in the shape of liquid manure or one of the many concentrated manures that are now so popular. We have been several times consulted as to the non-flowering of Oleanders, and our

advice to treat more liberally has in nearly all cases given satisfaction. As the Oleander is a native of the sunny districts bordering on the Mediterranean, it must not at any time be too much shaded.

Repotting Agaves (*A. T.*).—The best time of the year to repot Agaves, both green and variegated, is in the spring. The most suitable compost for them consists mainly of loam, lightened to the necessary extent with leaf-mould and sand. Agaves may be kept in small pots for a long time without injury, but, on the other hand, if they are shifted into larger ones they grow quicker. When repotting in the spring, any new shoots should be removed from the parent plant and be potted singly. These will make pretty little plants the first season. The term "cool conservatory" may be taken to indicate a structure absolutely without fire-heat even during the winter months, in which case Agaves would not be suitable plants to recommend, as they must be kept safe from frost during the winter. At that season the soil in the pots will need to be kept fairly dry.

Chrysanthemums failing (*G. S.*).—We do not find any eelworms in the Chrysanthemum roots, but they appear to be quite dead. Have they had an overdose of liquid manure or been too heavily watered at some time?

About Nigella and Primula Forbesii (*No Name*). — The Nigella appears to be N. damascena, though extra large for that kind. The fragrant-leaved plant, No. 2, is Melissa officinalis variegata. The flowers of Primula Forbesii are of their usual size, the species being noteworthy because of its profuse flowering during autumn and winter than for anything else. It should be given the protection of a cool greenhouse.

Curious Carnation flowers (*W. B.*). — The malformation is due to the repeated production of the bracts, which normally occur in pairs just beneath the flower. It is known as the Wheat-ear Carnation, and similar growths are fairly often met with in other species of Dianthus, the Sweet William, for instance. When a plant once produces these growths it rarely forms flowers of the normal kind, though these are occasionally produced.

About Chrysanthemums (*B. M.*).—The plants should have been disbudded last August. All you can do now is to remove any small weak buds and throw the vigour into the stronger ones. A temperature of 55° by night is too warm for Chrysanthemums, 5° less being quite sufficient. A free circulation of air is very necessary in order to keep flowers and foliage in good condition. We do not know what you mean by black spider; but if you refer to the black aphis or fly, this can be destroyed by vaporising with the XL All Vaporiser. You may use this once a week till the pest is destroyed, but we have used it for years and always found one application sufficient to destroy green fly. Thrips and mealy bug need more.

Aralia with small leaves (*A. T.*). — Aralia Sieboldii (Fatsia japonica) is very liable to produce the small deformed leaves such as those sent when it is about to flower. There is little doubt that this is the cause of yours doing so, especially as it naturally blooms in the autumn. We have one planted out which is behaving in a similar manner You ask if it would be better to keep Aralias out of doors during the summer, and we say decidedly, yes, provided they are well supplied with water. What is more, they are hardy in London, and where conveniences exist for planting them out, this may be done when they get too large for indoor decoration. You may see numerous thriving examples of Aralia Sieboldii that have stood out for several winters very near your address, namely, at Battersea Park.

Chrysanthemums failing (*Mums*).—We have carefully looked through the stems and leaves of the Chrysanthemum you were good enough to send for our inspection, and we are of the opinion that the cause of failure must be attributed to the very heavy character of the loam that you have used in your compost. The sample of the latter that you included was extremely hard and uncongenial, and this, together with the cold and moist season of the past summer, is largely responsible for the condition of your plants to-day. Under no circumstances should you pot your plants as firmly as most growers do, otherwise you may be courting failure. We note that you have potted "harder"; this is quite a mistake. Can you not obtain loam from another neighbourhood? We fear you will never do much with the soil of which you sent us a sample.

When to pot Vallotas (*W. W.*).—If you are enabled to give the plants a good light position in the greenhouse during the winter, the best time to repot them is as soon as they have done flowering. If, on the other hand, the accommodation is not so good, the better way will be to leave the potting till the end of February or in March. At the same time, one essential point to bear in mind in the culture of Vallotas is that they much resent being disturbed at the roots, on which account they should not be repotted unless it is absolutely necessary. Provided the roots are healthy they will stand for years in the same pot, even when the original bulb has formed several offsets and they in turn have reached flowering size. When in this stage an occasional dose of liquid manure during the growing season will be beneficial. As may be understood, in the case of plants that will probably remain a long time in the same soil it is very essential that the compost be of a lasting nature—that is to say, such as will retain its sweetness and porosity for years. Good, fibrous loam of a fairly holding nature, such as is generally termed yellow loam, should form the major portion of the compost. This may be lightened to the necessary degree (which depends upon the consistency of the loam) by well-decayed leaf-mould and sand.

ROSE GARDEN.

Rose hedges (*Wingati*).—Rose hedges are generally of two classes: (1) The moderately high hedge growing, say, to a height of 4 feet to 5 feet, and (2) the taller hedge. For the first-named no support is necessary. Have the soil trenched a yard in width, and work in manure liberally. Plant the Roses in two rows, thus—* * * * *—the rows being about 15 inches apart and the plants 2½ feet apart from each other in the rows. The first season it is best to cut the plants back to about 3 feet from their base, and subsequently, when they become at all bare at the base, cut one or two growths quite down to the ground-level. China or Monthly Roses make a fine hedge. Austrian Briars, too, are very beautiful, especially the single yellow and copper. Then the rugosa or Japanese Roses are frequently used. For larger hedges and screens the ground should be prepared the same, but stout poles or iron uprights with feet must be placed at intervals of about 9 feet, and should stand about 6 feet or 7 feet out of the ground. To these should be attached four rows of strong galvanised wire. Only one row of plants is necessary, and these can be planted 4 feet to 5 feet apart. If you desire a perpetual-flowering hedge, you could not do better than plant Grüss an Teplitz, or, if you preferred to mix a white Rose with it, then Mme. Alfred Carrière would be a good one. Trier would make a beautiful hedge of about 5 feet to 6 feet in height. But perhaps the best Roses for a real nice screen are the wichuraianas, such as Alberic Barbier, Leontine Gervais, Dorothy Perkins, White Dorothy, Hiawatha, Minnehaha and Gardenia. They are prodigious growers, and would easily make a screen 20 feet high if necessary. Then there are the beautiful multiflora or rambler Roses, of which Blush Rambler, Crimson Rambler, Tausendschön and Goldfinch are excellent; and the sempervirens and Ayrshire Roses, of which Flora, Bennett's Seedling and Félicité Perpétue are the best. Last but not least are the Penzance Briars, Roses that make grand hedges either dwarf or tall. They often have a tendency to become bare at the base, but this can be remedied by cutting down each year one or two of the oldest growths.

Twenty-five best exhibition Roses (*Komani*).—We are glad to know you find THE GARDEN so helpful to you in South Africa. Doubtless many Roses we should call good exhibition Roses here would be too thin for your climate, but we have pleasure in naming twenty-five good reliable sorts, including some of the latest novelties. Bessie Brown (H.T.), creamy white, very double; Mildred Grant (H.T.), ivory white, tinted peach; Dean Hole (H.T.), silvery rose, very fine; Frau Karl Druschki (H.P.), pure white; Caroline Testout (H.T.), bright pink; Mrs. J. Laing (H.P.), rosy pink; White Maman Cochet (T.), creamy white; Mrs. W. J. Grant (H.T.), rose; Cardinal (H.T.), rosy crimson; William R. Smith (T.), ivory white and cream; Florence Pemberton (H.T.), creamy white; Medea (T.), pale yellow; Mme. Constant Soupert (T.), coppery yellow and pink; Lyon Rose (H.T.), apricot and salmon pink; J. B. Clark (H.T.), scarlet-crimson; William Shean (H.T.), pink; Queen of Spain (H.T.), pale flesh; Mrs. Maynard Sinton (H.T.), silvery white, very large; Mrs. Theodore Roosevelt (H.T.), bright flesh; Mrs. Walter Easlea (H.T.), crimson-carmine; Mrs. Herbert Stevens (H.T.), nearly pure white; Melanie Soupert (H.T.), pale yellow; Mrs. A. E. Coxhead (H.T.), crimson; Molly Sharman Crawford (T.), pure white; and Mrs. E. J. Holland (H.T.), salmon rose.

Roses for south wall (*Rose*). — Four good varieties that would yield beautiful flowers for cutting would be Climbing Caroline Testout, François Crousse, Climbing Kaiserin Augusta Victoria and William Allen Richardson. Four good varieties to grow in tubs would be Alberic Barbier, Dorothy Perkins, Lady Godiva and Hiawatha.

Pruning Roses upon walls (*F. J. Staples*).—It is a good plan to cut out some of the old wood during September; then the cutting back of the laterals is best deferred until March. Box edging should be regularly clipped each year, the spring being the best time. Stretch a line the whole length of the edging, fixing the line the desired height, and then clip both sides and top very neatly.

Roses planted against Currant bushes (*Anxious*).—We advise you to move the trees further away from the Currant bushes. Probably a good dressing of one of the remedies now so plentiful for destroying insects would suffice, but if the trees had more room we think they would be a greater success. You should take the precaution to spray the Roses next season with acetate of lead paste, a poisonous article very effectual in the destruction of maggot.

Lavender hedge and Roses (*K. M.*).—Two year old Lavender plants are the best to buy. To form a good row in a short time they should be planted 1 foot apart. A pretty, small, rosy pink Rose to plant in front of it would be the Dwarf Polyantha Rose Phyllis. The following are among the best climbing Roses for planting at the back of the Monthly Roses: Alister Stella Gray, Blush Rambler, Crimson Rambler, Dorothy Perkins, Electra, Hiawatha, Mrs. F. W. Flight and Paradise.

Rose Jersey Beauty failing (*Putney*).—Probably there is canker at the junction where the plant was grafted. It appears as though it was a pot-grown specimen, and these have a tendency to canker; or perhaps the ball of earth is dry and the plant is suffering from drought. There was no signs of tumour in the portion of growth sent us. Try a good soaking of water, and afterwards mulch the soil. If it does not improve, prune back hard next spring, and probably the new growths will be all right.

Rose leaves blighted (*Hussar*). — The foliage sent appeared to have been attacked mainly by the Rose slugworm. It is the larvæ of one of the sawflies, and it devours the upper epidermis and tissues of the Rose foliage, leaving intact the lower epidermis. We do not think spraying with soft soap solution would have any injurious effect either on the foliage or the soil, but we think you would find Hellebore wash a very effectual remedy for the pest. Take 1oz. of freshly ground Hellebore, 2oz. of flour and 3 gallons of water. The Hellebore and flour are mixed together with a little water, and then mixed with the rest of the three gallons. It must be constantly stirred, and applied with a fine sprayer.

The Seven Sisters Rose (*Brighton*).—There is a deal of confusion regarding this Rose. We do not think the variety you describe as "having small, green, jagged leaves, very dark, almost thornless wood, and growing very bushy, with flowers white to blush rose," can be the Seven Sisters Rose; neither can we imagine what it can be, unless it is one of the old-fashioned varieties of Rosa alba. Perhaps you could obtain a piece of its growth from your friends in Norway; we might then be able to help you to get its correct name. The Seven Sisters Rose, or one most nearly like it, is known as Rosa multiflora De la Grifferaie. This has very dark leaves, but its growth is strong, almost rambling, and the flowers are more pink than white.

Pruning Monthly Roses (*Burton*).—If you refer to the common pink Monthly we do not advise much pruning. Just top the shoots, and one or two of the strong growths may be cut down within 5 inches or 6 inches of the base each year. This produces a more bushy growth from the base. Other Monthly Roses of the hardier type, such as Old Crimson, Fellenberg and Armosa, are practically treated like the common pink, but the kinds known as China Teas, such as Comtesse du Cayla, Laurette Messimy, Queen Mab, Aurore, Mme. E. Resal, &c., are best treated as Tea Roses, leaving one or two of the ripest growths as long as possible if uninjured by frost, and the others cut back fairly hard. Of course, you would not prune until the latter part of March and early April.

Selection of Roses for Rose garden (*J. G. M.*).—We have much pleasure in submitting a list of suitable bedding Roses for your new Rose garden. No. 1 bed (white and blush): La Tosca, Mme. Antoine Mari, Pharisaer, edged with Polyanthas Katherina Zeimet and Mignonette. No. 2 bed (red and crimson): General Macarthur, Liberty, Richmond, Papa Gontier, Hugh Dickson, Lady Battersea, Laurent Carle, Chateau de Clos Vougeot, edged with Polyanthas Perle des Rouges and Mme. N. Levavasseur. No. 3 bed (apricot and yellow): Betty, Mrs. Aaron Ward, Marie van Houtte, Mme. Ravary, Melanie Soupert, Mme. Hoste, Lyon Rose, Lady Roberts, Joseph Hill, Le Progres, edged with Polyanthas Eugenie Lamesch and Perle d'Or. No. 4 bed (pink): Caroline Testout, Mme. Abel Chatenay, Mme. Jules Grolez, Lady Ashtown, Killarney, Gustav Grunerwald, Dean Hole, Mme. Lambard, La France and Earl of Warwick, edged with Polyanthas. Some very showy wichuraiana Roses for pegging down would be Hiawatha, Lady Gay, Dorothy

Perkins, White Dorothy, Elise Robichon and Alberic Barbier, and standards of wichuraianas could rise above those pegged down, or you could have standards of Hybrid Teas and Teas, which would, perhaps, be more suitable.

Fungoid growths on roots of Rose trees (*D., Southampton*).—The fungoid growth would probably arise from the decaying rootstock. When the Briars are cut from the hedgerows it is usual to leave rather a large portion of the old rootstock attached to the Briar. It frequently happens that part of this rootstock is in a decaying state, and unless this is cut away and only live root retained the decay would spread and cause the bad odour you complain of. The marks upon the roots were probably there when the trees were planted. Unless great care is exercised in digging up a standard Rose, its roots are apt to receive injuries which would not show immediately, but after being planted some time the lacerations would become more manifest. We think that, after the dressing of lime which you have given, insects would not be the cause. It is just probable that rats might search for bone soon after it had been applied, but even then they would not go deep enough to get at the roots. When replanting the Roses it will be a wise plan to dress the soil with some good insect destroyer, of which you will see particulars in our advertising columns.

Trellis of Roses by lawn tennis courts (*A. M.*).—We think you could not do better than have young Larch poles with the spurs left in for the uprights. A height of 9 feet out of the ground would be about right and 3 feet in the soil. If the ends of the poles are placed inside a drain-pipe and the crevices filled with cement they last much longer. Spanish Chestnut poles are really more durable than Larch. A distance of about 9 feet between the poles would, we think, be about right, and you could have two cross pieces in between each two in order to steady the wire-netting. If the latter were bevelled somewhat the appearance would be better than a straight line, and some stout wire or rope could be looped between each pair of posts on which to tie the growths of the Roses if necessary. Where the drop comes between the lawn tennis and croquet ground could be rectified by having these poles 11 feet out of the ground instead of 9 feet. Plant strong-growing Hybrid Perpetual, Bourbon and Hybrid Tea Roses, such as Hugh Dickson, Frau Karl Druschki, Ulrich Brunner, Mrs. Paul, Mme. Isaac Pereire and some of the strong-growing Monthly Roses, such as the common pink, Laurette Messimy and Fellenberg. A good selection of fast-growing climbers and ramblers for the poles would be as follows: Dorothy Perkins, Alberic Barbier, Reine Olga de Wurtemburg, Paul Transon, Mme. A. Carriere, Gardenia, Lady Godiva, Hiawatha, White Dorothy Perkins, American Pillar, Electra, Climbing Testout, Rubin, Félicité Perpétue, Carmine Pillar, Lady Gay, Gloire de Dijon, Longworth Rambler, Jersey Beauty and Perpetual Crimson Rambler.

FRUIT GARDEN.

Grapes on lower shoot of Muscat Vine not setting (*F. T. P.*).—The case you bring before us is an interesting one, and, on the face of it, difficult to solve. Possibly your surmise is right, namely, that stock influence may be the cause. The cap or sheath which covers the pollen on the anthers of the flowers in some varieties of Grapes is more of a sticky or glutinous nature than others, thereby preventing the pollen from distributing itself so early and so freely as it otherwise would. This, if the sheath is not removed artificially, would affect prejudicially the setting of those Grapes.

Apples Blenheim Orange and Ribston Pippin doing badly (*A. N. S.*).—Your land being very rich and light may have had something to do with your Blenheims and Ribstons cankering and doing so badly, but we suspect that the American blight had a big share in causing the trouble. This hateful pest, wherever it lodges and is left undisturbed for a considerable time, inflicts wounds on the bark of the tree, leaving the branches affected an easy prey to canker and ugly scars. So you must declare war against it and rid your garden of its presence, or your Apple trees will never be a success. In planting your next trees, plant them, if possible, in turfy loam, without any manure except a quart of bone-dust to mix with the loam for each tree, also the same quantity of lime. Be careful not to plant too deep in such soil. Of Apples, as pyramid trees we recommend the following: Dessert—William Crump, Ellison's Orange, Worcester Pearmain, James Grieve, Charles Ross, Barnack Beauty and Duke of Devonshire. Cooking Apples—Potts' Seedling, Stirling Castle, Grenadier, Lord Derby, Golden Noble, Lane's Prince Albert, Newton Wonder and Bramley's Seedling. The following is the best wash you can use to spray your Apple trees with: Arsenate of soda (pure or crystalline), 3½oz.; acetate of lead, 7oz.; water, 10 gallons. Dissolve in water and add 1lb. of treacle. Wash the trees now, and again a few days before the flower-buds burst open.

Will squirrels eat Apples and Pears? (*Mrs. Le C.*).—We have no recollection of suffering damage from squirrels eating the above fruits, but we have often in the case of Peaches, Nectarines and Apricots. We are far from saying that they will not eat these fruits, but we have not known them to do so. Will any readers give their experience in this matter?

Six eating Apples suitable for a bracing climate (*T. H. B.*).—Mr. Gladstone, ripe in July and August; James Grieve, September and October; King of the Pippins, October and November; Cox's Orange Pippin, October, November and December; Baumann's Reinette, December and January; Lord Hindlip, February to May. The trees should be on the English Paradise stock.

Grapes unsatisfactory (*Mildew*). — The proper growth and ripening of the Grapes on a Vine depend almost entirely on the strength and the healthy condition of the foliage. If this is diseased or affected with insect pests, that is quite a sufficient reason to account for the unsatisfactory ripening of your Grapes. To kill the mildew your best way will be to burn all the leaves of the Vine as they fall, and as soon as the Grapes are cut and the Vines pruned paint them over with flowers of sulphur, made into the consistency of paint by mixing with water.

Melon roots clubbing (*E. H.*).—This arises from the same cause as clubbing in Cabbages—a tiny weevil. Lime-water is the best remedy to apply when the plants are first affected. Soak two quarts of quicklime in three gallons of water, and water next day (when the lime has settled at the bottom of the vessel) with the clear water only. This will generally arrest any further mischief. But the best way is to burn the turf or soil used for planting, so that you are sure all living organisms are destroyed. We do not mean that you are to burn the soil to a cinder, but simply heat it to such a temperature that will be fatal to any insect germs with which it may be infested.

Apple trees infested (*Fife*).—This is one of the worst examples of woolly aphis attack of the very many we have seen. It should be seriously considered whether it would not be best to destroy the trees so affected completely, start afresh and attack the pest as soon as it reappears. A thorough spraying of the stems and branches, so that they are completely drenched with the wash made of 2lb. of caustic soda, ¾lb. of common treacle and 10 gallons of water, applied while the trees are dormant, is the best thing to do in the winter, but it is very doubtful whether it would do much good to trees in such a condition as this. In summer painting the affected places with methylated spirit is best.

Green Grapes rotting on the bunch (*J. F. B.*). The Grapes on your Vine are suffering from a disease called scalding, so named because the berries when attacked bear a resemblance to having been parboiled. Some varieties are more subject to the disease than others, and it always makes its attack between the time the Grapes commence stoning and when they begin colouring. The only means known of preventing an attack is to ventilate freely while the weather is fine both day and night, and on wet or cold days to apply fire-heat to the pipes so that free ventilation may still take place, and that without lowering the temperature too much. The vinery during the stage of the Vine's growth above mentioned should never be quite closed up either day or night.

Mildew on Vines (*C. S.*).—After your Vines are pruned, rub off the loose surface bark by hard rubbing with the hands. Afterwards wash the canes with warm water and soft soap, using a brush which is not too hard. Then paint your Vines over with the following mixture: Copper sulphate, 6oz.; lime-water, 4 gallons; clear water, 1 gallon. Mix with clay until it becomes of the consistency of paint. The greatest care must, of course, be taken not to injure the fruit-buds on the spurs of the Vine. All should be painted over, though. Yes; bad and careless ventilation in spring will cause mildew. Do not open your front ventilators until the end of April. The temperature up to that time may be regulated by the use of the back ventilators only. The object of keeping the front ventilators closed during the cold days of early spring is to prevent cold draughts entering the vinery.

Grapes diseased (*T. Christian*).—In the first place, the fact that the shoot or spur of the Vine on which the bunch sent is borne has not been properly ripened or hardened would partly account for the Grapes not completing the ripening process as they should do. The cause of this unripeness usually is the overcrowding of the shoots and foliage of the Vine during its season of growth, making it difficult, if not impossible, for the wood to properly ripen. The cause of the splitting of the Grapes has, no doubt, been the wet and cold weather we have had for so long. Had you applied a little fire-heat to the pipes of your vinery, this would not have happened, as the extra moisture in the air would have been expelled and its circulation improved. If our surmises as above are right, the way to prevent a recurrence of the trouble next year will be to pay timely attention to the stopping of the Vine laterals at the second leaf of every new side shoot it makes throughout the season. This will effectually prevent overcrowding, and at the same time permit plenty of light and air to penetrate among the branches and so ripen them.

Old Nut tree to cut down (*Miss M. E. S. Hill*).—Rather than cut the old tree down you would do better to thin it well out by cutting away all the weaker and more barren branches. From the cut branches would grow young shoots. These should be pruned back in winter by one-third their length. This will cause side shoots to issue from these cut-back young shoots. The side shoots in turn the following winter should be shortened back to within three buds of their base, leaving one male catkin on the small portion of the shoot left. These side shoots will then form fruit-spurs, on which the fruit will be borne. The catkins appear early in April, and should not be disturbed at least until after the tiny crimson flowers which appear later on the spurs have done flowering as the catkins help to fertilise the flowers.

American blight on Apple trees (*W. H. Robins*). We know of nothing better than the following wash if carefully applied to every part of the tree by spraying. It is terribly difficult to get rid of this pest effectually, and almost impossible by one single winter dressing. It is always necessary to keep a look-out for it the next spring and summer, as indications of its presence in small quantities are sure to be apparent. A strong solution of soft soap and water, if applied the moment it is seen, will destroy it. If you will persevere in doing this throughout the summer you will get rid of it Arsenate of soda, 3½oz.; acetate of lead, 7oz.; water, 10 gallons. Dissolve both together in water and well stir, and then add 2lb. of treacle to make it stick better to the bark of the trees. This is an arsenical poison. Apply at once and again when the trees are bursting into bud in spring.

Black Hamburgh Grapes not keeping (*C. J. E.*). We think that the chief cause of your Grapes rotting off is because the strong growth your Vines made last year was not well enough ripened. To prevent this happening again next year, we would advise you to have a little heat in the hot-water pipes during wet and cold days in September, with plenty of air, of course, day and night. This will help the wood to harden and the buds to ripen. We would also semi-prune your Vines towards the end of September; that is to say, shorten the spurs by one-third of their length. This will let more light and air among the branches, and it will also have the effect of helping to plump up the lower or fruiting buds. The soil is too close, heavy and cloggy. More broken brick ends (broken the size of an egg) should have been mixed with it. Cover your border with dry leaves 1 foot thick this winter (using no manure), keeping them on until the first week in May. If you give less manure-water next year and keep a little heat in while the Grapes are growing during early summer, we do not think you will suffer a repetition of the trouble. The great thing is to get the wood of your Vines perfectly ripened this autumn.

Muscat Grapes doing badly (*M. S.*). — We think you are acting wisely in doing away with the Vines which appear to be worn out and overrun with that loathsome pest, mealy bug. You would be well advised to grow some other crop in the vinery for one year, in order to give you a chance to get rid of this pest. Let the Vines and their leaves be burnt, and all the surface soil of the vinery taken away to the depth of 4 inches, and be burnt also, if possible, or buried deeply. Then burn flowers of sulphur on red-hot bricks in the vinery. It will take half-a-dozen at least. This should be done on a calm day, and care must be taken to close all ventilators to prevent the escape of fumes. If the house is well filled with these fumes, most, if not all of the mealy bug will be killed. No plants must be left in the house while this is going on, or they would be killed; neither must anyone enter until the fumes have evaporated. The vinery may be occupied, if desired, by plants in winter, but it should be understood that they are quite free from mealy bug. About the middle of next April, if there has been any insects left alive, they will then reappear, when the vinery should be again sulphured as before. After this a crop of Tomatoes, Melons or Cucumbers may be grown in the house during summer and autumn, and if any further traces of the bug is present, sulphur again, and its eradication should be complete.

KITCHEN GARDEN.

Books on kitchen gardening (*Enquirer*) — One of the best, most recent and up-to-date is that issued by *Country Life*, Limited, and forms part of "The *Country Life* Library." Another excellent work is by Messrs. Sutton and Sons, Reading. Another, by Edwin Beckett, a very successful grower of vegetables, is to be had of Simpkin, Marshall, Hamilton, Kent and Co., London, price 5s.

Small French Bean for bottling (*G. W.*).—The old varieties of French Bean, the Sion House and Fulmer's Forcing, are among the smallest and best quality French Beans we know. They are both of dwarf growth, and bear an abundance of Beans considering the smallness of their tops as compared with many newer sorts of more robust growth; but the smallness of the Bean may, of course, be determined by picking as soon as it has attained to the size desired.

Disease in Celery (*F. S.*).—The Celery is attacked by the fungus Septoria petroselini apii, a fungus which has caused much disease in Celery this season. When the trouble is first noticed, diseased leaves should be removed and the plants sprayed with Bordeaux mixture to prevent its further spread. Care should be taken to burn all the refuse from the plants and to choose another spot in which to grow them another year. Seed should not be saved from diseased plants.

THE GARDEN.

No. 2041.—Vol. LXXIV. December 31, 1910.

CONTENTS.

Horticulture in 1910 641

Notes of the Week
Forthcoming events 642

Correspondence
The National Sweet Pea Society's floral committee 642
Rose General Macarthur 643
Some plants for autumn 643
Rosa Moyesii 643

Gardening of the Week
For the South and South Midlands .. 643
For the North and North Midlands .. 643

Flower Garden
Daffodil notes from New South Wales 644
Sweet Pea chat .. 644
A well-grown Campanula pyramidalis 645
Iris alata 645

Fruit Garden
Apple Lane's Prince Albert 646
Apple Mere du Ménage 646

Greenhouse
Two interesting carnivorous plants .. 646
Raising Freesias from seed 646

Rose Garden
Roses under glass .. 647
An amateur's Roses in Ireland 647

Kitchen Garden
Batavian and other Endive 647

Gardening for Beginners
Garden work week by week 648
How to repot a Cypripedium .. 648
Early Lettuces .. 649

Protecting plants from frost 649

The Town Garden .. 649

New plants 650

Root-pruning fruit trees 650

Answers to Correspondents
Flower garden .. 650
Trees and shrubs .. 651
Greenhouse 651
Rose garden 652
Fruit garden 652

ILLUSTRATIONS.

A new Australian Daffodil: Killara 644
Campanula pyramidalis alba with fourteen spikes .. 645
A good kitchen Apple: Lane's Prince Albert 645
An interesting insectivorous plant: Venus's Fly-trap 646
One of the Pitcher Plants: Nepenthes ventricosa .. 647
How to repot a Cypripedium 648, 649

EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, *Tavistock Street, Covent Garden, W.C.*

HORTICULTURE IN 1910.

IN most business establishments it is the custom to take stock at the end of the year, and so ascertain what has been accomplished in the past and to base thereon plans for the future. It has been said, and not without a certain amount of truth, that those who love their gardens know no seasons except those represented by the flowers; yet the close of a year by the calendar ought not to pass without some thoughts of the past and the lessons to be learned by the failure or success of our cultural efforts.

Regarded in its broadest sense, the year now closing has been a moderately good one for our gardens. It is true that the spring and early part of the summer were characterised by sullen skies, heavy rains and cold, biting winds that tried their hardest to wreck the more tender occupants of our gardens; but a gloriously fine autumn, extended to a considerably later date than usual, filled us with hope for the fruit crop next year, when the well-ripened wood and buds should give a good account of themselves and so compensate us for the shortness of the crop during the past year, a scarcity for which the late spring frosts were largely responsible.

Notwithstanding the apparently unfavourable summer, the various large exhibitions held throughout the country have been well up to the average, both as regards quality and quantity. The Royal Horticultural Society's Temple and Holland House shows will linger long in the memories of those privileged to see them, and it will be with a deep pang of regret that those who have been accustomed to visit the latter show will remember that the one held this summer was the last that the society will be able to hold in those charming grounds. The show of British-grown fruit held in October was an exceedingly good one, though not quite so representative as some that we have seen. The ordinary fortnightly exhibitions held by the society have been of an even higher standard than usual, and that these are appreciated by the Fellows is evidenced by the large attendances that have been made. An outstanding feature of these exhibitions has been the exhibits of new hardy plants from China which have been staged from time to time. The value of these plants has not yet been fully realised. Not only are they in themselves interesting, and in many instances beautiful, additions to our gardens, but they will prove of considerable value to the hybridist, and we look forward to many beautiful new hardy plants arising from these new-comers.

The Midland Daffodil show, the York and Shrewsbury exhibitions, the Sweet Pea show, Rose shows, National Vegetable Society's show, as well as the White City, Haarlem and Brussels exhibitions, have all been characterised by magnificent displays of flowers, fruits or vegetables of the highest quality; and it is a pleasure to note that most of the various special societies that exist in this country are in a flourishing condition. During the year arrangements have been well advanced for the holding of the International Horticultural Exhibition in 1912, and already this promises to be the largest and best exhibition ever held in Europe. A new society, the National Hardy Plant Society, has been established, and, although it has met with a certain amount of criticism, we cannot but think that it will make headway and do much useful work in the interests of hardy flowers of all kinds. One of the most pleasing features of the year was the presentation of portraits of Mr. Harry J. Veitch to the Council of the Royal Horticultural Society and to Mrs. Veitch. In these days of commercial and other strife it is gratifying to find horticulturists of all classes uniting in paying such a tribute to one who has devoted his whole life to the interests of horticulture in its broadest sense.

Even a brief review of horticulture for the year would be incomplete without mention of the magnificent work of the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund, both of which are deserving of the strongest support from all who love their gardens. The one, by granting pensions and temporary relief to aged and infirm gardeners or their widows, holds out a helping hand to those who have in the past done something at least to make our gardens brighter; while the other has under its care a large number of orphans of gardeners, children who, through no fault of their own, would otherwise be left unloved and uncared for.

Unfortunately, the hand of Death has been busy among those who occupied prominent positions in the horticultural world or who took a great and personal interest in horticulture. Those dark days of early May, when we learned of the demise of King Edward VII., cast a gloom over the whole country, and in no section of the community was the loss felt more

severely than in that devoted to gardening. Professor Hillhouse, J. McIndoe, William Denning, G. S. Saunders, Baron Schröder, Ernest Calvat, William Boxall, Max Leichtlin, George Stark and Robert Mawson are others who have departed from us, but whose merits will long be cherished in our memories.

Having briefly reviewed the past, we must now look towards the year about to dawn. It is pregnant with possibilities, and if each one endeavours to make his or her garden even better than it has been in the past, success will be assured. In our individual gardens there have been many failures and some successes, and lessons have been learned from both, lessons that will not readily be forgotten, for, after all, there is no teacher like experience. To our readers and contributors who have so freely and willingly assisted us in the past year we tender our best thanks, and commend to them for 1911 the following lines by Tennyson :

> And I must work thro' months of toil,
> And years of cultivation,
> Upon my proper patch of soil,
> To grow my own plantation.
> I'll take the showers as they fall,
> I will not vex my bosom :
> Enough if at the end of all
> A little garden blossom.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

January 3, 1911.—Royal Horticultural Society's Exhibition of Flowers and Plants at the Royal Horticultural Hall, Vincent Square, Westminster, S.W., from 1 p.m. to 5 p.m.

Royal Horticultural Society's Journal.—The November issue of this publication is, as usual, a compendium of much useful and interesting matter relating to horticulture. Many excellent papers which have been read before the Fellows of the society are included, "Fifty Years Among Pansies and Violas," "The Origin and History of Our Garden Vegetables" and "The Effects of the Frosts of 1908–9 on Vegetation" being of more than usual interest.

La Societe Francaise d'Horticulture de Londres.—On Saturday, January 21, 1911, this society will hold its annual dinner, as usual, at the Café Royal, 68, Regent Street. M. Philippe de Vilmorin, who on the last occasion was prevented by the Paris floods from occupying the chair, will preside. All enquiries to be addressed to Mr. G. Schneider, 17, Ifield Road, Fulham Road, S.W.

National Chrysanthemum Society.—On Monday evening, the 19th inst., there was a meeting of the executive committee held at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair. After disposing of the usual routine matter, the secretary, Mr. Witty, presented an interim financial statement, by which it appeared that the balance in hand up to date was £95 odd. The chairman of the floral committee, Mr. D. B. Crane, reported on the visit to Messrs. Cannell of Swanley, one of the three firms that had undertaken the trial of single-flowered varieties. An informal visit was also paid by the committee to the adjoining establishment of Mr. Ladds. In both cases the committee highly appreciated the hospitality extended. It was resolved that the thanks of the society be conveyed to those firms—Messrs. W. Wells, H. J. Jones and Cannell and Sons—for their kindness and interest in making the trials, a full report of which will be issued at a later date by the National Chrysanthemum Society. Concerning text matter for the new schedule, it was proposed that the audit of all cut flowers staged at the Crystal Palace Show should be incorporated in the schedule for 1911. Further discussion ensued on the advisability of the conference proceedings and papers being also included. Provisionally, the dates of the executive and floral committee meetings were fixed. It was arranged that the annual dinner of the floral committee and friends should take place at Carr's Restaurant on February 20 at 7.30 p.m., following the meeting of the executive committee.

The National Sweet Pea Society of New Zealand.—Fired with the success attained by the National Sweet Pea Society in this country, lovers of the flower in New Zealand have banded together and formed a national society. A copy of the schedule of the exhibition arranged for December 7 and 8, has just reached us, and we find that quite a number of classes were arranged on lines similar to those of the society at home. The hon. secretary of the New Zealand society is Mr. E. A. Osmond, Box 18, Stratford, New Zealand.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The National Sweet Pea Society's floral committee.—I have read with much interest your thoughtful leader upon the annual general meeting of this society, in the course of which you draw attention to the fact that the members passed a resolution to the effect that no one who had raised and sold a Sweet Pea should be eligible for election as an amateur member of the floral committee. You rightly point out that this excludes some of our most capable growers. Proceeding, we read, "It remains to be seen whether the general committee will give their sanction to this proposal or not." There is now no question of futurity, for the committee ignored the resolution, which was passed to them in the form of an instruction from the members of the society assembled in general meeting. What I should like to know is, whether the committee of a society can legally ignore a definite instruction given by the body of the members? When the election of the floral committee came forward, Mr. Walter P. Wright nominated eighteen men of repute, and included as amateurs men who had raised and sold Sweet Peas. Mr. Horace J. Wright, who, as is generally acknowledged, has done as much as any individual to ensure the firm establishment and continued prosperity of the society, and who probably knows as much about its working as even the present secretary, questioned the power of the committee to directly negative an instruction from the general meeting. If Mr. Horace Wright is correct in his view, the floral committee is illegally constituted, and their awards could not, therefore, stand. With the merits of the resolution I have nothing to do at this moment, but I should much like to read the opinions of the readers of THE GARDEN upon the legal aspect of a position which is, to say the least, an extraordinary one and of vital importance to the society.—NO LAWYER.

——It is much to be regretted that any kind of complaint or jealousy should find expression in relation to the awards of the society's floral committee, especially as, while so young, it is, all the same, so flourishing and generally so well conducted. Whether the increasing of the floral committee from twelve to eighteen members, the amateur and trade element being equally divided, with a non-voting chairman, will create more confidence in the awards or not, it may be accepted as absolutely certain that the awards of the larger number will be made on precisely the same lines and the same merits as would be the awards of the smaller number. As every variety presented to the committee at the trials, which all must admit are most ably and most impartially conducted, are seen under numbers only, it does seem impossible that any knowledge can be possessed by a member of the committee as to the sender of any new variety. It is just possible that some raiser may recognise his own child by the flowers; but even were that so, while any effort on his part to press its merits on the committee would at once arouse suspicion, yet his standing back would at once make clear who was the sender, and not the least evidence of that should be in any way manifest. Even if two representatives of a firm, raiser, or sender were on the committee, their votes would avail little against some ten or fifteen others. Were there impartial members to vote an award to that variety, it would be only because it was exceptionally good. It may be all very well to lay down scales of points, but, after all, these would be little regarded. Growers and experts such as should form the floral committee should be able to know at a glance, so wide should be their knowledge of varieties, whether any new one was a really good and quite distinct novelty. No doubt, so remarkable has been the advance made in Sweet Peas, any distinctive and good novelty will be harder to find each year. Even then, unless of fairly robust constitution, it should be passed over. If the committee could, apart from ordinary merit, establish a section for perfume only, what a gain to Sweet Peas might result.—A MEMBER.

Rosa pernetiana.—At the annual meeting of the National Rose Society, the newly elected president, the Rev. J. H. Pemberton, made some very felicitous remarks relative to the Rose, that in reference to the claim of M. Pernet-Ducher to give the name of R. pernetiana to the tribe he had practically created being, I thought, very opportune. There can be no question but that this group will be largely increased, so much so that I look forward to it being a very important one before another decade is out. Rosarians are, as a body, the most congenial beings, and I am certain the majority of individuals who are really cognisant of the great work achieved by the "Wizard of Lyons," if I may so term him, will not only recognise cheerfully his right to name the group "pernetiana," but will also be anxious for our National Rose Society to bestow some signal mark of its approval upon his extraordinary successes. I could not but remark to the president that if we withdrew the varieties from our gardens that M. Pernet-Ducher had produced, what a loss we should sustain. Fancy a Rose garden without Mme. Abel Chatenay, Caroline Testout, Joseph Hill, Mrs. Aaron Ward, Mme. Melanie Soupert, Antoine Rivoire, Arthur R. Goodwin, Chateau de Clos Vougeot, Laurent Carle, Lyon Rose, Le Progres, Mme. Ravary, Mme. Jenny Guillemot, Mme. Pernet-Ducher, Marquise de Sinety, Marquise Litta, M. Paul Ledé, Mrs. A. R. Waddell, Prince de Bulgarie, Réné Wilmart Urban, Senateur Mascurand and Entente Cordiale! In my professional capacity I handle thousands of Roses annually, and I can truly say these varieties are the most popular, and it would afford much pleasure to numbers of rosarians who, like myself, can testify to the popularity of M. Pernet-Ducher's Roses if our National Rose Society could in some way honour this gifted raiser.—W. EASLEA, *Eastwood, Essex.*

Rose General MacArthur.—The writer of the note on the above Rose says he cannot understand why I do not care for it, and adds, "there is no accounting for individual tastes." Surely it is good to have individual taste, or there would be fewer varieties of Roses, or, indeed, of other species of flowers, and there are many Rose-growers besides myself who are hoping for better reds in the Hybrid Tea section than General MacArthur. Personally, I think Avoca much the better Rose; but are there any reds as good as the Hybrid Perpetuals such as Horace Vernet, Ulrich Brunner, A. K. Williams, Hugh Dickson, Victor Hugo and a host of others? In "New Roses of the Year," "P." has only mentioned two reds at all likely to become popular, and there is again a preponderance of so-called whites, creams and pinks. As one having an individual taste, I prefer distinctive colours such as Laurent Carle, Marquise Litta and G. C. Waud, which also possess good form and fragrance, two qualities as essential as colour to my individual taste.—ALVASTON.

Some plants for autumn.—On reading the excellent article on the "Autumn Garden at Glamis Castle" I was prompted to write about a few brilliant plants easily raised from seeds sown either outside or under glass and suitable for filling herbaceous borders on the same system as at Glamis. There are a great many mansions in the North of Scotland which are only occupied during the late summer and autumn months; hence my notes. It is disappointing both to the gardener and his employer when too many tender bedding plants are grown, as these may be ruined by one night's frost about the first week of September, especially so when the employer has only arrived a few weeks before for August 12. I only mean to add a little to what was mentioned about Glamis Castle, and other readers may be prompted to add more of the hardy and half-hardy annuals which, after a cold snap, come out smiling with the sun. Annual Chrysanthemum Morning Star and Calendula Orange King and Yellow show well in the late afternoon sun; Dianthus, single varieties; Godetias, sown early outside and transplanted when small; Lavatera rosea splendens, fine colour and good for the back of wide borders; Nigella Miss Jekyll, a much-admired blue flower; Poppy Sutton's Chamois Rose Double (a magnificent colour), Poppy The Shirley and one or two of the brilliant scarlet Poppies; Salvia Blue Beard, very hardy; Scabious in distinct colours; and a good strain of East Lothian Stocks.—J. S., *Beauly.*

Rosa Moyesii.—Your correspondent "P." on page 586 has made a mistake in reference to this Rose, first with regard to the introducer or distributor, and, secondly, as to the year in which it was sent out. As a matter of fact, it was found by Mr. E. H. Wilson on the mountainous districts of Szechuan, China, when travelling in those regions on behalf of Messrs. Veitch, and was by him sent to the Chelsea firm. It was shown by Messrs. Veitch in 1898, when an award of merit was given it, and was by them distributed in the autumn of the same year. It is included in the list of novelties for the autumn of 1908. Contemporaneous with it were also distributed such valuable ornamental subjects as Buddleia variabilis superba, Clematis repens, Cotoneaster applanata, C. rugosa Henryii, Ilex Pernyii, Rhododendron intricatum and Vitis repens. That the flowers are not alone the ornamental features of this Rose was shown at one of the autumn meetings of the Royal Horticultural Society during the present year, when Messrs. Veitch exhibited a delightful group of Chinese shrubs. Prominent in this group was a large bush of Rosa Moyesii, some 6 feet or 7 feet in height, freely laden with its long, bottle-shaped fruits of a rich scarlet colour.—H. P.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

PLANTS UNDER GLASS.

BOUVARDIAS. — When these cease flowering, water should be gradually withheld and the plants given a rest till February, when they are pruned and started again.

Chrysanthemums.—The propagation must proceed as the cuttings are produced. Some varieties are rather backward in making growths suitable for cuttings. These may be assisted by putting the roots in a warm greenhouse. When the earlier cuttings are rooted they should be removed from the propagating-frame and placed in one where air can be given.

Perpetual-flowering Carnations.—As soon as the cuttings are sufficiently rooted they must be potted. Loam, leaf-soil and sand in equal parts, thoroughly mixed, provide an excellent compost for the first potting, using 2½-inch pots for the work. When potted, the young plants may remain in the same temperature till established, when a cooler house will be more suitable. Plants rooted at this season should be grown on quietly; any attempt at forcing after they are potted into 3-inch pots will result in weakly growth.

Propagation.—Cuttings of Panicum, Tradescantia and Fittonias should be put in to maintain a supply of plants for the stage edging. Three-inch pots are most suitable for the work, dibbling several cuttings into each pot. Crotons, Ficus, Pandanus and similar plants root readily at this season, and should be propagated.

KITCHEN GARDEN.

Carrots and Radishes.—Providing a frame has been prepared as advised earlier, the seed may now be sown. Drills should be made about 5 inches apart, sowing them alternately. Thus, when the Radishes are cleared out, the Carrots will be left to grow with 10 inches between the rows.

Lettuces.—A mild hot-bed should be made with fresh leaves to place in a frame which is to be planted with the first batch of Lettuces. The plants intended for this purpose must be kept growing in a warm house as near the glass as possible, to promote sturdy growth.

Seakale.—As the roots are taken up for forcing, the best of the trimmings may be prepared for sets. These when ready should be tied into bundles and laid in the ground. In making the sets the top should be cut level and the bottom slantwise; then no mistake is made in planting.

Cabbages.—The beds should be looked through, and if any plants are found loose at the stem they must be made firm. If the late-planted bed has not been moulded up, no time must be lost in accomplishing the work. When dry, open weather occurs, the surface soil between the plants may be slightly stirred with a hoe.

TESTING SEEDS.

The coming of the New Year brings along the seed catalogues, and one should know what there is remaining of the old stock of seeds. These should be carefully examined and tested. Those kinds which are found to be sound should be dated and put in a box by themselves to avoid mixing them with the new stock. The work of testing can be easily accomplished by counting a few seeds and placing them in a pot filled with soil in the Cucumber-house.

E. C. POOLEY.
(Gardener to C. Bewes, Esq.)
Gnaton Hall, Plymouth.

FOR THE NORTH AND NORTH MIDLANDS.

WORK DURING BAD WEATHER.

BOX-MAKING.—In many places it is necessary for the staff to make the cutting or seed boxes, and very suitable work it is during a spell of bad weather. There is usually one at least of the men who is handy with tools, and this work should be given to such an one, as it is just as well to have neat, well-made boxes as coarse, clumsy ones. It is always well to have a standard size, as one can then calculate at a glance the number of plants or cuttings of any kind that may be in stock. A box made with sides 26 inches long and ends 13 inches long will hold about sixty seedlings or cuttings of bedding plants. The boxes should be 3½ inches or 4 inches deep. For seed-sowing purposes boxes about half the size of the above are very handy.

Birch Brooms.—These are always best when made at home. It is a good plan to make the brooms immediately the Birch is cut, as it is then so much easier to cut the pieces into the required sizes. After the Birch is properly trimmed, tie into bunches of the required size and lay aside until they are properly dried. The final tying with strong cord should be seen to after the brooms are quite seasoned.

Tallies.—Wooden tallies are to be had so good and cheap that it is hardly worth while spending time making them at home unless there is a shortness of work for the staff in winter. Good yellow Pine makes the best tallies, and a good plane is the best tool to use in making them. A sharp chisel or strong knife is necessary for pointing the labels. It is a mistake to paint labels until just before they are to be written on. If the paint is dry, the writing is more difficult and it soon wears off.

Stakes.—Like tallies, these are to be had quite cheaply, but for fine work, like staking Schizanthus, Begonia Gloire de Lorraine and other slender plants, the bought stakes are much too clumsy. It is a good plan to remake these strong stakes so as to adapt them to the purposes named. With a good sharp knife it is quite an easy matter to whittle them down into nicely tapered, light rods that have a tidy appearance when put to these slender plants. It is a great improvement also to give the stakes a couple of coats of light green paint.

Lawn-mowers.—Any handy man can take these machines to pieces and put them together again, so a thorough overhaul should be given to each one in turn. All dirt should first of all be scraped off the different parts. Then with a piece of rag, or waste, scrub effectually with paraffin oil. Afterwards oil every working part with good sweet oil, and set away in a dry, clean place.

MISCELLANEOUS.

Stoking.—During winter the heating of the various glass structures is a very important part of the routine work. Almost anyone can "fire up," but the proper regulating of the heat under varying climatic conditions is not quite so simple. A close study of the capacity of the furnace and boiler is of the first importance, as scarcely two of these work exactly alike. Fuel also varies so much that one has to study this for a time before one can just exactly gauge its usefulness for the work it has to perform. Unless in stoves, early vineries and forcing-houses, there is no need for much fire-heat at this time of year. Any plants that are at all active are those of a fairly hardy nature, which give the best results in a very moderate temperature.

C. BLAIR.
(Gardener to Seton Thomson, Esq.)
Preston House, Linlithgow.

THE FLOWER GARDEN.

DAFFODIL NOTES FROM NEW SOUTH WALES.

THE grower of Daffodils in the coast district of New South Wales, though obtaining fairly satisfactory results, especially from the early blooming varieties, is quite taken out of conceit with himself when brought face to face with flowers grown in the mountain districts where climatic conditions are more favourable. Still, there is a place for both, and as the mountain-grown flowers come in much later than those grown in the milder climate of the coast, they do not come into competition to any great extent.

During the early part of September I had the opportunity of repeating the pleasant experience of several past years by spending a charming week-end with Mr. Arthur Yates at his picturesque bulb farm at Exeter, where I was fortunate enough to catch many of the newer Daffodils at their best. When I say "newer" varieties it must, of course, be understood that imported bulbs, taking as they do from two to three seasons to acclimatise, are classed here as novelties long after they have ceased to be so looked upon in England.

Exeter is a rural district some ninety miles south of Sydney on the main Southern Railway, and with its elevation of 2,000 feet above sea-level, bracing climate and volcanic soil, offers ideal conditions for Daffodil culture, discounted somewhat by an uncertain rainfall and by its exposed situation, being the highest point on the Great Southern Railway. Mr. Yates is a large grower, and at present has about twelve acres under Daffodils, holding large stocks of the standard varieties together with a good and ever-increasing collection of the choicer kinds, comprising in all not fewer than 400 varieties, besides a large series of seedlings in all stages of growth. The Exeter property, comprising 400 acres of basaltic country, generally of undulating character, has been developed under the most approved modern methods into a thriving model farm, of which the nursery grounds comprise but a small portion of the whole. In addition to Daffodils, attention is devoted to Tulips, Pæonies, Iris in large variety, ornamental trees and shrubs, while a portion of the grounds is specially reserved for seed-testing. Passing through great breadths of princeps numbered by the hundred thousand, extensive beds of Emperor and Empress (still bravely holding their own), Sir Watkin and other standard varieties, rows upon rows of Poeticus—ornatus, præcox, Poetarum, Almira and grandiflorus—I found myself suddenly brought up almost with a gasp, for before me, rank upon rank, were many of the "blue bloods" of the Daffodil world, veritable aristocrats hitherto known only from catalogue descriptions and associated with prices altogether beyond the resources of a slender purse.

Space will not permit me to do more than briefly criticise the varieties which most appealed to me, and of these there were so many that I can well afford to pass over the items in which I was disappointed. Of yellow trumpets King Alfred all round held pride of place for size combined with balance and extreme refinement, Van Waveren's Giant and Olympia, huge and striking, but somewhat coarse by contrast; Monarch and Lord Roberts, of great beauty and refinement; Fred Moore, Golden Nugget, Shakespeare, Glory of Leiden (rarely good near the coast), Golden Bell, Admiral Togo and Mona (a Victorian seedling), all in good form; while Emperor Constantine, a gigantic Emperor of great refinement and fine constitution, was one that specially impressed me. This variety, imported as an unnamed seedling, will unquestionably make a name for itself when better known.

As against the giants, the Johnstonii varieties Queen of Spain and J. Bennett-Poë were much in evidence, their dainty beauty having quite a restful effect and affording an excellent foil to the grandeur of their majestic brethren. Of bicolor trumpets Weardale Perfection, seen in considerable quantity, was voted the first place of honour, with Duke of Bedford a close second. Mrs. Moreland Crosfield (by no means a novelty) was large and showy and of very pure colouring—this variety ran T. A. Dorrien Smith very closely; while Coronet, with its splendid frilled trumpet, was not to be lightly passed over. Mme. de Graaff was in plenty and in splendid condition, as was Mrs. J. B. M. Camm; but the earlier whites, a number of which are about to be discarded, were, as a whole, past their best.

Among the Leedsii varieties I was specially fascinated with Diana and her grand cup, beside which that of Ariadne is lost. White Queen was magnificent and well worthy of all her championships, while White Lady, Maggie May and Elaine made a trio of charming ladies-in-waiting.

Of the incomparabilis I consider that Homespun stands alone as a model of balance and refinement; but Lemon Queen, seen for the first time, was perhaps the most noticeable; while Noble, Solfatare, Orangeman, Lucifer (with its splendid red cup), Lulworth and Lady Margaret Boscawen al had their individual attractions. Albatross, with its more satisfactory twin sister Seagull, and the two reputed sports from Barri conspicuus (Lady Godiva and Branston) were at their best; the last-named, which I had not previously had an opportunity of seeing, is certainly very lovely. *A propos* of the tendency of Barri conspicuus to sport, it may be mentioned that it nas given at least one sport in Sydney, which very closely resembles Lady Godiva. In the Parvi section the glowing cups of Firebrand, Orestes and Berenice rendered them very prominent. Zenith (champion Parvi at Melbourne this season) was much in evidence, while the exquisite purity of old favourites such as Ellen Barr and Falstaff, as seen in the mass, still hold a good position in spite of the many new acquisitions. In the Engleheartii section Incognita reminded me somewhat of Queen Sophia, while the sight of Circlet assured me that I had made no error in ordering it. Astradente, too, with its brilliantly edged flat cup, is a very striking variety. Triumph, Jaune à Merveille, Elvira and others, judging by the brave show they made, indicate that the Poetaz varieties revel under Australian conditions, and for decorative purposes should prove invaluable.

While the older Poeticus forms are grown in large quantities at Exeter, many of the later creations, such as Homer, Horace, Chaucer and Dante, are now making a show and proving worthy representatives of a section which, in my opinion, embraces the gems of the Narcissus family.

A series of seedlings, most of them blooming for the first or second time, were to me of special interest; but as they represent the results of crosses made chiefly from the commoner varieties, great results cannot be looked for. Still, it was encouraging to find here and there seedlings of great promise, including an exquisite pure white Parvi somewhat of the type of Ethereal, which will certainly be a prize if it develops well. As Mr. Yates has of recent years been working exclusively from the better varieties, his many thousands of seedlings, now in all stages of development, should help largely in the future to provide a race of local varieties better adapted to Australian climatic conditions than are many of the imported kinds.

Sydney, New South Wales. H. SELKIRK.

A NEW AUSTRALIAN DAFFODIL: KILLARA.

SWEET PEA CHAT.

VARIETIES CATALOGUED.

AMONG modern raisers none has been more consistently successful than Mr. C. W. Breadmore. Season after season, since the first year that he descended upon this earth as a brilliant star carrying all the glory before it, he

CAMPANULA PYRAMIDALIS ALBA WITH FOURTEEN SPIKES.

has been to the front as an exhibitor as well as an introducer of novelties of outstanding merit. It is true that many of these have not been as true to character as is Mr. Breadmore himself, but all have been so good that small sins of this nature are soon forgiven by the members of the Sweet Pea cult.

Who has forgotten, who can afford to forget, one might justifiably say, the supreme Etta Dyke and the fickle, though exceedingly beautiful, Audrey Crier? The former always came practically true to character, while the latter has never done so, and apparently never will, but still it is a variety that sells and will sell, for the reason that when the real Simon Pure is secured it is one of the most delightful Sweet Peas in cultivation, even in these days of wondrous varieties from home and abroad.

This season Mr. Breadmore will give out to the world eight novelties, but Iris, the exquisite salmon waved variety, will not be ready until the autumn of 1911. Freda is an artistically waved pure white, for which it has been claimed that it will prove superior to Etta Dyke for purposes of exhibition, but this will have to be proved by time. A. N. Dickson, a violet and purple waved variety, is of immense size, and will have a vogue for the show-board, even though the colour is not too attractive. Charles Irving is a deep salmon Spencer, which, like all the others in this much-to-be-desired shade, burns in the sun, and must, therefore, be carefully and efficiently shaded if it is to come of the finest quality. Mollie Clegg, lavender mauve Spencer, is, like almost all of the Winchester varieties, of exceptionally large size, and will have a welcome.

I must have a small growl at Mr. Breadmore for the names of the other three. They are catalogued respectively as Breadmore's Coccinea Spencer, Breadmore's Bicolor and Breadmore's French Grey. Descriptive names such as these may be simple, but they are none the less confusing, and one would have thought that something far more pleasing could have been manufactured at Winchester.

Although Mr. W. Atlee Burpee is domiciled in America, we Sweet Pea lovers regard him as an Englishman, and always give him the heartiest of welcomes when he finds the time to come among us. We welcome, too, the Sweet Peas that he sends to us, but we invariably discount in some slight degree the glowing descriptions of his circulars, and question whether the varieties so freely and artistically lauded will come up to the promise or be anything like true to character. Many that Mr. Burpee has given us in the past have come considerably mixed, but almost always there have been excellent varieties among them.

The Philadelphian novelties for 1911 are Ethel Roosevelt, a real Spencer, and the colour is described as blush crimson flakes on a pale cream ground; we can do with this if it is right. Florence Nightingale is referred to as the "largest and best lavender Spencer yet introduced," and if this statement be true we can do with this also. Rose du Barri belongs to the grandiflora group, but will, nevertheless, be highly appreciated. Mr. Ireland, who grew plants at Mark's Tey, describes it as "unique and distinct, a charming flower of deep rose colour, overlaid with a lovely sheen of terra-cotta," which sounds peculiarly attractive.

During the past few years Messrs. Stark and Son have given us some fine varieties, but it was not until they secured the silver medal of the National Sweet Pea Society for George Stark that growers quite appreciated the splendid strains the firm was growing. Unfortunately, George Stark did not live up to the promise of its early days, but degenerated, and we had to have the beautifully waved glowing scarlet under the name of George Stark Improved last season; but this mishap must not prejudice growers against that or any other variety of distinct merit. For 1911 three novelties are offered, including Lord Northcliffe, a very rich cerise Spencer of fine shape, substance and size; Hercules, a pale rose Spencer of immense size; and Fair Maid, pale cream, overlaid with flesh, and belonging to the Spencer section.

Stirling Stent, of first-class certificate and silver medal renown, will, of course, be distributed by Mr. J. Agate, and it is already currently reported that he is booked up with orders to the last seed. Let us hope that it will sustain its reputation

Lincolnshire may justly be said to be more celebrated for its Potatoes than for its Sweet Peas; but Messrs. Gilbert and Son made a great reputation for the county of fens and flat lands with Anemones a short time ago, and are now adding to its laurels, and incidentally to their own at the same time, by introducing some splendid Sweet Peas. For 1911 this firm has Lady Florence Willoughby, an exquisite cream pink which it is within the bounds of possibility will not find its way into our gardens until the autumn of the year; and Hyacinth, which is described as wine colour.

Messrs. R. H. Bath, Limited, are very extensive seed-growers, and on many occasions they have arranged beautiful groups of Sweet Peas at leading exhibitions. Beyond these things they have sent out one or two beautiful novelties, and this season they hope to have ample stocks of Perdita; it is a sister, as far as style of coloration at least is concerned, of Helen Pierce, only the markings of the veins are in rose instead of blue. It is safe to affirm that this will become an extremely popular variety. The second from this source will be Fairy Queen, which belongs to the Spencer section, and is a white, flushed with pink; it is refined and graceful.

With such redoubtable growers and exhibitors within its boundaries as Messrs. Stevenson and Hopkins, this home county is well to the fore in the Sweet Pea world, but it will gain in glory from the fact that the old-established Farnham firm of Bide and Son has taken up Sweet Peas with great enthusiasm, and is already offering excellent novelties. In 1911 they promise three, including Blue Belle, which belongs to the grandiflora group and is accurately described by its name; Mrs. R. Massey, also a grandiflora, which approximates to the well-known Agnes Johnston in colour; and Mrs. Stewart Champion, cream pink, waved.

And now I have to bid farewell to readers of THE GARDEN. For two years the Editor has allowed me to talk to my friends about the flower we all love so much. Now he thinks that the time has come for a change, and I cannot but obey. The regret with which I do so is softened by the assurance of the Editor that my successor will be allowed quite as much space as I have had, and that he is a real good man. SPENCER.

A WELL-GROWN CAMPANULA PYRAMIDALIS.

I AM enclosing a photograph of a plant of Campanula pyramidalis alba grown in these gardens. It was in an 8-inch pot, was about 7 feet 6 inches in height, and had fourteen spikes. I am taken with it to show the height. A. W. ALLCORN.

The Gardens, Gore Court, Otham, Maidstone.

IRIS ALATA.

THE Scorpion Iris belongs to the bulbous section or Xiphions, and is a native of Spain and Algeria.

A GOOD KITCHEN APPLE: LANE'S PRINCE ALBERT. (*See page* 646.)

Its value for flowering in December in a cold frame or unheated house is well shown by a batch now in flower at the Lowfield Heath Nurseries of Messrs. J. Cheal and Sons. The plants are about 9 inches in height; the large, handsome flowers are borne well above the shining grass green foliage and vary considerably in colour, from bright lilac purple to bluish mauve. Some are distinctly marked with a band of bright yellow, others scarcely at all. The bulbs can be purchased cheaply, and should be potted in September and plunged in ashes or placed at once in a cold frame. For room decoration three or four bulbs may be planted together in a fancy bowl, but it must be fairly capacious, as the bulbs are equal in size to the largest Narcissi. When grown outside it needs a sheltered place on the rockery or near a wall, and the flowers should have the protection of a sheet of glass. J. C.

FRUIT GARDEN.

APPLE LANE'S PRINCE ALBERT.

FEW Apples are so deservedly popular as Lane's Prince Albert. It is a favourite among the Kentish fruit-growers, and it never fails to give satisfaction in small or suburban gardens. That it should be so general a favourite is not surprising when we consider its many good qualities. In the first place, it is a good grower of strong constitution. It is not in the least particular as to soil, although it attains a much better colour when grown over a chalky subsoil. The fruits are produced in clusters that usually require a little thinning, for it is by repute a free bearer. Moreover, the fruits are well shaped and will keep until March and April. For kitchen use it is one of the most valuable of Apples, and, being of good flavour, is preferable for dessert to many of the more attractive and showy varieties.

APPLE MERE DU MENAGE.

THERE seems to be no record of the origin of this culinary Apple. I have known it for forty years. As an espalier in a garden in Cheshire it was largely grown and attained huge size. It is not generally grown in gardens, although one comes across fine trees of it occasionally. In Major Petre's garden in Norfolk as an espalier it does splendidly, the fruits colouring exceptionally well and attaining full size. I have this year seen specimens of it that remind one of those particularly dark-coloured Apples from British Columbia. When trees are allowed to grow away freely at first they are not long in coming into bearing, and when there are Apples at all of any sort there is generally a crop found upon trees of this variety. Its generally accredited shyness of bearing has, no doubt, been the cause of the scarcity with which it has been planted. E. M.

THE GREENHOUSE.

TWO INTERESTING CARNIVOROUS PLANTS.

THERE is something particularly fascinating about a small group of plants known as insectivorous or carnivorous, which seem to perform the work of animals by catching insects or by consuming pieces of raw meat. No one, for instance, could for the first time look upon Venus's Fly-trap as it closes its toothed leaf upon its prey, or upon the wonderful Pitcher Plant as it entraps some unfortunate insect, without being truly surprised at the presence of such extraordinary characters in plant-life.

AN INTERESTING INSECTIVOROUS PLANT: VENUS'S FLY-TRAP (DIONÆA MUSCIPULA).

Venus's Fly-trap (Dionæa muscipula) is the most remarkable of all insectivorous plants. It possesses rosettes of leaves which lie close to the ground. Each leaf is divided into an upper and lower blade, and the margins on each half have teeth-like projections. On the inner surface of these leaves may be seen a number of small reddish dots; these are digestive glands. Among these glands are a few small hairs, usually three on each half of the leaf; these are known as trigger hairs, so named from the fact that the least touch given to one of them causes an immediate closing of the two halves of the blade. The hairs are jointed at the base, in order that they may fold downwards when the leaf is closed. In this position it will be observed that the teeth cross one another, and the insect causing the movement is thus captured unless it is small enough to escape between the teeth, as is sometimes the case. The leaf continues to close in until the two halves squeeze together, after which the work of the digestive glands is brought to play upon the soluble parts of the captive. In due time the leaves open again and are ready for further prey for the maintenance of the captor.

In the case of the Pitcher Plant (Nepenthes) there are no motile organs or trigger hairs. Insects are attracted by the highly coloured and inviting pitchers. Alighting upon the pitcher the insect is readily conducted by a groove to the entrance or mouth. It so happens that the species shown in the illustration does not possess the guiding lines; in this peculiarity it is very exceptional. Once inside the pitcher the insect finds it a difficult matter to return, owing to the slippery nature of a part of the interior and to fine hairs, which all point downwards. The unfortunate insect, finding it an easy matter to go deeper, is ultimately drowned in the liquid which the pitcher contains. This liquid teems with bacteria, which quickly decompose the fleshy parts of the insect, and thus once again the plant triumphs over animal-life.

Nepenthes are quite as ornamental as they are interesting, but unlike Venus's Fly-trap, which grows best in a cool greenhouse, the Pitcher Plant requires a stove temperature. It is common to all insectivorous plants—and there are a few British species—that they should abound in places where there is little nutriment in the soil; hence their somewhat degraded taste as carnivorous feeders.

RAISING FREESIAS FROM SEED.

THE usual method of obtaining these beautiful flowers is to purchase bulbs and pot them up in August and September. But may I give my experience in raising them from seed for the benefit of other readers of THE GARDEN. This year I purchased from Messrs. Sutton and Son some seed, put about ten seeds in a 6-inch pot, and stood these on a shelf in a vinery which had just been started, shading them to assist germination. Every seed grew, and later on, when fit to handle, the seedlings were transferred five to a 6-inch pot, put in frames and given free ventilation. throughout the whole of their career. In late August they commenced to show flower-spikes, when they were again removed to a shelf in the house and given a weak stimulant. In September we were able to cut several fine spikes of blooms, which, I think, is unusual. I am hoping to have another crop of flowers in the early spring, the plants now being kept quite cool and not overwatered, which I find is absolutely essential to success. W. G.

THE ROSE GARDEN.

ROSES UNDER GLASS.

THE early part of the year is a very busy time among Roses under glass, and much of the future success is at stake now. The earliest batches should be in full growth, and will quickly respond to the wonderful influence of lengthening days and sun power. It is at this time that insects and mildew are most troublesome, unless one takes early precautions to check and prevent their increase.

It is not my intention to praise one insecticide more than another; all of those on the market are good and perfectly reliable if the directions upon the bottles or tins are carefully followed. I feel certain that most, if not all, of the mistakes and injuries arise from lack of care in following the directions, the majority of failures being from using the solutions too strong. I cannot too forcibly impress upon readers the folly of this. It is far better to syringe twice than to overdo it and ruin the young growth. Besides, more frequent syringings of a weaker solution are a great help in washing and cleansing the foliage. By fumigation and syringing combined the war is carried on more effectually than with one method alone, and if the plants are fumigated overnight and syringed early in the morning it does not need such strong measures in either case. Experience has given me great faith in this combination; but, however clean we may get our plants for a time, it will not last unless we are prompt to attack once more directly the enemy appears. Not only are they easier to combat at first, but there can be no good in allowing them to increase, which all insects do with almost incredible swiftness. This frequent syringing, more especially if a little extra flowers of sulphur be added to the solution, is also a great check to mildew — certainly one of the best I am aware of.

Careful attention to ventilation, changes of temperature, and the water supply will avoid mildew, which is a most insidious disease and very difficult to eradicate after it has once got a sound footing. When a plant has an attack of mildew it has certainly received a check in some way, and this affects the whole system of the plant in a very different manner to that caused by the presence of insects. It may be from chill, too great atmospheric fluctuations, and, more often than is generally recognised, it is caused by the roots being checked by being too dry or sodden, or the use of liquid manure strong enough to injure the feeding points of young and tender rootlets. From first to last extremes should be carefully avoided, and if this is done Roses are not more difficult to have in beauty and health during the first two months of the year than the majority of other flowering subjects.

Selections of suitable varieties have frequently been given and need not be mentioned again, but I would not attempt too many of widely different growths. Do not ventilate more than can be avoided. I do not like the least draught in the Rose-house except when the plants are being ripened, and would only afford air when the atmosphere is overcharged with moisture or the fog following a rather cool night. At all times avoid cold draughts otherwise mildew will make its appearance on the foliage A. P.

AN AMATEUR'S ROSES IN IRELAND.

I SEE in "Rose Growing Made Easy" mention is made of mildew in connection with the Rose Killarney, and I have heard the same from others. As correspondence is invited from amateurs, I venture to give my experience. If anyone had asked me, I should have unhesitatingly told them that Killarney was mildew-proof. Mildew does not touch it with me. Next year I am going to try Mildred Grant, which is supposed to be a "martyr to mildew." To return to Killarney. It is a marvellously lovely Rose in size, shape, foliage, colouring and scent, and the scent carries for yards when the tree is in bloom. With stalks cut from 10 inches to 15 inches long for dinner-table or drawing-room decoration it is simply perfection, and puts every other Rose that comes near it in the shade. I have it in standard form on Briar and on rugosa (I like it better on the former), and people who see it in bloom are literally struck dumb with admiration. I will try to send you a photograph next year. My favourite of all Roses is Lady Roberts. To my mind no other Rose can touch it. The memory of it and the anticipation of it are a joy for ever. For perfection of petals, colouring and lasting quality Mrs. Paul is my second favourite, and every bloom it bears is a show one. For Lyon Rose, with its crude colouring, I care not at all, and the most uninteresting Rose in the whole world, I consider, is Frau Karl Druschki!

Tanllan, Dolgelley. C. L. Cox.

ONE OF THE PITCHER PLANTS: NEPENTHES VENTRICOSA

THE KITCHEN GARDEN.

BATAVIAN AND OTHER ENDIVE.

FOR autumn and winter supplies we depend entirely on Fraser's Broad-leaved and the Round-leaved, both of which are excellent varieties and indispensable for producing nice tender hearts and leaves for salading. The Batavian is much hardier and less liable to be injured by damp than the curled varieties, and blanches readily with very little trouble and attention. Where portable frames are available, a quantity of the more tender varieties may be raised and, at the right time, transferred to them. If lifted and planted rather close together when perfectly dry, the plants will furnish a good supply of hearts for several weeks. In this case the plants should be lifted before the tips of the leaves get damaged by frosts, for, no matter how slightly they are injured, early decay is certain to follow.

The Batavian Endive, being more hardy and less liable to be injured by damp and fogs, can be had in good condition for many weeks if lifted carefully and transplanted rather closely together at the foot of a south wall or forcing-houses; and in this way I usually manage to keep a capital lot of plants for some weeks, the only attention needed being a little protection in frosty weather. In this position they are blanched as required. For earlier use we usually plant on a nice warm border, and tie up the leaves like Lettuce at intervals when perfectly dry and in sufficient quantity to meet the demand. Endive will not keep long after it becomes well bleached, so that only a given number should be tied up at a time.

For autumn and winter use the seed is best sown in the month of July; we generally make three sowings at intervals of ten days, and from each of these sowings two plantings, which, as a rule, suffice. When the plants are raised early, should we experience a spell of dry weather, they frequently bolt to seed, and if sown late do not heart sufficiently for the purpose for which they are required.

A good Endive to precede the Batavian, and a variety I have grown and greatly depended on for many years, is Digswell Prize. With good cultivation this grows to a large size, and remains in good condition longer than some others do.

Wrotham Park Gardens, Barnet. H. MARKHAM.

GARDENING FOR BEGINNERS.

HOW TO REPOT A CYPRIPEDIUM.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—A beautiful lawn is not the result entirely of work done to it in the summer-time. It may be kept very neat and trim during the summer months and watered when dry weather comes, but the enriching of the turf must be done mainly in the winter. Some people cannot bear to see a few worm-casts on a lawn; they

1.—A CYPRIPEDIUM READY TO BE DIVIDED.

immediately make an effort to destroy the worms, and also brush away the little mounds of earth. Of course, if a lawn is very badly infested by worms, the destruction of quite two-thirds of them will be beneficial; but on clayey soils a number of earthworms will help to drain and purify it. The worm-casts must be brushed to and fro on the grass, and then the latter should be rolled thoroughly. The loose earth will act as a top-dressing, and in spring the young grass will show signs of improvement. A few wood-ashes, and also a fine dressing of soot, will help to materially improve the lawn if both are scattered on in damp weather and when frosts are not prevalent. Any trees that are not required, owing to their bad condition both as regards health and form, should be sawn or cut off several feet above the soil and removed carefully from the shrubberies, then the stumps will be available as a lever when the work of grubbing out the roots is undertaken. Old shrubs may be treated in a similar manner. Many trees in the pleasure grounds may be improved if the top branches are cut back fairly hard; this action will greatly strengthen them, as the young shoots and leaves will show when they commence to grow again in the spring. Old shrubs that have become rather straggling may be headed back severely. At first they will present a bare appearance, but by midsummer they will look like young bushy shrubs.

Vegetable Garden.—Hot-beds for forcing purposes must now be made up. Where plenty of tree leaves are available, they must be freely used in the construction of the beds, as they create a steady and lasting heat, and are, moreover, very clean. Littery manure from the stables and leaves in equal proportions make the best hot-beds for all ordinary purposes. The manure must be turned over several times during the week to allow most of the rank steam to escape; then the material will not overheat and burn. The leaves must be slightly damped as they are mixed with the manure, when a better heat will be secured. In building up the bed it should be 18 inches wider each way than the frame that is to be placed on it. If used for covering tubs, pots or boxes for the forcing of Seakale or Rhubarb in the open borders, the bed must be quite 18 inches wider than the outside pots. The heat from the bed warms the roots and causes early growth. Care must always be taken to allow the rank steam to escape from pots, boxes or frames by leaving small openings at the top. Parsnips growing in a heavy soil in low parts of the garden should be lifted and stored in sand. Continue to deeply dig all heavy soils and to put in rotted manure.

Fruit Garden.—Cuttings of Red, White and Black Currants and Gooseberries should be examined every week from now until next April, and if any of them appear to be loose in the soil, tread down the latter so as to make it quite firm again round the base of the cutting. If the base of the cutting does not fit closely and firmly on the bed of soil, the lower portion of the stem will gradually decay instead of callus and, in due time, roots forming. Complete the winter pruning of Pear, Apple, Apricot, Plum, Peach and Nectarine trees. When it is completed, fill up holes in walls with mortar or cement, and paint the wires with paraffin.

Greenhouse and Frames.—Where Plumbagoes, Bougainvilleas and Heliotropes are grown and trained to single or double rods under the roof glass like Vines, the final pruning must now be done. All the side shoots should be cut hard back to the main rods. In February, or very early in March, new shoots will grow freely enough, and some thinning out will be necessary. The borders must have one good watering now, and again in February. Keep Tree Carnations in as light a position as possible now in the greenhouse, and be very sparing with the watering; that is, do not water too often, but give sufficient to thoroughly soak the whole of the soil in the pot when water is applied. Examine all stored roots and bulbs, and see that decaying specimens are removed forthwith. Put in a good stock of fibrous turves for potting purposes, and also procure rotted manure and store it under cover for the same purpose. Lay a clean bed of ashes for plants in frames, but use those ashes only that have been exposed to the weather for at least a month. A. A.

HOW TO REPOT A CYPRIPEDIUM.

THE first figure shows a Cypripedium which was in flower a few weeks ago, and with the advent of the New Year it should be repotted, for it is at this season when Orchid-growers turn their attention to the many beautiful forms and hybrids of C. insigne and C. spicerianum. It should be clearly understood that Cypripediums are as easily grown as other greenhouse subjects. Having selected a plant that requires additional root space, we must decide whether it is desirable to divide it into several parts or to grow it on as a large specimen. Now, if the variety is not a rare one, and only a few of one kind are needed, I suggest the latter method, for it is the large plants producing six or more flowers that are mostly admired. They are potted on with very little disturbance at the base, but it will be necessary to sever the rootstock with a sharp knife in about three places, which has a twofold advantage—first, it prevents the centre from becoming full of old flowered shoots, and, secondly, it causes extra growing points to form, which in due time increases the flowering capacity of the plant. It may happen that the variety is a choice one, or perhaps it is extremely rare. In such a case we must try and propagate it as fast as possible; but this ought not to be overdone, or the constitution of the plant may be ruined and the whole stock be lost. With these Orchids one of the chief methods of propagation is by division, as illustrated in Fig. 2. After taking it out of the old flower-pot, all the soil is picked out with a pointed stick or "bedder" (shown in Fig. 3) and the dead roots carefully cut away, when the plant is divided into several pieces and repotted.

One-half of the compost should consist of the best fibrous loam with the fine particles sifted out, and the remaining half may be made up of Osmunda fibre, peat (which must be fresh and not too decomposed) and chopped sphagnum moss in equal proportion, adding a sprinkling of silver sand or finely broken crocks to keep the mixture in a sweet and porous condition. For Cypripediums it is advisable to pass the whole of the soil (after thoroughly mixing the ingredients together) through an inch sieve, and it ought to be prepared a week or so before being used; while as a precaution against the roots taking a chill it should be placed on the hot-water pipes till it becomes warm to the hand. The pots are filled one-third of their depth with drainage, over which is arranged a thin layer of loam or moss to ensure a free passage for water, and with divided specimens they must be sufficiently large to comfortably take the roots, but overpotting should be guarded against, for it is an easy matter to provide them with a bigger receptacle directly they become established. Having put the plant into position, the mixture is worked between the roots, pressing it moderately firm as the operation proceeds till the pot is nearly full. Cypripediums enjoy plenty of moisture throughout the year, hence the reason for finishing just below the rim; but although dryness at the base cannot be tolerated, the other extreme must not be indulged in, for constant saturation means decayed roots, and when any plant gets in such a state no good results can be expected. When the repotting is completed the surface is neatly trimmed over with a pair of scissors, which gives a workmanlike appearance

2.—THE SAME PLANT DIVIDED INTO THREE PIECES.

to the plant, as seen in Fig. 3. This is the same specimen as photographed in the first illustration.

It is immediately after being disturbed at the root that Orchids require the most careful handling so far as the water-pot is concerned. If any doubt exists as to whether water is needed, let it wait till the following day; but as growth advances and root action becomes more vigorous the supply can safely be increased, while the surroundings must be kept moist by occasionally syringing between the pots. An average temperature of 60° Fahr. is recommended, and protection will be necessary from the direct rays of the sun. During hot and dry weather a gentle spray overhead will prove beneficial, and for such work I confidently recommend the Abol syringe. Thrips are sometimes troublesome, especially if the houses are situated near a lot of hardy plants; but these can be held in check by vaporising the division with XL All directly thrip is seen. This will be needed less frequently if the inmates are sprayed over about once a fortnight with some reliable insecticide, but on no account must the directions as given on the bottle be exceeded, but rather use the solution weaker.

SENTINEL.

EARLY LETTUCES.

IN every small garden where there is a heated greenhouse or pit some early Lettuces may be grown without any great difficulty. Early Cabbage varieties, such as Tom Thumb, are the most suitable, as they form nice plump hearts early and do not take up much space. The seeds must be sown very thinly in boxes filled with a fairly rich compost, and in due course the resultant seedlings must be transplanted in a firm bed of rich soil in a frame. If a mild hot-bed can be made up, the progress of the Lettuces will be very rapid: but care should be taken to allow any excessive moisture to escape, otherwise the leaves will damp off badly. The bed of soil need be only 5 inches deep if a small quantity of well-rotted manure is placed on the surface of the hot-bed prior to the placing of the soil there. Put the young plants in rows 7 inches apart and the same distance asunder in the rows. If a few seeds are sown monthly, a regular supply of tender Lettuces may be secured up to the time when those planted in the open air will be available. Mustard and Cress may also be grown in boxes placed on the warm bed, or in the soil of the bed itself, as only about 1 square foot at a time will be required for the purpose.

B.

PROTECTING PLANTS FROM FROST.

VARIOUS are the measures taken for protection, and I venture to say that more plants are ruined and killed by these means than by letting them, to a certain extent, rough it. The system of covering up plants completely does not commend itself to practical people; indeed, when a plant is covered up entirely with whatever material is used, and this material is allowed to remain it is most weakening. The growths become, if the weather is wet, almost a putrid mass, and through keeping them dark and warm, young growths are hastened, only to get severely cut by cold winds when uncovered.

Plants that are considered tender should, in the first place, have the roots thoroughly protected; and the best way to do this is to place ashes or dry fine peat over them in sufficient quantity to exclude all ordinary frosts. This will be found enough protection till we get over 15°. When a lower temperature is recorded, cover tender plants lightly with dry Bracken, which should have been cut and dried and stacked in the autumn, or, failing this, branches of Heather or common Laurel. These latter, of course, are too heavy to rest on tender plants, so the points should be stuck into the ground and the branches placed over the shrub or plant. In the case of such Palms as Chamærops excelsa, a dry whisk of Bracken placed around the collar to prevent the snow and wet getting down into the heart of the plant will be found sufficient, and this can be left on till about the third week in March.

Plants growing on walls should also have the roots protected, and in severe frost mats or Frigidomo placed over them while hard frost lasts. Immediately the frost has quite gone, uncover the top at once, but the covering over the roots should not be moved till March. I have noticed that specimens of that beautiful plant Fabiana imbricata have done better and stood better without covering than did those that were covered, but the roots were protected. Camellias with us rarely require any covering. Fremontia californica has a few branches put over it in very sharp weather. This class of plant is always better when not covered up too much, but more protection should be given if the weather intensifies in severity. I do not believe in wholly covering up plants, as the supposed remedy is worse than the weather. In exposed positions the more tender Hydrangeas should have the roots protected, and in very sharp frost the tops slightly protected. The material must be laid on lightly so that the weight does not crush them. Large branches of unripened Beechwood, which holds its foliage, is a capital protection, and in frost can easily be let into the ground with a crowbar. Fatsia, or Aralia, can and should be protected in the same manner. We have Abutilon vexillarium on a wall now most beautiful, and it has not as yet been covered this season. This beautiful plant is far more hardy than most people believe, the plant in question having been planted out three years and remained unharmed. Daphne japonica is also unharmed and flowers beautifully, and is quite equal to D. indica rubra, which is grown indoors.

Sussex. C. A. W.

3.—AFTER POTTING, THE SURFACE OF THE COMPOST IS NEATLY TRIMMED WITH A PAIR OF SCISSORS.

THE TOWN GARDEN.

THE CLOSING CHAPTERS.—We are told that there is an end to all things, and we imagine also that there must be an end to "The Town Garden" column of any year, though this need not—could not—extend to the town garden itself, seeing that it is so frequently encompassed by circuitous walks and paths which, while leading one and all to the house, may yet lead out again by quite a different way. To-day, however, we are confronted by a final effort, so to speak—a sort of farewell sermon, if my readers will—and which, having in the past weeks and months referred—figuratively it may be, and perhaps all unconsciously—to the "first," "secondly," "thirdly" and "fourthly" of such sermons, must of necessity introduce all the other heads or sections till the "finally," "lastly" and those few words "in conclusion" are reached in a quite orthodox fashion. "The Town Garden" column is more of a necessity than ever before, and city workers, realising in greater degree Lord Bacon's testimony that "gardening is the purest of all human pleasures," revel in a recreation which is at once refreshing, health-giving and elevating.

A WELL-KEPT GARDEN.—By "well-kept" I do not suggest elaborateness, but rather those details of neatness and trimness we are so pleased to note among our fellow-men. A garden, be it large or small, may be as much an index to the mind and the home of its owner as the clothes we select for our personal wear is to our tastes and preferences in such matters, each in its way being but a reflection of the mind on matter. Hence the garish-looking garden is never the outcome of quiet, sober tastes, since the latter will be content to aim at the perfecting of harmonies rather than to dream of satisfaction in flaring masses of colour which, while inflaming the vision, but render it unfit for a more complete enjoyment of those greater beauties of plant-life—form and the like—whose greatest of all charms is simplicity.

THROUGHOUT THE YEAR, indeed, the one object I have had in mind in penning these notes has been simplicity, coupled with a desire to raise the town garden to a higher level than before, to endeavour to bring its owner out of the commonplaces of things, to show him that there should be a time when he must cease from writing to copy-book patterns and endeavour to form a hand of his own. That, in other words, he might well be, if only an amateur gardener, an original one to boot, one whose clear vision will carry him beyond the limits of the moment and reveal all the possible or probable effects of any colour scheme or combination he may have conceived. To those who can enter into gardening on such lines as these a garden must prove a source of unbounded interest throughout the year, an interest as deep in December or January as in June or July, since the creations to which the first-named months gave birth will in the latter be repaying with interest a thousandfold the timely thought and intelligence bestowed so long before. From such gardening as this might well be expected much of that "Art which doth mend Nature," as Shakespeare has it; and if on these lines I have assisted any of the many readers of THE GARDEN to think as well as work, then my task will not have been undertaken in vain.

A GREATER MEASURE OF SUCCESS might, in all probability, have attended my efforts to interest my readers had the latter much more frequently made known their wants, since by laying bare their likes and dislikes, by stepping on the first rung of the ladder leading to success, an interest is aroused which is nothing if not infectious, nothing if it does not lead to those deeper interests which, creative of enthusiasm, bind all gardeners together, amateur and professional alike, as by one common yoke. That such gardening has in the past existed and will continue in the future must be regarded as my few words "in conclusion," to which I need scarcely add the pleasures of such gardening in the years to come.

E. H. JENKINS.

NEW PLANTS.

ODONTOGLOSSUM CERES MAGNIFICUM (O. Rossii majus × O. Rolfeæ).—This remarkable and beautiful hybrid attracted a good deal of attention, albeit the exhibited plant was a small one, in the early years of its flowering. The two oppositely disposed inner petals are heavily blotched with brownish crimson and margined with white, the outer sepals being almost wholly chocolate coloured. The elongated lip is white with a suffusion of rose. A handsome and distinct plant of great merit. Exhibited by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

Miltonia Warscewiczii leucochila.—Presumably a geographical form of the typical species, having its origin in an importation from Columbia. It is, as indicated by its varietal name, a white-lipped form of the type, the waved sepals being decidedly narrower and more reflexing, broadening somewhat at the tips, where they are touched with white. The long, broad lip is heavily bordered with white, and is rendered conspicuous by the big purplish blotch, into which is also infused shades of rose and yellow. From Messrs. Charlesworth and Co., Hayward's Heath. Award of merit.

Cypripedium Dante rotundiflorum.—The varietal name is descriptive of a very handsome and beautiful variety having its origin in C. Hero Euryades × C. Charlesworthii. From Lieutenant-Colonel Sir George Holford, K.C.V.O., Tetbury. Award of merit.

Lælio-Cattleya Pauline (L.-C. Ophir superba × C. labiata alba).—In this pretty and fascinating variety the dominating tone is chrome yellow or palest orange highly rectified, a lighter shade pervading the lip, which in its lower parts is rather strikingly veined with purple. From Lieutenant-Colonel Sir George Holford, K.C.V.O. Award of merit.

Cypripedium Gaston Bultel (C. Mme. Coffinet × C. fairieanum).—The bold, imposing dorsal sepal of this variety commands attention at once, the ground colour being of brownish mahogany and bordered with white. The petals, which are slightly waved at the upper margin, are coloured a brownish hue in the upper half and yellowish green below. The lip is of brown colour. Exhibited by Mr. E. V. Low, Hayward's Heath. Award of merit.

Several varieties of Dandelions were brought up from the society's gardens at Wisley, Early Improved, from Messrs. James Veitch and Sons, receiving three marks; and Improved Broad-leaved, from Messrs. Barr and Sons, receiving two marks. All the above were shown before the committees of the Royal Horticultural Society on the 21st inst., when the awards were made.

ROOT-PRUNING FRUIT TREES.

THE root-pruning of fruit trees is a matter that requires very careful consideration. It is not advisable to root-prune every tree simply because it has made a lot of strong growth and borne no fruit, unless such specimens are growing in very good soil. If a young tree planted in a comparatively poor soil has made strong, free growth, it would be unwise to root-prune it at once. During the first two or three years such trees are using up the nutriment contained in the soil, and the time will soon come when specimens of this kind will require much feeding in order to keep up their strength for fruit-bearing. In the meantime the chief work of the cultivator will be to prune the branches in a judicious manner, so that there will be a good foundation laid and a strong tree built up, open in the centre, with sturdy side branches which will in due season be well studded with fruit-buds, flowers and fruit.

To straightway root-prune a young tree of this description would be to stunt it, to dwarf it too much, and then a lot of valuable time would be wasted in trying to build it up into a good average-sized specimen. The tree, however, growing luxuriantly in a rich, deep, strong loam requires root-pruning without a doubt. While visiting a gardening friend one day I remarked on the extra strong growth his young fruit trees had made, and added that he would have to set to work and root-prune them. "Why," he replied, "I have been root-pruning all of them nearly every year since they were planted, and it seems I shall be obliged to continue it for some years to come." The soil in which the trees were growing was a very deep, rich yellow loam, and the annual shoots made were as thick as an ordinary walking-stick. The ground had not been manured. In such instances root-pruning is the only way to restrict the annual growth and to bring the trees into a fruitful state. When once they do bear a crop—one considered a good average crop—the annual growth of branches is not so strong.

Root-pruning may be done any time between the middle of October and the end of February while the weather is open and not frosty, but during a dry spell in the autumn is the best time. Not only is it much more pleasant to work in the soil while the latter is dry than when it is wet, but the trees also do better afterwards. Root-pruning means taking out a trench deep enough to expose the lowest roots and the cutting back of the strongest fibreless roots, then filling up the trench with soil again and making the material firm. A tree with a stem 2 inches in diameter about 1 foot above the soil may have its roots pruned by opening a trench 18 inches distant from the stem. If the stem of a fruit tree is 5 inches in diameter, the trench should be about 3 feet 6 inches away. It is better to open a wide trench than a narrow one; then the workman can do the necessary operations more easily. On one side the trench may be made deeper than on the other, so that the tap-root can be got at and removed. Extra strong-growing trees may be root-pruned all round at one time; others pruned on one side one autumn and on the other side the next. Every tree root-pruned must be well staked at the time.

AVON.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, 20, *Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant.*

FLOWER GARDEN.

Herbaceous plants (*Mrs. Ford*).—It would be most unwise to attempt the planting now with such a soil as you describe and the heavy daily rains which are being experienced. By all means lay the plants in in sand, leaf-mould, coal-ashes or what you will, and if, in addition, you can afford them the protection of a wall, no harm will ensue. As it is not improbable in the case of your heavy, clay soil that the plants will have to remain for a couple of months, the heeling or laying in should be done with discretion; that is to say, wet bandages of paper, straw or other decaying matter, if such exist, should be removed from about the roots of the plants, which would then be free to form new fibres when the weather improved. It would not be advisable to plant in such a soil before February or March.

Top-dressing a lawn (*G. J. B.*).—You may safely give your lawn a dressing of manure and leaf-mould mixed, and the work may be done at any time now; the sooner the better, however. If you could give another dressing next May—of fine sand in this case, though—so much the better. Sand helps to form a firm surface and encourages a dense growth of the finer grasses. Loose or poor turf has frequently been improved by alternate dressings of manure and sand. The putting greens on some golf courses are dressed with sea-sand in order to encourage a dense growth of fine grass.

Decorative Chrysanthemums and other queries (*L. B. W.*).—The following are all good for the purpose you have in mind: Source d'Or and Lizzie Adcock, bronze and gold respectively, October; Freda Bedford, orange, bronze and apricot, October and November; Felton's Favourite, white, and R. F. Felton, rich yellow, October and November; Ivory, white, November; Caprice du Printemps, cerise, October and November; Moneymaker, white, November; François Pillon, rich yellow, December; and Baldock's Crimson, December. The question of carrying a large number of serviceable blooms is very much in the hands of the grower, his knowledge of Chrysanthemum cultivation and of the varieties in hand in particular. An early start is, however, an essential item. The Black Currants need not be shortened unless there is an inclination to blow about; then it may be done to about one-third of their length. All the forms of Pyrus Malus are delightful for the purpose you name. You cannot make a mistake by planting any or all of them.

Carpet bedding (*Ray Mead*).—Among dwarf-growing plants suitable for carpet bedding may be specially mentioned Alternanthera amabilis, green, rose, red and yellow; A. amœna, orange, red and purple; A. paronychioides major, bronze, tipped with orange; A. p. m. aurea, golden; and A. versicolor grandis, pink, crimson and bronzy green. The description of these Alternantheras must only be taken as approximate, as the colouring depends so much upon position, weather and other particulars. Of silver-leaved plants, one of the most effective for carpet bedding is Antennaria tomentosa, another being Cerastium tomentosum. The best yellows are Spergula pilifera aurea, Lysimachia Nummularia aurea and Pyrethrum Golden Feather. Others that may be mentioned are Sedum glaucum, of a distinct bluish tint; and Mesembryanthemum cordifolium variegatum, a well-known and popular plant for bedding purposes. Of green-leaved carpet plants, the best are Herniaria glabra (dark green), Mentha Pulegium gibraltaricum and Veronica repens. For the edging of a formal bed there is nothing better than Echeveria secunda glauca.

Physaria didymocarpa (*Collapit*).—This plant is a member of the Crucifer family, closely allied to the genus Vesicaria. It is a native of North-Western America, where it is said to grow in deep sand on the Rocky Mountains. The plants grow about 6 inches high, and have a basal rosette of greyish canescent, obovate, spatulate leaves, from which is produced the branching stems and corymbs of yellow flowers. It requires a well-drained position in sandy soil in full sun.

Caltha monstrosa flore-pleno (*Stratford*).—This is a double form of the ordinary Marsh Marigold, a British plant and perfectly hardy. As it is growing in a tub, the roots may be more exposed to the vicissitudes of the weather during winter than if growing in the ground; therefore it would perhaps be well to bank some leaves or litter round the tub for protection against drying cold winds as much as from frost.

Violets (*Robert*).—For purposes of flowering it is well to remove all the runners as they appear, as these cannot be present without poaching on the energies or resources of the plant. The runners you retained might well serve for cuttings another year, and if the stem portion is shortened, the crowns may be dibbled in boxes of sandy soil or under any spare frame-light you may possess. Plants raised in this way are vastly superior to spring cuttings, because of their size, and make clumps fully twice as large.

Lilies and Anemones (*L. R. S.*).—The whole of the bulbs may be planted at any time now, the Lilies being the more important. In your light soil plant these about 6 inches deep, enriching it below the depth named with manure of a very short description. Both of the Lilies named by you are great stem-rooters, hence may receive rich soil above as well as below the bulb. The Anemones should be planted 3 inches deep and 5 inches or 6 inches apart. The soil should be well dug in each case and only moderately enriched for the Anemones.

Making a bog garden (*F. S.*).—Whether it is necessary to puddle an artificial bog or water garden with clay depends wholly upon the nature of the subsoil and the supply of water available. In all sandy or gravelly subsoils it is an absolute necessity, and requires to be done in no half-hearted manner. In all such no less a thickness than 6 inches, and better if 9 inches, of tempered clay, would suffice for the sides and bottom of a water garden, and rather less for a bog garden. In clay soils the mere tightening of the present soil would suffice. For fuller particulars please refer to an article on the subject in our issue of November 19.

Dahlia Glare of the Garden (*Non*).—The most probable cause for the change in your Dahlias that, in the absence of fuller particulars, we can assign is deterioration from lack of proper cultivation. Had you sent us blossoms in their day of flowering we could have given a more definite reply. What we should now like to know is whether the clumps have been replanted intact or divided occasionally before planting. All Dahlias are best increased by means of cuttings each year, and from these, or what are known as pot roots, *i.e.*, late-rooted cuttings which have been all along confined to their pots and not planted out, the best flowers are produced. We shall be rather surprised, when you have resorted to these methods of cultivation and given the plants a somewhat generous fare, to learn that they are no better, unless, indeed, it is a case of wholesale sporting. We suggest you try the above and, failing any improvement, send us flowers another season.

Carnations (*T. W. N. G.*).—If the Carnations referred to are the border kind, those raised from cuttings would assume a distinct growth from the layered stock, and, raised so late in the year as November, would not flower—or, if so, but sparsely—during the following year. Such plants have really been making themselves, and should flower well in the early summer of 1911. We most certainly advise you to leave them alone, as, the plants being large and healthy, they should give a good account of themselves another season. To ensure plants strong enough for flowering of the border kinds only, the best of the season's growth should be put down as layers, while the work of layering should be done as early as possible, say, about mid-July. Done at this time, the shoots root in about a month, and by mid-September are ready for detaching and replanting elsewhere. The secret of success in these matters is doing the work in good time and securing only the strongest shoots available.

Gladiolus (*Anxious, Hinckley*).—There must have been something radically wrong either with the bulbs or your treatment of them for you to lose one-half, but the cause of it we cannot now determine. All Gladioli prefer a rather rich loamy soil, and the ground should be prepared in autumn or winter by trenching and by affording a heavy dressing of manure as the work proceeds. Manure that has been stacked for a year is best, and of such as this, dug deeply into the soil three months before the planting-time arrives, a heavy dressing might be given. As you say nothing to the contrary, we presume that the bulbs were sound and good when received. Are you sure you kept them free from frost? Occasionally a corm will rot at the crown, and then no growth is made; but such a defect is easily traceable at planting-time. As you employed no manure this year, you should give a much heavier dressing when digging is done. The corms should be planted in March and be buried not less than 4 inches deep. After the winter digging give a dressing of lime to the surface, and later fork it in.

TREES AND SHRUBS.

To obtain tall standards of Evergreen Oaks (*L. J.*).—It is improbable that you would do any good by planting stocks of the common Oak and grafting pieces of the Evergreen Oak on to them after they were established. It would be far better to try and procure specimens similar to those you require ready for planting. We do not know where you would be likely to obtain them, but it is probable that Messrs. Sander and Sons of St. Albans would be able to supply them through their Continental house. You would do well to delay the planting until next May, unless the plants can be procured established in tubs.

Clematis failing (*Beginner*).—The cause of your Clematis not flowering satisfactorily during the past autumn was probably due to the cold and wet summer. Mildew appeared on account of bad weather, and that affected the flowers. We should say that your plant will grow again satisfactorily next year, and advise forking a little well-rotted manure into the soil round about the plant. The ground evidently contains sufficient lime already. The pruning you mention is quite right.

A large Wistaria (*Hants*).—You may go over your Wistaria at once and remove any branches which are interfering with your windows. While the work is being done you may be able to lay a few young branches in against the wall to take the place of the old ones which are badly placed. Any young shoots which are not required for such a purpose ought to be spurred back to within two or three buds of the base, for the more short spur growths that can be obtained the more flowers will appear. Next year the branches may be cut back in July, which will give the flower-buds a better chance of forming and of becoming well ripened.

Camellia buds dropping (*J. P.*).—The reason for the buds of your Camellia dropping may be traced to a variety of causes. An unhealthy condition of the roots would cause the trouble, whether resulting from bad drainage, sour soil, too much water, or little water. A too heavy crop of buds is also likely to cause bud-dropping. This, however, is easily remedied by thinning the buds A shortness of food material results in this trouble, while, curiously enough, too high feeding causes a similar loss of buds. We should suggest that there is some root trouble, and advise you to make an examination of the roots. If the drainage is bad and the soil poor, replace them by good drainage and good soil.

THE GREENHOUSE.

Palm declining (*A. B. C.*).—Your Palm is undoubtedly in a very bad state, and we are afraid that it will be beyond your power to save it. The fact that it does not absorb moisture in a proper manner at once suggests that the drainage is at fault, and this, combined with the check of being removed from a warmer atmosphere, has in all probability affected the roots and led to the leaves dying off. Once a Palm falls into ill-health in this way it is exceedingly difficult to revive, the general and most successful practice followed being to plunge it into a bottom-heat in a warm house and syringe frequently, taking care at the same time that the soil does not get too wet. Any fertiliser or stimulant would be worse than useless till the roots have recovered their normal healthy state, and are thereby in a condition to absorb the nourishment.

Chrysanthemums failing (*E. J. K.*).—It is not at all surprising that your Chrysanthemums have failed if they are potted in a compost made up solely of road scrapings and leaf-mould, even if both were of good quality. For Chrysanthemums the staple portion of the compost should consist of good fibrous loam, lightened when necessary by a little leaf-mould, well-decayed manure and rough sand to which a few crushed bones have been added. When the pots are full of roots the necessary stimulus is supplied by means of liquid manure. Your leaf-mould, too, is of very poor quality, the best being made from Beech and Oak leaves, though those of the Elm are not so bad as the others named by you. Those of Plane, Walnut, Chestnut and Sycamore are not at all desirable for the formation of leaf-mould. Again, road scrapings must nowadays be used with very great caution, for various chemicals are often employed to keep down dust, to disinfect the road or for other purposes, while the great number of motor-driven vehicles render the scrapings of the roads very different from what they used to be. If the material comes from roads on which there is nothing but horse traffic, it is very useful for mixing with the potting soil or for various purposes out of doors, but, as above mentioned, when mechanically driven vehicles use the road the scrapings therefrom must be regarded with a considerable amount of suspicion.

"Picture" Plants (*V. Richardson*).—By "Picture" Plants we presume you mean Pitcher Plants, that is, the different members of the genus Nepenthes. These seldom flower under cultivation, and even if you obtained flowers they would not serve your purpose in any way, as it is not the flowers but the pitcher-like appendages at the ends of the leaves which entrap insects. Any of the species (not varieties, for which you ask) will serve to illustrate your paper. Two of the cheapest kinds are Nepenthes phyllamphora and N. Sedenii.

FRUIT GARDEN.

Grapes not colouring (*F. J. B.*).—Seeing that your Vines are perfectly healthy, and that the bunches and berries have swelled to a good size, it is evident the roots of your Vines are in good order; therefore the cause of the non-colouring of your Grapes must be looked for somewhere else than the roots. Do you think the wood of the previous year's growth was well ripened? If not, start your Vines a little earlier and give them a longer season to mature next year. This is sometimes the cause. Have you cropped your Vines too heavily? Even with a heavy crop Vines will often swell their fruits to a fine size; but we have never known an overcropped Vine to colour its Grapes well. Have you given plenty of air while the Vines were colouring, with a little heat in the pipes as well to prevent the temperature falling too low? Do you think there is sufficient lime in the soil of your border? Apply more this winter or spring; it cannot do any harm.

Four best varieties of Grapes for showing purposes (*Constant Reader*).—Considered only from the point of view of exhibiting, we do not think you can improve upon the varieties you mention when limited to four varieties, the only difficulty we can see in the inclusion in the same vinery of Muscat of Alexandria and Madresfield Court being that the latter succeeds better under moderately cool treatment and the former under a higher temperature. The Madresfield Court, we think, would succeed better with the Maroc and Hamburgh, and as the Maroc is of poor quality for dessert, you would not be likely to plant many of it. Why, then, not plant these three together and devote one vinery entirely to Muscat of Alexandria? If you decide to include the Madresfield Court with the Muscat, it should be planted in the cool end of the vinery. Why not leave a rod or two of Muscat Hamburgh in the Muscat house? It does very well with many when worked on the Black Hamburgh, and, as is well known, it tells heavily on the exhibition table when well done. There is more than one so-called variety of it. Mr. Goodacre's variety is a good one.

Black Currant trees overcrowded (*S. C.*).—You should, in the first place, bear in mind that next year's crop of fruit is borne on the young branches, and therefore be careful in pruning to leave enough of these on each bush. After saying this, we would advise you to cut out many of the oldest and weakest of the branches right back to the base from which they spring, and so let some light and air into your bushes.

Red Currants (*S. C.*).—These may be thinned out in the same way, but the pruning is rather different. The young wood of the Red Currant should be cut back, the side shoots (which grow out of the main branches) to within three buds of their base, and the shoot at the top of the main branches shortened by one-third its length. White Currants should be treated in the same way. Gooseberry bushes should be pruned and thinned in the same way as Red and White Currants.

Plum trees dying off (*S. C.*).—Try the effects of a dressing of bone-meal, say, half a gallon to a tree. In the first place, clear away any grass, weeds, or anything which may be growing over the roots of the trees. Dress the ground over with the bone-meal as far as the roots of the trees extend, and then fork the ground about 4 inches deep, and so mix the manure with the soil. When this is done, place a layer 4 inches deep of well-decayed farmyard manure over the ground forked over. If your trees have not gone too far, this treatment will help to bring them back to good health.

Gooseberry sawfly (*G. T. W.*).—The winter treatment for the Gooseberry sawfly lies in the removal of the surface 3 inches or 4 inches from about the bushes and burning it. This will destroy chrysalides. If there is any difficulty in burning the earth, it may be buried deeply in a hole some distance from the bushes and replaced by fresh. Quicklime placed under the bushes and deeply dug in in autumn may be of some benefit.

Gooseberry trees to train up the sides of a tool shed (*C. E. F. M.*).—Yes; no doubt the bushes could be repruned so as to make them adaptable for growing as fan-shaped trained trees against the wall. Select as many of the long shoots of the bushes for training as is necessary (they should be 10 inches or 1 foot apart), and then cut in the front part of the bush severely to bring into a flat shape. The Champagne variety is not so free-growing as many, but we have no doubt it will soon cover its allotted space. Whitesmith will soon do so.

Pear Beurre Hardy not setting its fruit (*H. A.*).—We think the cause must be that the flowers are weak and devoid of pollen. Take the precaution of shaking the branches of the tree well while it is in bloom. This will help to distribute the pollen and to set the flowers. We suppose your tree cannot be dry at the roots. Take the opportunity this winter, if you can, of giving your tree a thorough good soaking of manure-water from the cow or stable yard two or three times over. It will enrich the soil and do the tree a lot of good next year. Never mind whether you think the tree is wet enough or not, give it the soaking all the same. The way to prune your tree is to cut back all the young shoots of this year's growth which grow out of the side of the branches to within two buds of their base and to shorten the leading young shoots (at the end of each main branch) by one-third their length.

Apple shoots for examination (*Belinda and B. F.*).—The Apple stems are very badly attacked by the mussel scale. The scales on the stems are formed by the female insect to cover her eggs, and precautions should be taken to destroy all of them before the eggs hatch in the spring. The tree should be thoroughly sprayed with an alkali wash made by dissolving 2lb. of caustic soda (98 per cent.) in 10 gallons of water to which is added ¾lb. of common treacle. This should be done about the end of February. We fear there is also some American blight; this should be fought by spraying vigorously now, and in the summer painting all the wounds with methylated spirit. The Pear shoots appear to have been very badly attacked by the Pear scab fungus (Fusicladium pirinum). All such shoots should be removed and burnt, and the tree sprayed next spring and summer with half-strength Bordeaux mixture, as advocated several times lately in our columns.

To prune a Pear tree (*W. J.*).—We presume our correspondent is alluding to side growths which have been summer pruned. These should be further cut back to within two buds of their base at the winter's pruning, but the leading shoots of this year's growth at the end of the main branches should only be shortened by one-third of their length. It would be possible to cut the shoots back to within two eyes as stated above. The best way is to prune to five eyes at the end of July (not June) and then to two eyes in December. We think that Clay's Fertilizer would be better for the pot plants. It is a splendid manure, and very little of it goes a long way. To prune Peach trees at this time of the year, thin out the weakest growths when there are too many shoots on the tree. You must bear in mind that the crop of next summer is borne on the young shoots of last summer's growth, and therefore you must leave plenty of these on to secure a crop. The Peach requires little pruning in winter when the summer pruning of the tree has been properly seen to.

ROSE GARDEN.

Preparations for planting Roses (*Stratford-on-Avon*).—It is sound practice to replace manure at the bottom of the trench when dealing with a gravel subsoil, because the manure acts as a preservative of water, and by the time the manure is well decayed the roots will find it out, and soon show by the healthy growth that they appreciate it. By so doing does not preclude one from admixing well-decayed manure with the soil. If such manure is well rotted, as that from a spent hot-bed, it can do no harm if some of it comes in contact with the roots. When we pot up Roses we mix manure with soil, and they do not take harm thereby. After covering the roots with soil at the time of planting, and just before the top soil is filled in, give each plant a small handful of bone-meal. This is an excellent and lasting food for Roses. We do not advocate covering the soil with manure after planting. This keeps the roots cold and wet. Leave the soil as rough as possible. Any extra feeding required can be afforded in May and June when the Roses are in active growth and when their roots can absorb the nutriment. Rose roots go down deep if there is good food for them, and by encouraging this we reap the benefit in a hot, dry season, as the roots are well away from the dry surface.

Roses in cold greenhouse (*West Sussex*).—You do not inform us as to the size of the pot the Roses are in, or whether the plants have been repotted or not. Supposing they have not been repotted, it will be well to top-dress the plants now. Remove about 1 inch to 2 inches of old soil and replace this with good compost consisting of equal parts each of fine loam, well-decayed manure or Hop Manure, and about half a part each of sharp sand and bone-meal. Mix all well together, then give about the same quantity of compost as that removed, and ram it lightly with a rounded stick. The crocks should also be examined to see if they are clogged or not. If they are, then clear or give new crocks. Allow the plants to remain in the cold house and prune them in February, cutting back the growths to within 3 inches or 4 inches of their base. Some of the weaker shoots cut back to two or three eyes.

KITCHEN GARDEN.

Celery diseased (*P. H. J.*).—It is very seldom that the Celery is attacked by a fungoid disease such as your plants are suffering from so badly. We can only call to mind (from a long experience in the growth of Celery) two similar instances, and both happened during the continuance of a long spell of wet weather such as we have recently experienced, and to which we attributed the attack. Nothing can now be done to clear your plants of the fungus, but it would be well to burn or bury deeply the affected leaves.

Celery said to be unsatisfactory (*R.S.O. Yorks*).—The Celery has not bolted, and we can find no fault with it, excepting that some of the leaves bear marks of having been slug-eaten, which occasional dusting with soot and lime would prevent. If crisp, juicy Celery of the best quality must be had, abundance of manure will have to be provided for the crop. The ground for other crops afterwards need not be manured for a couple of years. The flavour of yours we do not consider over-good, and would advise you to grow the old varieties Major Clarke and Sandringham White. They are sweeter and better than the showier larger sorts.

Damage to Carrots and Potato (*J. T.*).—The greater part of the damage to the Carrots appears to be the result of a check to the growth followed by the intake of a great amount of water, causing them to split. Early Carrots often suffer in this way. There was in one of them the caterpillar of the swift moth. This white grub should be destroyed whenever found in digging. It feeds on the roots of many kinds of plants. The Potato is affected by one of the many forms of scab, probably in this case due to some grubs attacking it in the early stages of growth. The soil would probably be improved by a dressing of lime and rendered thereby distasteful to the insects.

Garden soil (*A. T. U.*).—Garden soil that has had nothing upon it "but weeds for three years" will require a lot of preparing before exhibition vegetables of a high quality will be forthcoming. Hence you should proceed at once to trench the entire area two spits deep, using well-decayed farmyard or stable manure, digging this in 12 inches deep. With the digging completed, give a dressing of lime, one bushel to each rod of ground, first placing it in bushel heaps and covering it with soil. In a few hours it will have slaked thoroughly, and then may be thinly spread and at once forked in. Artificial manures would be of little use in the circumstances.

MISCELLANEOUS.

Destroying weeds (*R. A.*).—Bistort naturally grows in a rather damp and somewhat acid soil. Drainage and the application of lime will cause it to disappear. Constant cutting off of the leaves as soon as they appear above the ground will kill out Garlic; but if it is desired to thoroughly exterminate it and quickly, nothing short of digging it up bodily will answer.

Various questions (*Enquirer*).—The specimen you send for name is Selaginella kraussiana, a native of South Africa, &c. It is not a Fern, but is closely allied to the Ferns. The conifers you enquire about, Cupressus lawsoniana and Thuya plicata, may be pruned at once; but do not do any more pruning to them than is absolutely necessary, for it is a mistake to regularly prune such trees. Pruning is apt to impart a stiff, formal appearance, which is quite out of character with such things.

Killing weeds in ponds (*William Gunston*).—It is possible to kill some of the low forms of pond weeds by adding copper sulphate to the water at the rate of 2½oz. to every 10,000 gallons of water. The bulk of water must be calculated; then the proper amount of copper sulphate taken and either dissolved in water and syringed evenly over the surface, or be tied in a canvas bag and be dragged backwards and forwards through the water until all is dissolved. As the copper sulphate is poisonous, care must be taken by the user not to let it come in contact with broken skin or the hands, arms or other parts of the body.

The "Movements and Habits of Climbing Plants," by Charles Darwin (*V. Richardson*).—This is published by John Murray, Albemarle Street, London, W., price 6s. Other publications by the same author likely to prove of great service to you are "Insectivorous Plants," price 9s., and "The Different Forms of Flowers on Plants of the Same Species," price 7s. 6d.

Cactus fruit (*A. B. C.*).—The enclosed is a fruit of the Cactus plant, though your communication somewhat puzzles us. We think that the reason of the plant fruiting may be explained in this way: In cutting off the old flowers you removed only the one-time showy portion thereof and allowed the fertilised ovary to remain. This has in time developed into a fruit such as that sent.

Weeds from pond (*C. H. C.*).—The weeds in your pond are (1) Potamogeton nutans, (2) Elodea canadensis and (3) Lemna minor. Your only chance to get rid of these weeds is to thoroughly clean out the pond this winter; then, as new growth appears next spring, clear it off once a week as well as you can. A few ducks would probably assist in keeping it clean. Unless you thoroughly clean out all the mud, however, you can have no possible chance of keeping the weeds under.

Clover in a lawn (*M. P.*).—We are afraid that there is no easy way of getting rid of Clover from among the grass of a lawn. Try mowing twice a week next year, so that there is no possibility of any seeds being formed, and give a good dressing of fine sand, sea sand for preference, with a dressing of spent Hops and soot next spring. This ought to encourage the grass to grow stronger and assist it to oust the Clover. In many places people encourage the Clover to grow, especially where the lawns are much used.

Moth for name and description (*G. C. G.*).—The moth is one of the Tineæ, the smallest of the Lepidoptera. It is called Cemiostoma spartifoliella, and, as the name implies, the larvæ feed on the leaves, &c., of the Broom. You might try the effect of spraying with a nicotine wash in the spring when the eggs hatch, but it must be done quite early in the season, or the grubs will escape. If you find them feeding outside the buds or leaves, spraying with weak Paris green at the rate of 1oz. to 25 gallons of water would probably do some good.

Tomatoes for inspection (*Rev. C. S. H.*).—The Tomatoes are attacked by the fungus Sclerotinia. The spores of this fungus are produced in all sorts of decaying vegetable matter, and the attack has apparently commenced where the stigma falls away from the fruit. The house is possibly kept too damp or close. Tomatoes are never so healthy as when in a warm, dry, well-ventilated position. Avoid manure, or at least over-manuring, keep all dead vegetable matter away from houses, and remove and burn decaying fruit. The fungus is at times a very troublesome pest of plants, both indoors and outdoors.

Screen for a garden (*Bonnie Brae*).—A Rose hedge in the position you describe would be very suitable, and would form the desired screen during next summer if strong-growing kinds are used. Poles of the required height should be inserted 6 feet apart, and wires 1 foot apart should be strained between them. A plant must be placed at the foot of each pole and its main branches carried along the wires. Suitable sorts are Crimson Rambler, Philadelphia Rambler, Tea Rambler, Dorothy Perkins, Hiawatha, Alberic Barbier, Edouard Proust, Elise Robichon, Una and Aimée Vibert. If you so wish it, a plant or two of the Loganberry and Cut-leaved Bramble (Rubus laciniatus) might be planted as well for the sake of their fruit. Provide good soil at the time of planting.

Gas-lime as a preventive against wireworm (*Constant Reader*).—Gas-lime varies very greatly in composition, even when it leaves the gasworks, and if it has been allowed to remain unused exposed to the air for any length of time, much of its efficacy is lost. The fresh material may be used at the rate of two tons to the acre (1lb. to the square yard) if a very bad insect infestation is to be fought, but this will probably be too strong for the plants to grow well next year. It may be dug in now. It is probable that as much good would be done by putting quick or unslaked lime on the soil in heaps at the rate of half a bushel to the square rod, allowing it to remain thus covered with a little earth until it crumbles up, then spreading it and digging it in. The cost of the lime might be a little greater, but the crops would not be prevented from growing in the succeeding year.

About Roses, Apples and Raspberries.—(*F. B.*).—The long stems of the Rose, instead of pegging them, should be secured to strong stakes driven firmly into the ground, tying the branches to them securely at the height desired. They could not then be blown about by the roughest winds. The Apple is unripe and undersized, and we cannot be certain of the variety; but if you will send us a good-sized fruit when ripe, there is no doubt we shall be able to name it. The fruit, especially the small one, is suffering from a bad attack of the Apple scab fungus. You should have your trees washed with Bordeaux mixture now and again just before the buds break into growth in spring. This mixture may be had from any seed merchant advertising with us, with directions how to apply. *Re* Raspberry canes, allow the tops to remain unshortened until the canes are pruned, say, in February. You have done quite right in cutting out the old, exhausted canes.

Name of fruit.—*Belinda.*—The Apple is Bismarck, and it was picked at the proper time. It will keep till March.

Names of plants.—*J. L., Bournville.*—1, Chlorophytum elatum variegatum; 2, Helxine Solierolii.—*W. Prosser.*—1, Sedum Sieboldii; 2, Fuchsia Kirkii.—*Herbert Jones.*—The Begonia is Buisson Rose.